

## 빠르게 혹은 느리게? 서비스속도가 솔로 외식경험에 미치는 영향\*†

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## Faster or Slower? The Impact of Meal Pace on the Solo Diner's Dining Experience

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\* 본고는 Bu, Ruoyu의 2020년도 석사학위 논문 「The Effect of Meal Pace on Solo Dining Experience: The Mediating Role of Perceived Fairness and Threat to Freedom and the Moderating Role of Communication Accomodation Style」의 일부를 발췌하여 재작성한 것임

† 본고는 QUIS 2022년 제17차 International Research Symposium on Service Excellence in Management 학술대회에서 발표한 내용을 기반으로 재작성한 것임

## Abstract

This study proposes that solo diners have unique needs such as fairness and freedom and that they mediate the effect of meal pace on solo dining experience. This study also posits that service employees' communication accommodation style moderates the effect of meal pace on the two reactions of solo diners. Data were collected through a three (meal pace: slow vs. neutral vs. fast) by two (communication accommodation style: convergence style vs. maintenance style) between-subject experiment using a total of 197 online scenario-based surveys for US residents. ANCOVA analysis demonstrated the negative effect of an undesirable meal pace on solo dining experience, where the negative effect was greater when the pace was slower than faster. MANCOVA analysis showed that the negative effect on perceived fairness is more salient when the pace is slow, while the negative effect on the threat to freedom is more salient when the pace is fast.

*Keywords* : Solo Diners, Dining Experience, Meal Pace, Perceived Fairness, Restaurant

접수일(2022년 10월 04일), 수정일(2022년 11월 07일), 게재확정일(2022년 11월 07일)

## I. Introduction

Solo consumption (i.e., one person's consumption) is becoming important to increase purchasing power. The current Covid pandemic is accelerating this solo consumption trend. Solo is defined as doing things alone in the marketplace and is termed "solitary" (Leary et al., 2003). Although the term "solo" is often used to describe "single" in marital status (Bouhleb et al., 2011), in this study we have focused on the solitary perspective of solo consumers irrespective of

whether they are married or not.

Due to its growing importance and hedonic nature, solo diners have received considerable attention as a hot emerging market. Despite the utilitarian purpose is considerable in fast-food solo dining (e.g., to eat quickly and return to work), a growing population of solo diners have begun to enjoy unique dining experiences for hedonic purposes (OpenTable, Inc., 2019). With this trend, restaurants have tried to relieve some of the negative aspects of solo dining experiences. That is, the feeling of being bored/isolated, resulting in the harmful effects on one's mental health and physical wellbeing. Restaurants have developed active strategies to accommodate solo diners, such as setting tables to be more friendly for solo diners.

However, the extant literature has showed discrepancies in regard to the mechanisms of the design of the service delivery process in the solo dining context. One of the controversial topics is meal pace. Some studies support that most solo diners look for quick meal options (The NPD Group, 2020), while others state that solo diners hate when they feel watched and rushed (Foster, 2020). Traditionally, solo diners are recognized as eating out alone at quick service restaurants for the sake of its quickness and convenience (Her and Seo, 2018), supporting fast meal pace design by restaurants. However, they might ignore the other unique needs of solo diners that seek freedom and indulgence without being disturbed. In addition, solo diners have a psychological need, which is they do not want to feel "not wanted" at restaurants. Solo diners need to receive fairness, and receiving equal treatment when dining alone (Rizzo, 2019). Because of this reason, the communication style of the service provider could be a critical contributor to successful service delivery, especially when customers feel rushed by verbal and non-verbal cues of the service providers (Noone et al., 2009). Thus, in this study, we employ 'meal pace' as a key research construct and focus on the effects of two contrasting communication accommodation styles: convergence and maintenance style.

Given these considerations, this study attempts to investigate the effects of meal pace (slow vs. neutral vs. fast) on a solo dining experience; the mediating effect of perceived fairness and threat to freedom on the relationship between meal pace and solo dining experience; and, the moderating effect of frontline service employees' action (using accommodating communication style: con-

vergence style vs. maintenance style) in reducing the negative impact of an undesirable meal pace on the reactions of solo diners.

## II. Theoretical Background and Hypotheses Development

### 2.1 Meal Pace and Solo Dining Experience

The two key sub-dimensions of time are pace and duration (Noone et al., 2009). Slow pace in service delivery proves to be a service failure, making customers spend their additional resource (time) in unwanted waiting (Noone et al., 2009). In the revenue management context, time is suggested to be one of the strategic levers for restaurants to maximize revenue (Song and Noone, 2017). When customers stay longer than expected, long waits occur, which could result in losing customers and revenue (Liu et al., 2018).

However, when service pace moves to the fast side of the continuum, revenue might increase, but customer satisfaction might suffer (Liu et al., 2018; Noone et al., 2009). In a dining experience context, both fast pace and slow pace could have a negative influence on customer satisfaction (Noone et al., 2009), indicating a reversed U-shaped pattern between these two factors (Noone et al., 2009).

