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encounters with the police**

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## **Moderating Role of Stress in Evaluating Negative Services: Encounters with the Police**

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## **Moderating Role of Stress in Evaluating Negative Services: Encounters with the Police**

### **Abstract**

Since negative services are usually sought during emergencies or when problems arise or to ensure against unwanted outcomes, they are typically accompanied by high levels of stress. Our study investigates the role of stress in evaluating such services. We examine citizen satisfaction with a specific negative service, police services, and the moderating role of stress in the evaluation of these services. Findings from our study confirm the moderating role of stress in satisfaction with police services, which determines the differential importance of service attributes: helping consumers manage the stress is more important for satisfaction when consumers are stressed while courtesy and speediness of service delivery are more important when consumers are not stressed. This can be the basis for training police officers to better understand the state the consumer is in and reinforce specific service features accordingly. The study adds to extant knowledge in three areas: (i) public/police services: satisfaction with a public service is valuable in evaluating government and agency performance (ii) negative services: they are an integral part of many service providers, yet understudied (iii) unpleasant affective state: people assign greater weight to unpleasant situations when making satisfaction judgments.

**Keywords:** police services, negative services, stress, pre-existing affect, satisfaction

## **Moderating Role of Stress in Evaluating Negative Services: Encounters with the Police**

### **Introduction: Negative Services**

Services are broadly classified into three categories: neutral (also referred to as routine by some), positive, and negative (Morgan and Rao 2006). Negative services are services that are needed in emergencies (e.g. towing a car after a break down), when problems arise (e.g. filing an insurance claim) or to avoid unwanted outcomes (e.g. dental cleaning). However, a negative service may become neutral (or routine) when the aversive situation is under control or the consumer learns to manage it better (Miller et al. 2009). For example, dental cleaning for the first time may be a relatively more stressful situation but may become less stressful as the consumer gains experience at handling it. In addition, different services under the umbrella of the same negative service may be classified as routine or neutral when compared with other services within the umbrella, e.g., dental cleaning may be perceived as more routine than a root canal.

Negative services present unique challenges to service providers because consumers' reactions to and expectations about them differ from more positive or neutral service encounters (Miller et al. 2009; Morgan and Rao 2006). Such services require consumers to deal with unwanted situations so are typically accompanied by stress (Miller et al 2009). The stress is a result of the consumers' inexperience in dealing with the aversive situation or some potential risk associated with using the service. These feelings of anxiety and stress that the consumers bring to the service encounter may affect their evaluations (Brown and Kirmani 1999; Mattila and Wirtz 2000). However, few researchers have incorporated feelings in service evaluations and those that do either incorporate them as positive states (e.g. delight,

happiness, joy, surprise) or in positive contexts (e.g. hedonistic services like concerts, amusement parks, karaoke). When affective state has been studied in negative contexts, it has been mostly within the service recovery literature (Schoefer and Diamantopoulos 2008) where the negative feeling is typically caused by the service provider (Kalamas et al. 2008).

Feelings produced during the service consumption (Jiang and Wang 2006; Westbrook and Oliver 1991; Wirtz and Bateson 1999), used as affective state, also do not explicitly account for the pre-existing states that the consumer brings to the service context as mood or as an affect resulting from the specific circumstance the consumer is in. Because these pre-existing affective states color judgments, influence information processing, and affect resulting evaluations (Oliver 1997), they are necessary in understanding satisfaction.

Our study adds to the services marketing literature by examining a pre-existing affective state, stress, in a negative service. We choose police services for the purposes of our study and this setting is in itself a contribution. As public organizations become more market-oriented, theoretical frameworks and empirical analysis are required to track their performance (Cervera et al. 2001). The second contribution of the study is the negative service that police services represent. Negative services are part of most businesses (e.g. repair for automobiles and appliances, delays in flights or lost baggage for airlines) and central to many (e.g. insurance, healthcare, tax preparation), yet most of the literature currently focuses on non-negative services (Berry and Bendapudi 2007). The third contribution is studying an unpleasant affective state, stress (defined as perceived demands exceeding the perceived ability to cope with these demands). Services marketing studies both pleasant and unpleasant situations but studies on pleasant situations dominate even when there

is evidence that an unpleasant situation impacts satisfaction more strongly than a pleasant one (Liljander and Strandvik 1997) .