In the solo dining context, a fast meal pace can make customers feel rushed, observed and hurried (Noone et al., 2009), which is working against the solo diner's hedonic dining experience (Claire, 2020). Although it is suggested that meals for solo diners will move more quickly than meals for group diners (Foster, 2020), solo diners still hate to feel watched and rushed (Foster, 2020).

Slow meal pace could trigger stronger negative reactions from solo diners. Solo diners are aware that they are viewed as less profitable consumers and therefore could be given a lower priority in service. Hence, slow pace can trigger the perception of an unfair wait (Walsh, 2009). Thus, we propose that undesirable meal pace negative affect solo dining experience and that the negative effect is greater in the case of slow pace.

**H1:** When compared to a neutral meal pace, both slow and fast meal pace will

negatively influence the solo dining experience, and the negative influence will be stronger in the case of slow meal pace than for fast meal pace.

## 2.2 The Mediating Effect of Perceived Fairness, and The Mediating Effect of Threat to Freedom

Fairness, in the service context is defined as, “a customer’s perception of the degree of justice in a service firm’s behavior” (Seiders and Berry, 1998: 9). It was previously proposed that the meal pace influences solo diner’s judgement on distributive justice (Greenberg and Tyler, 1987). People refer to two references when determining distributive justice, which are social comparison and predictive expectations (Kahneman et al., 1986). When using a predictive expectation, better outcomes than expected generate positive evaluations and vice versa. In the restaurant context, consumers felt dissatisfied with a wait longer than their expectation. On the other hand, When the meal pace rushes solo diners, they would feel that the restaurant does not provide the right product that includes implicit components associated to the meal, such as suitable time, space, and ambience for a customer to enjoy. Thus, the solo diners would feel the meal experience less valuable than they paid. Thus, we propose that a low perception of fairness could lead to a negative evaluation of the solo dining experience, and vice versa.

Freedom is suggested to be an important attribute in solo consumption research (e.g., Bianchi, 2016), as a driver of satisfaction from experiencing and inner feelings of independence (Bianchi, 2016). The concept of freedom covers many aspects of liberty in the dining context: to make one’s own choices in ordering food (McNeilly, 2017); to eat quickly and spend their time on whatever they want and when they want (Claire, 2020) such as watching videos, reading, or enjoying quality time; and, to eat whenever they want without making compromises.

When the meal pace is perceived to be fast, diners might feel forced to hurry their meal (Noone et al., 2007), leading to feelings of intrusive attempts by service providers, and thus a threat to the freedom of the diners. A slow pace may also lead to a perceived threat to freedom. A slow pace means that individuals must wait for the next step. Thus, solo diners could not select when

and how they conduct their dining behavior with a slow pace, and subsequently feel a threat to freedom. They feel irritated when feeling disturbed, intruded upon and lose control of their freedom.

We propose that a solo diner's negative reaction to perceived fairness is greater when the pace is slow than when it is fast. The unpleasant psychological forces in a fast meal pace are eliminated once a meal is served. Thus, we argue that compared with a fast pace, a slow pace could be more likely to be perceived as a barrier and leads to the perception of opportunity inequality, and subsequently results in a lower perception of fairness.

We propose that a negative reaction related to the threat to freedom is greater in the case of fast pace solo dining experience. The degree of intrusiveness on a person's freedom determines the degree of the consumer's response (Brehm and Brehm, 2013). We propose the following hypothesis.

**H2a:** The impact of meal pace on solo dining experience is positively mediated by perceived fairness.

**H2b:** The impact of meal pace on solo dining experience is negatively mediated by a threat to freedom.

**H3:** Solo diners' immediate negative reaction to undesirable meal pace differs between fast versus slow pace. Specifically, slow pace will lead to stronger perceived unfairness, while fast pace will lead to a stronger threat to freedom.

### 2.3 The Moderating Effect of Communication Accommodation Style on Perceived Fairness

The communication style refers to a one's verbal, paraverbal and non-verbal components in interpersonal interactions (De Vries et al., 2009). Communication accommodation theory (CAT) postulates that individuals tend to accommodate each other's behaviors during interaction (Gallois et al., 2005). There are three possible accommodation strategies: convergence, divergence, and maintenance (Soliz & Giles, 2014). A convergence style is adjusting to one's communication behavior to adopt their interlocutor's behavior and to increase the similarities

with each other (Gallois, 2005; Soliz and Giles, 2014). A maintenance style refers to sticking to their own initial style without changing the original communication behavior, and do not show any similarity to the other (Soliz and Giles, 2014).

When service providers use a convergence style, customers perceive that there is interpersonal justice. For informational justice, individuals evaluate whether they can gain an adequate explanation from management about the procedure, decision, and outcomes (Greenberg and McCarty, 1990). Thus, we suggest that the convergence style of service employees would attenuate a solo diner's negative evaluation of perceived fairness.

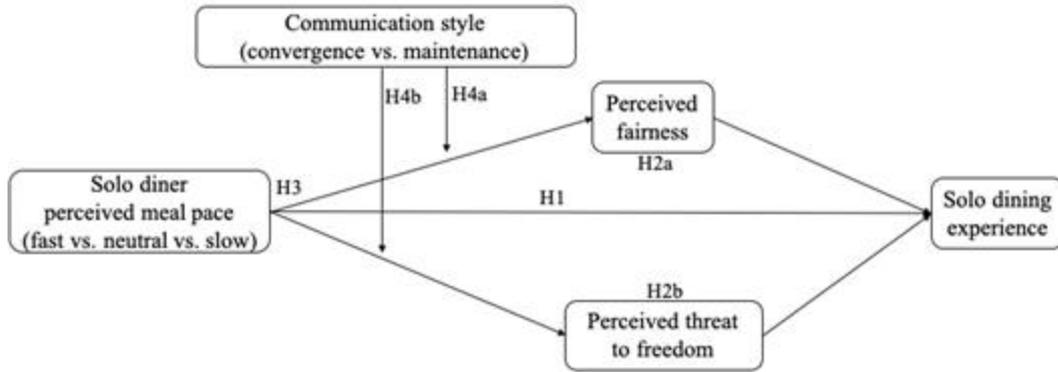
We propose that the convergence communication style moderates the relationship between meal pace and threat to freedom. Research on communication messages suggest that state empathy created during the process of sending out messages tends to reduce the perceived threat to freedom (Shen, 2010). Therefore, since the convergence style of service providers can offer the function of understanding customer's feelings and well-being (Rempel et al., 1985), empathizing with customer concerns (Sparks and Callan, 1992) and comprehending customers (Mohr and Bitner, 1995), can improve the similarity between the communicator and recipients (Sparks et al., 1997) and reduce the subsequent perceived threat to freedom.

**H4a:** The negative effect of fast or slow meal pace on a solo diner's perceived fairness will be attenuated by a service employee's use of a convergence (vs. maintenance) communication style.

**H4b:** The negative effect of fast or slow meal pace on a solo diner's threat to freedom will be attenuated by a service employee's use of a convergence (vs. maintenance) communication style.

Figure 1 depicts our research model which incorporates all the hypotheses proposed above.

<Figure 1> The proposed model



### III. Method

#### 3.1 Design

We tested our hypotheses through an online questionnaire manipulated by the following scenarios: A 3 (perceived meal pace: slow vs. neutral vs. fast) × 2 (communication accommodation style: convergence vs. maintenance) between-subjects experimental design.

We manipulated the actual meal duration in our experimental design to create variability in the participant's responses to the pace perceptions (Song and Noone, 2017). In all six experimental conditions, participants were first asked to identify the time duration they needed to enjoy their dinner alone, which consisted of a set menu including an appetizer, a main dish, and a dessert in a casual dining restaurant (Q). In the fast-pace scenario, the meal duration was informed as (Answer to Q - 0.5\*Answer to Q) minutes; in the neutral pace scenario, the meal duration was informed as (Answer to Q) minutes; in the slow meal pace scenario, the meal duration was informed as (Answer to Q + 0.5\*Answer to Q) minutes. For the realism of the scenario, durations were all approximated by rounding the numbers below to the nearest 10.

The service employee's communication accommodation style was manipulated by their form of address by using the solo diner's first name in a convergence style. Ainsley was chosen as the first name of the focal solo diner for its gender neutrality (Kim et al., 2019). The maintenance style was manipulated as: no empathy, no involvement, and using a formal speech style (Spark and Callan, 1992). After reading a scenario, participants were asked to complete manipulation checks of the communication accommodation style and the perceived meal pace (Noone et al., 2007).

Variables that could influence the effect of the perceived meal pace, communication style and solo dining experience were controlled in this study. The consumption purpose was controlled as a hedonic purpose by describing the respondent as traveling alone on business to a city which the respondent had never visited before, and he/she wanted to experience a casual dining restaurant which his/her friend recommended. Based on previous research on the perceived meal pace, the dining occasion (social), average meal price (\$15 per dish), and food quality (good) were held constant (Song and Noone, 2017). The setting was described as: a casual dining restaurant (Noone et al., 2007), the service stage as the overall dining process (Noone et al., 2009), and the meal type as dinner (Noone et al., 2007). Other potential confounding factors were held constant: the familiarity with the restaurant, table types (table for 2 diners or more), reasons for dining (hedonic and for a solitude experience), and the number of servers (one).

## 3.2 Manipulations and Measurements

### 3.2.1 Meal Pace

This study defines meal pace as the solo diners perceived tempo or rate of a solo dining experience, beginning when a solo diner is seated at the table and ending when the focal solo diner vacates the table (Liu et al., 2018; Noone et al., 2009).

Communication Accommodation Style Convergence style refers to how the service employees adjust their communication behavior to adopt to the focal solo diner's behavior (Gallois, 2005; Soliz and Giles, 2014), while the maintenance style refers to how service employees adhere to their own initial style, and do

not try to become familiar with the focal solo diner (Soliz and Giles, 2014).