We propose that pre-consumption negative affect, stress, influences the type and number of attributes consumers use to evaluate a negative service encounter and also the relationship between satisfaction and post-consumption behavior. We start with the discussion of this role of stress in consumers' behavior to develop the hypothesized effects, which is followed by the description of the study and data analysis. A discussion of the findings and their implications for negative services in general and police services in particular concludes the paper.

### **Role of Stress in Consumers' Responses**

Stress disrupts consumers' equilibrium and when equilibrium is disrupted, there is a tendency to restore balance (Gierveld and Dykstra 1993) by intensifying cognitive activities that restore equilibrium (Moschis 2007). Stress, therefore, influences decision making by dictating the decision strategy (one that restores equilibrium) and the allocation of resources (cognitive activities) to that decision making. This biases judgments, impedes information processing, and motivates to change the stressed state (Gorn et al. 2001; Mano 1997; Paulhus and Lim 1994; Raghunathan and Pham 1999; Raju and Unnava 2006). We hypothesize the effects of biased judgment, impeded information processing, and motivated repair on consumers' responses to negative services.

### *Effect of Biased Judgments on Satisfaction*

Stress biases judgments through three different mechanisms (Gorn et al. 2001; Pham 2004). One way is by mere association. Stress transfers the meaning of the feelings to the target and the target evaluated according to the valence of the feeling. Because stress is a negative feeling, a target is evaluated negatively under stress. The second way stress biases judgments is by cuing similarly valenced materials in memory. This distorts perceptions, thoughts, and judgments in the direction of its valence and alters perceptions of the target to match the affective state the individual is in. Since stress is negatively valenced, it triggers negative thoughts in memory and skews evaluations towards negativity. A third way stress biases judgment is by misattribution. People fail to recognize that the source of the affective state is not the target being evaluated, misattributing the affective state they are in as an actual information about the target: (un)pleasant feelings are perceived as (dis)like, (dis)satisfaction, etc. for the target. The unpleasant feelings sensed in a stressed state would therefore, be perceived as dislike and dissatisfaction with the target and consequently negative evaluation of the target. Whatever the explanation for biased judgments, stress biases perceptions of performance negatively.

The effects of stress on evaluations are compounded in the case of negative services. Consumers are usually inexperienced with negative services, which creates uncertainty about what to expect from the service encounter. These feelings of uncertainty give unclear expectations from the service provided (Brown and Kirmani 1999). Since satisfaction is a result of perceived performance (lower because of biased judgments) meeting expectations (unclear because of inexperience), and stress lowers perceptions of performance because of

biased judgments and makes expectations unclear, we expect satisfaction with negative services to be lower under stress.

In addition, consuming negative services is often accompanied by a certain amount of risk because of negative services being invasive (e.g. dental services) (Brown and Kirmani 1999) or uncertainty about their outcomes (e.g. filing insurance claims) (Miller et al. 2009). This risk interferes with effective decision making (Moschis 2007). Thus, consumers are likely to make suboptimal choices when stressed, which is likely to lead to greater dissatisfaction (or lower satisfaction). Thus, we hypothesize the following effect:

**Hypothesis 1: In a negative service, satisfaction under a stressed state is lower than that in a neutral state.**

#### *Effect of Impeded Information Processing on Relevancy of Service Attributes*

Stress impedes information processing because of selective processing of cues and reduced attentional capacity. Because stress primes specific goals, stressed people prioritize goals that they think are relevant to the situation they are in and appraise information accordingly (Raghunathan and Pham 1999). The information is processed only if the individual considers it pertinent to the goal that is primed or prioritized. Thus, stressed decision makers consider only a narrow range of information. More recent interpretation suggests that stress asks for an increased vigilance coping pattern where individuals actively search for only relevant information regarding the problem and focus on the most relevant and diagnostic information (Pham 2004). Because stressed individuals do not elaborate

information and cues as extensively but limit attention to only the cues that are most critical to the task at hand, they consider fewer attributes for evaluating the service encounter (Mano 1992; Mano 1994).

In addition, an individual in an aroused state like stress focuses attention on the most prominent attributes, taking attention away from the less important ones (Easterbrook 1959). This happens because the high arousal state's demands allocate resources to primary tasks as an active strategy to deal with stress, leaving less capacity to perform secondary tasks (Sanbonmatsu and Kardes 1988). Thus, stress also reduces attentional and processing capacity available for performing cognitive tasks.

The conclusion that stressed individuals not only process less information for evaluations but also do not give their full attention to processing this information is supported by findings from the consumer behavior literature that shows that all attributes of a consumption might not necessarily be important in evaluations, all of the time and in fact, depends on the situation. Situation shifts the utility consequences of alternative choices between shopping contexts, which varies the number of attributes triggered and also the relative importance of these attributes (Anderson et al. 2008; Mattson 1982; Mittal et al. 1999). Similarly, stress shifts the utility consequences of the service encounter in favor of the service attributes that help relieve the stress: service attributes that help relieve the stress provide more utility than the ones that do not. Thus, service attributes are differentially relevant under stress. Combined with the fact that only diagnostic information is processed under stress, we can then expect only attributes relevant for reducing/removing the stress to be considered for evaluating the service encounter. Such a shift in the utility function does not

take place in a neutral state and therefore individuals in a neutral state do not limit their information processing.

This effect of stress is amplified in a negative service. Because consumers have little to no experience with negative services, their knowledge of and expectations from the service are fuzzy (Brown and Kirmani 1999; Morgan and Rao 2006) and consequently the ability to evaluate service attributes limited. The stressed individual, desiring relief from the stressful condition, uses over-simplified decision rules (Janis 1982) to selectively process only attributes that are suitable for reducing the stress. Thus, we propose:

**Hypothesis 2: Compared to individuals in a neutral state, individuals in a stressed state use fewer attributes to evaluate a negative service encounter**

Since satisfaction from negative services may be increased by finding ways to help customers cope with the anxiety generated (Miller et al. 2008), that is, reduce the stress or anxiety associated with negative services, we need to identify attributes that may be relevant in reducing stress. Which of these attributes are going to be relevant in each condition may be derived from two separate studies that examine service delivery characteristics that help reduce stress in negative services (Miller et al. 2008; Miller et al. 2009). One of these studies (Miller et al. 2009) shows that consumers' belief of a medical test's ability to detect disease with certainty helps reduce the stress in stressful medical testing situations (but not in routine ones). That is, the *helpfulness* of the test in the particular situation is relevant in the consumers' evaluations in stressed state. The other study (Miller et al. 2008) establishes that a

longer wait time reduces stress in stressful situations but increases stress in neutral situations. In a neutral situation, the most salient stressor is the waiting time itself as it increases uncertainty about time or gives a sense of waste (Miller et al 2008). Thus, the *speed* with which the service is delivered is relevant for consumers in a neutral state but not for those in the stressed state. Based on this, we propose:

**Hypothesis 2A: Helpfulness of service is relevant for evaluating a negative service encounter in a stressed state**

**Hypothesis 2B: Speed with which the service is delivered is relevant for evaluating a negative service encounter in a neutral state**

#### *Effect of Motivated Repair on Outcomes of Satisfaction*

Consequences of satisfaction are traditionally based on the ‘exit, voice, and loyalty’ theory (Hirschman 1970). A dissatisfied consumer can change provider (exit), complain or praise (voice) or remain with the provider (loyalty). Since negative services are services that people need, the exit and loyalty options are less suitable consequences of satisfaction, which leaves voice in the form of word-of-mouth (WOM) as the most likely response to negative service encounters.

There is a large body of research in services marketing that has examined the relationship between satisfaction and ensuing behavior like WOM, however, the evidence is conflicting. While a positive relationship between satisfaction and WOM activity has been

firmly established (Athanasopoulos et al. 2001; Babin et al. 2005; Bitner 1990; Ranaweera and Prabhu 2003), there is also empirical evidence of dissatisfied consumers participating more in WOM activities than satisfied ones do (Holmes and Lett 1977; Swan and Oliver 1989; Zeelenberg and Pieters 2004). An explanation may be provided by emotions (affective state) in the usual cognitive measures of satisfaction (Stauss and Neuhaus 1997). Satisfaction by itself is unable to adequately differentiate between the various post-consumption behaviors and incorporating affective state improves predictability (Nyer 1997). Because different affective states, especially negative ones like stress, call for very different coping strategies, they may be associated with different patterns of post-consumption behavior. For example, stress motivates individuals to 'repair' the state they are in: they seek explanations for the stress (repair it) and may realize that the target had little responsibility for their stress. Individuals in a neutral state do not indulge in any such retrospection. This difference in motives to correct the bias in their evaluations of the target (Gorn et al. 1993) results in an asymmetric impact of satisfaction on post-consumption behavior: even though the initial evaluation of the service encounter might not be as positive as that of those in the neutral state, the impact on post-consumption behavior is stronger under stress.