### 3.2.2 Threat to Freedom, Perceived Fairness, and Solo Dining Experience

This study defines threat to freedom as the focal solo diner having no perceived ability to control their dining behavior (Brehm and Brehm, 2013). This study defines perceived fairness as a solo diner's perception of the degree of justice in a restaurant's behavior (Seiders and Berry, 1998). This study defines solo dining experience as the solo diner's direct experience of the solo dining process, the restaurant, and how the solo diner is treated by employees.

### 3.2.3 Revisit Intention and Word-of-Mouth Intention

This study defines revisit intention as the likelihood that the focal solo diner expects to revisit in the future. This study defines word-of-mouth as the likelihood that the focal solo diner would favorably recommend this restaurant after the solo dining experience (Maxham and Netemeyer, 2002).

### 3.2.4 Control Variables

We included five control variables in this study: (1) desire for social contact, (2) desire for solitary, (3) communal propensity, (4) self-esteem, (5) marital status. Desire for social contact and desire for solitary were controlled since the frequency and enjoyment of solitary activities are related to the degree of desire for solitude and solitary (Leary et al., 2003).

## 3.3 Sample

Data were collected through a crowdsourcing online participant pool MTurk (Amazon Mechanical Turk) from 5<sup>th</sup> to 10<sup>th</sup> June, 2020. Respondents were gathered from adult (18 years old or older) US residents who have dined alone in a casual dining restaurant at least once in the last six months for dinner. The definition of casual dining restaurants, such as the price range, table service, and casual ambience (Song and Noone, 2017), as well as some image examples were provided in the questionnaire.

A total of 693 responses were collected and 197 valid responses were used for data analysis (28.43% valid response rate). At least 30 responses were se-

cured for each of the six scenarios. The characteristics of the final sample were deemed representative of solo dinners; many characteristics of respondents are aligned with those of the findings of the Consumer Expenditure Survey (2018) conducted by the US Bureau of Labor Statistics.

## IV. Results

### 4.1 Manipulation Check

The manipulation check shows that this study successfully manipulated factors in the different scenarios. The realism check shows that all the six scenarios were recognized as real ( $M = 5.525$ ,  $SD = 1.272$ ), comfortable ( $M = 5.580$ ,  $SD = 1.505$ ) and familiar ( $M = 5.690$ ,  $SD = 1.382$ ) (Table 1).

<Table 1> Means and Standard Deviation of realism check, comfort and familiarity

Scenario	Realism check	Comfortable	Familiarity
Convergence * fast	5.394 (1.242)	5.700 (1.551)	5.820 (1.334)
Convergence * neutral	5.433 (1.419)	6.270 (1.311)	6.200 (1.031)
Convergence * slow	5.308 (1.467)	5.620 (1.444)	5.850 (1.288)
Maintenance * fast	5.203 (1.135)	4.970 (1.787)	5.310 (1.595)
Maintenance * neutral	6.000 (1.118)	5.820 (1.158)	5.610 (1.519)
Maintenance * slow	5.867 (1.025)	5.100 (1.447)	5.330 (1.348)
Total	5.525 (1.272)	5.580 (1.505)	5.690 (1.382)

Note: Mean (Standard Deviation)

To check the manipulation of perceived meal pace, a multiple comparison analysis was conducted between slow, neutral, and fast scenarios. The results revealed that the pace which respondents in fast-pace scenario perceived ( $M = 5.992$ ,  $SD = 0.817$ ) was faster than the neutral-pace scenario ( $M = 3.984$ ,  $SD = 0.269$ ) and the slow-pace scenario ( $M = 1.957$ ,  $SD = 0.794$ ), and these differences were statistically significant ( $p < .001$ ). To check the manipulation of the communication accommodation style, a t-test was performed. The results revealed that the respondent's perceptions of benevolence were significantly dif-

ferent ( $p < .001$ ) between when a service provider accommodated the convergent communication style ( $M = 5.412$ ,  $SD = 1.234$ ) and the maintenance style ( $M = 2.853$ ,  $SD = 1.455$ ) (Table 2).

<Table 2> Manipulation check of meal pace and communication style

Meal pace	Means1)	Standard deviation
Fast	5.992	0.817
Neutral	3.984	0.269
Slow	1.957	0.794
Communication style	Means2)	Standard deviation
Convergence style	5.412	1.234
Maintenance style	2.853	1.455

Note: 1) The larger the number, the faster the pace; 2) The more benevolent the service provider's communication style.

## 4.2 Reliability and Validity Tests

The following variables were tested that were used in the hypotheses: solo dining experience, perceived fairness, perceived threat to freedom, revisit intention, and word of mouth (WOM) intention. The Cronbach alpha of all variables were higher than 0.70, which could confirm the reliability of our measurements (Nunnally and Bernstein, 1994). The composite reliability (C.R.) and validity of all these variables were also tested. The C.R. of all these variables were higher than 0.70. The values of average variance extracted (AVE) were higher than 0.50 which confirmed the convergent validity (Bagozzi and Yi, 1988). Correlation of each construct were all higher than the square root of AVE which confirmed the discriminant validity. Since the discriminant validity and convergent validity were confirmed, the construct validity could be established (Table 3).

<Table 3> Reliability, convergent and discriminant validity

	Cronbach alpha	C.R.	AVE	Perceived fairness	Perceived threat to freedom	Solo dining experience	Revisit intention	WOM intention
Perceived fairness	0.973	0.973	0.948	*0.973				
Perceived threat to freedom	0.933	0.933	0.875	-0.616	*0.935			
Solo dining experience	0.976	0.976	0.954	0.863	-0.612	*0.977		
Revisit intention	0.956	0.957	0.917	0.844	-0.546	0.936	*0.958	
WOM intention	0.972	0.973	0.948	0.807	-0.491	0.868	0.929	*0.974

Note: \*The square root of AVE; C.R. means the composite reliability; AVE means average variance extracted.

### 4.3 Hypotheses Testing

#### 4.3.1 Meal Pace and Solo Dining Experience

To test H1, we first conducted ANCOVA. Solo diners perceived meal pace was recognized as an independent variable and overall solo dining experience was used as a response variable. Desire for social contact, desire for solitary, communal propensity, self-esteem and marital status were used as covariates. The ANCOVA results revealed that the perceived meal pace ( $F = 44.256, p < 0.001$ ) was a significant predictor of the overall solo dining experience. The overall solo dining experience was the highest when solo diners perceived the meal pace as neutral ( $M_{neutral} = 5.782$ ), followed by fast pace ( $M_{fast} = 3.938$ ), while the lowest was slow pace ( $M_{slow} = 3.345$ ). This shows that both fast and slow meal pace can lead to a negative evaluation of solo dining experience, and slow pace results in higher negative evaluation. This suggests that H1 was supported (Tables 4 and 5, and Figure 2.)

<Table 4> Results of tests of between-subjects effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
Results of ANCOVA of meal pace on solo dining experience						
Corrected Model	OS	261.842a	7	37.406	16.141	0.374
Intercept	OS	1.367	1	1.367	0.590	0.003
Desire for social contact	OS	4.664	1	4.664	2.012	0.011
Desire for solitary	OS	12.237	1	12.237	5.280*	0.027
Communal propensity	OS	4.967	1	4.967	2.143	0.011
Self-esteem	OS	6.233	1	6.233	2.690	0.014
Marital status	OS	2.055	1	2.055	0.887	0.005
Perceived meal pace	OS	205.130	2	102.565	44.256***	0.319
Error	OS	438.011	189	2.318		
Total	OS	4376.000	197			
Corrected Total	OS	699.853	196			
a: R2 = .374 (Adjusted R2 = .351)						
Results of Tests of Between-Subjects Effects on PF and TF						
Perceived meal pace	PF	135.456	2	67.728	27.864***	0.228
	TF	212.737	2	106.368	41.495***	0.305
Error	PF	459.391	189	2.431		
	TF	484.482	189	2.563		
Total	PF	4774.750	197			
	TF	2462.500	197			
Corrected Total	PF	649.358	196			
	TF	731.251	196			
Results of MANCOVA of the moderating effect on PF and TF						
Corrected Model	PF	290.541	10	29.054	15.061	0.447
	TF	319.413	10	31.941	14.426	0.437
Intercept	PF	6.283	1	6.283	3.257	0.017
	TF	9.902	1	9.902	4.472	0.023
Meal pace * communication style	PF	6.120	2	3.060	1.586	0.017
	TF	30.943	2	15.471	6.987**	0.070
Error	PF	358.817	186	1.929		
	TF	411.838	186	2.214		
Total	PF	4774.750	197			
	TF	2462.500	197			
Corrected Total	PF	649.358	196			
	TF	731.251	196			

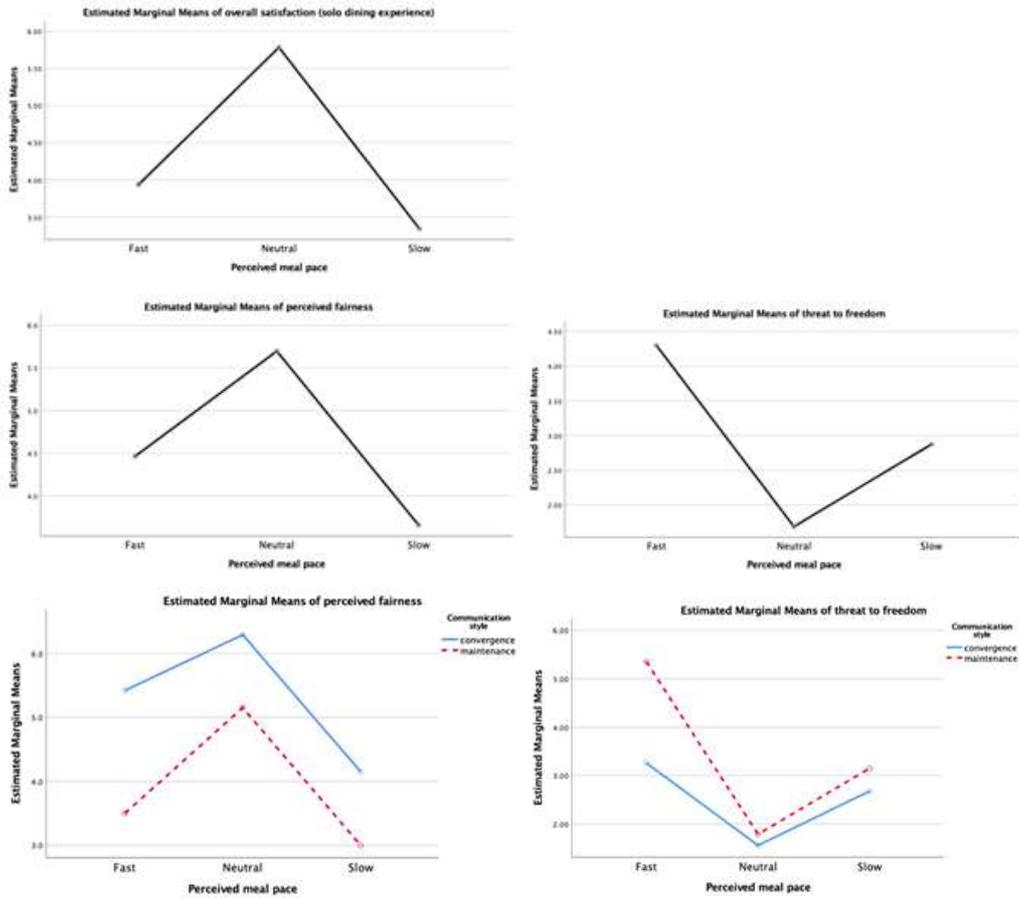
Note: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001; OS = Overall satisfaction (solo dining experience); PF = Perceived fairness; TF= Threat to freedom.

<Table 5> Results of pairwise comparisons:

1) Pairwise comparisons of solo dining experience in different meal pace					
Dependent Variable	(I) Meal pace	(J) Meal pace	Mean difference (I-J)	Std. error	
Overall satisfaction (solo dining experience)	Fast	Neutral	-1.844***	0.273	
		Slow	0.592*	0.264	
	Neutral	Fast	1.844***	0.273	
		Slow	2.436***	0.267	
Slow	Fast	-0.592*	0.264		
	Neutral	-2.436***	0.267		
2) Pairwise comparisons of perceived fairness and threat to freedom across the perceived meal pace					
Dependent Variable	(I) Meal pace	(J) Meal pace	Mean difference (I-J)	Std. error	
Perceived fairness	Fast	Neutral	-1.232***	0.280	
		Slow	0.805**	0.271	
	Neutral	Fast	1.232***	0.280	
		Slow	2.037***	0.274	
Slow	Fast	-0.805**	0.271		
	Neutral	-2.037***	0.274		
Threat to freedom	Fast	Neutral	2.610***	0.287	
		Slow	1.424***	0.278	
	Neutral	Fast	-2.610***	0.287	
		Slow	-1.186***	0.281	
Slow	Fast	-1.424***	0.278		
	Neutral	1.186***	0.281		
3) Pairwise comparisons of perceived fairness and threat to freedom across meal pace and communication style					
Dependent Variable	Meal pace	( I ) Communication style	( J ) Communication style	Mean difference (I-J)	Std. error
Threat to freedom	Fast	Convergence	Maintenance	-2.090***	0.378
		Maintenance	Convergence	2.090***	0.378
	Neutral	Convergence	Maintenance	-0.229	0.383
		Maintenance	Convergence	0.229	0.383
	Slow	Convergence	Maintenance	-0.471	0.367
		Maintenance	Convergence	0.471	0.367

Note: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

<Figure 2> Estimated marginal means



#### 4.3.2 The Mediating Effect of Perceived Fairness and Threat to Freedom.

The meal pace was set as an independent variable and overall solo dining experience was recognized as a response variable. Perceived fairness and perceived threat to freedom were used as mediators, and the desire for social contact, desire for solitary, communal propensity, self-esteem and marital status were controlled.

This study performed 5000 bootstrappings at the significant level of 0.05 to verify the mediating effect of perceived fairness and perceived threat to freedom. The total effect of the perceived meal pace on overall satisfaction was  $-0.326$  ( $t = -2.061$ ,  $p = 0.041$ ,  $CI = -0.637$  to  $-0.014$ ), and its direct effect was

-0.163 ( $t = -1.617$ ,  $p = 0.108$ ,  $CI = -0.361$  to  $-0.036$ ). The indirect effect through perceived threat to freedom was 0.145 ( $CI = 0.044$  to  $0.272$ ), and through perceived fairness was -0.308 ( $CI = -0.545$  to  $-0.093$ ). Since the bootstrapped confidence intervals suggested that the effect of perceived fairness and perceived threat to freedom were statistically different from zero, the mediating effect of perceived fairness and perceived threat to freedom was confirmed. In addition, the direct effect of meal pace was not significant after inserting perceived fairness and threat to freedom, which confirmed the full mediation of perceived fairness and threat to freedom. Thus, H2 is supported (Table 6).

<Table 6> Results of mediating effect test

	Effect	BootLLCI	BootULCI
Indirect effect of perceived fairness	-0.308	-0.545	-0.093
Indirect effect of threat to freedom	0.145	0.044	0.272
Direct effect of meal pace >> overall satisfaction	-0.163	-0.361	0.036
Total effect of meal pace >> overall satisfaction	-0.326	-0.637	-0.014

#### 4.3.3 Meal Pace and Perceived Fairness and Threat to Freedom

To test H3, we conducted MANCOVA on both perceived fairness and threat to freedom. Solo diners perceived meal pace was used as an independent variable and perceived fairness and threat to freedom were used as response variables, with the desire for social contact, desire for solitary, communal propensity, self-esteem, and marital status as covariates.

The results showed that perceived fairness ( $F = 27.864$ ,  $p < 0.001$ ) and threat to freedom ( $F = 41.495$ ,  $p < 0.001$ ) were significantly dependent on the perceived meal pace of solo diners. As expected, compared with neutral pace, solo diners perceived a higher threat to freedom when they perceived a fast meal pace compared to a slow meal pace ( $M_{fast} = 4.298$  vs.  $M_{neutral} = 1.688$  vs.  $M_{slow} = 2.874$ ), and the perceived threat to freedom was the highest when meal pace was fast. Compared with neutral pace, it also showed a lower perceived fairness when perceived slow meal pace and fast meal pace, ( $M_{fast} = 4.464$  vs.  $M_{neutral} = 5.696$  vs.  $M_{slow} = 3.659$ ), and the perceived fairness was the lowest when the meal pace was slow. Therefore, H3 was supported. The control effect of desire for social contact was significant for the influence of

meal pace on threat to freedom ( $p < 0.01$ ). The control effect for self-esteem ( $p < 0.05$ ) was significant for the influence of meal pace on perceived fairness (Tables 4, 5, and 7, and Figure 2.)

<Table 7> Results of MANCOVA

Effect		Value	F	Hypothesis df	Error df	Partial Squared	Eta
1) Results of MANCOVA on perceived fairness and threat to freedom							
Perceived meal pace	Pillai's Trace	0.555	36.257*	4	378		
	W i l k s ' s		**			0.277	
	Lambda	0.520	36.390*	4	376	0.279	
	Hotelling's		**				
	Trace	0.781	36.520*	4	374	0.281	
Largest Root	R o y ' s	0.489	46.179*	2	189	0.328	
			**				
2) Results of MANCOVA of interaction effect of perceived meal pace and communication style							
Meal pace * communication style	Pillai's Trace	0.070	3.396*	4	372		
	W i l k s ' s					0.035	
	Lambda	0.930	3.440**	4	370	0.036	
	Hotelling's						
Trace	0.076	3.484**	4	368	0.036		

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

#### 4.3.4 The Moderating Effect of Communication Accommodation Style

To test H4, a MANCOVA was conducted where meal pace, communication accommodation style and the interaction effect of them were used as independent variables. Perceived fairness and threat to freedom were used as response variables. Desire for social contact, desire for solitary, communal propensity, self-esteem, and marital status were used as covariates.

The results showed that the interaction effect of perceived meal pace and communication style was significant ( $p < 0.05$ ). However, it was only significant for perceived threat to freedom ( $p < 0.001$ ) and not significant for perceived fairness. Thus, H4a was not supported. When solo diners perceived a fast meal pace, service employee's convergence communication style leads to a lower perceived threat to freedom ( $M_{convergence} = 3.262$  vs.  $M_{maintenance} = 5.352$ ,  $p < 0.001$ ). Thus, H4b was supported. The control effect of desire for social contact was significant for perceived threat to freedom ( $p < 0.01$ ; Tables 4, 5,

and 7, and Figure 2.)

## V. Conclusion and Implications

### 5.1 Conclusion

This study focuses on a solo diner's unique needs—fairness and freedom—and identifies and examines the mechanism between these two needs, meal pace, a solo diner's dining experience, and a server's communication style. Specifically, this study examines: (1) the effect of meal pace (fast vs. slow) on solo dining experience; (2) the mediating effect of perceived fairness and threat to freedom for the relationship between meal pace and solo dining experience, and; (3) the moderating effect of service employees' communication accommodation style in decreasing the negative impact of meal pace on solo diner immediate reactions (perceived fairness and threat to freedom). The results confirmed the hypothesized effects stated previously, except for the moderating effect of a server's communication style on the relationship between meal pace and a solo diner's attitude toward perceived fairness.

The study results indicate that, like other diners, solo diners also react sensitively to fast or slow meal pace, but solo diners will assess the dining experience more negatively when the meal pace is slow, implying that they have a higher degree of sensitiveness to slow meal pace. Generally, restaurant customers' satisfaction level is diminished with both slow and fast meal pace, showing the inverted U-shaped pattern between meal pace and customer satisfaction (Noone et al., 2007, 2009). However, diminished customer satisfaction with a fast meal pace has been more highlighted in general customer cases, because restaurants prefer fast meal pace to increase their table/seat turnover so as to increase their revenue (Noone et al., 2007). Whereas a slow meal pace and its negative effect on customer satisfaction is further emphasized in a solo dining experience setting such as in this study. Therefore, for a solo diner case, a slow meal pace should be controlled for more carefully.

In addition, the results show that the negative effect of a slow or fast meal pace on the solo dining experience was mediated by perceived unfairness and

threat to freedom. When the meal pace is either faster or slower than expected, solo diners perceive it to be unfair and threatening to their freedom. Fast meal pace triggers a stronger sense of a threat to freedom than slow pace, whereas slow pace triggers stronger perceptions of unfairness than for fast pace.

Another insightful finding from the study results is that there is a significant moderating effect of the service providers' communication accommodation style on the relationship between meal pace and threat to freedom. A solo diners' sense of a threat to freedom due to fast meal pace can be reduced when service employees use a convergence communication style. However, its moderating effect on the relationship between meal pace and perceived fairness is not significant, implying that even if a service employee uses the convergence communication style to mitigate the negative effect of an undesirable meal pace, the negative effect of meal pace on perceived fairness is still hard to be reduced.

When a solo diner's perception of fairness is low due to an undesirable (fast or slow) meal pace, the degree of the solo diner's perceived unfairness cannot be changed by either a convergence or a maintenance communication accommodation style of service. Some possible reasons help to explain this result. First, to customers, the communication style might not be perceived as an extra effort of service employees. Since empathy is also one of dimensions of service quality (Parasuraman et al., 1985), some diners might perceive the particular communication accommodation as the general rule for service employees, which is required in the work place. Thus, solo diners do not give extra points for the convergence style since the solo diners' evaluation of interactional justice might not be changed. Second, the low perception of fairness could result from social comparisons with others. If solo diners observe that servers also use a convergence style to other diners but treat them with a proper pace, the solo diners might not change their evaluation of distributive justice and not give extra points to the servers. Finally, some solo consumers participate in solo consumption to avoid social contact and have low sociotropism (Leary et al., 2003). For some solo diners, they may not like receiving social attention. Thus, a convergence style of a server might not improve their evaluation of the interactional treatment.

The study results have shown that meal pace has an influence on solo dining experience and could further influence revisit intentions and positive WOM in-

tention of solo diners.

## 5.2 Theoretical and Managerial Implications

Given the increased attention on solo diners and their unique needs and behavioral patterns at a restaurant, research topics on solo diners have increased but are still limited. Thus, this study contributes to the literature on solo dining consumption, especially related to the psychological factors/reactions (i.e., perceived fairness, perceived threat to freedom, dining experience, WOM, revisit intention in this study), meal pace, and contextual factors (i.e., a communication style in this study).

The results of this study offer several useful managerial insights which can be applied to the restaurant industry and other service sectors. First, practitioners can gain a better understanding of the importance of managing service encounter pace (meal pace) for solo consumers (diners), and its specific mechanism and effects of the linkage to cater for the unique needs of solo consumers (diners). Fast pace should be more carefully treated in a general consumption (dining) context due to the negative impacts on customer satisfaction (Noone et al., 2007, 2009). Slow service encounter (meal) pace should be prevented because of the serious negative outcomes for a solo consumer. In this study, respondent's expected dinner duration at a casual dining restaurant was 53 minutes. The expected pace might be faster than that of non-solo diners. Thus, restaurants could design several desirable meal paces as a part of the service delivery process (Noone et al., 2009) for a different size of group (e.g., solos vs. non-solos) to better accommodate a different sized group to better cater for their needs.

In addition, this study offers insights about how practitioners could overcome the negative reactions from unsatisfied customers. The study results indicates that one solution is to recover the service failure caused by an undesirable meal pace by the use of an appropriate communication style by a service employee. At a service encounter, generally a service employee's interaction style is important when dealing with negative reactions from a customer, and this could create a magic memory or a miserable one for the customer. A service provider's communication style is one of key components to determine the quality of

interaction (Sparks and Callan, 1992). A convergence communication style is suggested to decrease the negative effect of a fast meal pace on the threat to freedom. Managers should educate and train service employees to use an accommodating convergence communication style when serving customers (solo diners) faster than their expectation, including the demonstration of their empathy and involvement in communicating information, the adoption of an informal speech style, and the use of customers' (solo diners') names.

### 5.3 Limitations and Future Study

This study has several limitations. First, the study context was established at a casual dining restaurant. The sensitiveness or reactions to meal pace would be different at a different service level such as an upscale dining restaurant (Noone et al., 2007), that could be a topic for future studies.

Second, this study examined two unique needs of solo diners—perceived fairness and perceived threat to freedom. Future studies could identify and examine other diverse needs of solo diners.

Third, this study conducted a scenario-based survey using the participation of U.S. customers. Future studies could be extended in different cultural contexts to examine variables and mechanisms, as previous studies suggest that different cultures vary in regard to their affect on a diner's affection and judgment.

Lastly, the dinner course price at a casual restaurant was set as US\$ 15 in this study, but the prices in future studies should reflect the customer price index in different countries (see that the average dinner price of family style and casual restaurant is \$15 – \$25 in 2022 in the U.S.; Restohub, 2022).

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