Since the setting of our study is police services, a public service, we need to also include trust as one of the post-consumption behavior because trust in public institutions is a key consequence of satisfaction which indicates good governance and achievement of a democratic mission (Bouckaert and Walle 2003; Heintzman and Marson 2005). Stressed consumers are in a negative valence and want to return to hedonic neutrality, seeking to obtain relief by means of the service (Oliver 1997). If the service encounter achieves this

main goal, the consumer will feel restored and thankful toward the providers, thus reinforcing or improving the attitude towards them. Therefore, we expect:

**Hypothesis 3A: In a negative service, the impact of satisfaction on resulting word-of-mouth is stronger for the stressed state than for the neutral state.**

**Hypothesis 3B: In a negative service, the impact of satisfaction on resulting trust is stronger for the stressed state than for the neutral state.**

### **Data Collection**

A professional marketing research firm collected the data in telephone interviews which lasted approximately eight minutes. One thousand and six hundred (1600) random phone calls were made out of which 800 people agreed to participate in the study, resulting in a 50 percent response rate. The final analysis retained only respondents who had recent contact with the police (the average passage of time since the last contact was approximately 6 months). The type of contacts with the police ranged from routine services like applying for or renewing a passport to receiving help in case of theft, burglary, and accident, etc. This resulted in a final sample size of 141. Table 1 shows the descriptive statistics for the data by type of service, number of contacts with the police and age range, classified by the two conditions.

Table 1 here.

## Measures

Table 2 lists the items comprising the measures and Figure 1 summarizes the relationships between the measures.

Table 2 and Figure 1 here.

Negative service providers tend to focus on service delivery outcomes (e.g. completion of the root canal) however, it has been argued that service recipients evaluate the service based on how smoothly the service was delivered (e.g. how painful the root canal process was) (Morgan and Rao 2006). Even though police services have been evaluated based on politeness of the personnel and their understanding of the problem, we use attributes that evaluate how smoothly the service was delivered: courtesy, helpfulness, concern, and speed which have been used in previous studies (Furstenberg and Wellford 1973; Reising and Parks 2000; Tewksbury and West 2001). We append the general questions developed by Tewksbury and West (2001) for satisfaction with the most recent service encounter, with more items to capture each attribute better. Six items measure courtesy, whereas three items each measure helpfulness, concern, and speed. Respondents indicated how strongly they disagreed or agreed with the given statement on a Likert scale ranging from one to ten. These four specific attributes are useful for our study since they cover two of the attributes to test H2A (helpfulness), H2B (speed), and the other two (courtesy and concern) allow for testing the number of attributes relevant in each condition (H2).

The conventional single-item question measures transaction-specific satisfaction with the service on a scale of one to ten. Similar to the scale used in previous research (Brown and

Kirmani 1999), we use an item that relates to the overall evaluation of the last encounter with the police.

A conventional one item measures word-of-mouth (Oliver 1997) while six items adapted from an existing scale (Morgan and Hunt 1994) measure trust.

We employ a subjective measure of stress because subjective definitions of stress are more useful and subject to less criticism (Elder et al. 1996; Kelly and Swindell 2003). Similar measures have been used in prior studies (Miller et al. 2009). Respondents indicated, on a scale of one (not stressful at all) to ten (very stressful), the level of stress felt in the situation they contacted the police, which captured the subjects' perception of the situation. This continuous variable did not follow a normal distribution, which would have jeopardized the analysis. However, we noticed that the respondents who indicated that they felt at least some stress (response of 2 to 10 on the question) were equally distributed among the responses. Therefore, based on the natural behavior of the variable, we classified the subjects into two groups of neutral state (90 respondents, no stress at all) and stressed state (51 respondents, some degree of stress).

### **Missing Data for Multiple-item Scales**

Initial analysis of the data set revealed some missing values for certain items so the data was examined to first determine the reasons underlying these missing values and then to decide how to deal with the missing values. The missing data processes were unknown so any patterns that could characterize the missing data process were examined. The two primary issues of concern were (i) if the missing data were scattered randomly throughout the

observations or there were distinct patterns identifiable (ii) how prevalent were the missing data.

The missing data (15 out of 3624 values, less than 1 % the total values) for multiple-item scales were scattered randomly where some items related to the scale were not answered while other items were. The various items used to measure a latent variable are a set of reflective measures of the same construct so all items within one latent variable should be highly correlated. The missing value was therefore imputed with the mean of other items in the latent variable for each individual (Hair et al. 1998). If responses to a single-item question (satisfaction or WOM) were missing, the complete observation was deleted from the analysis.

### **Construct Reliability and Validity**

Tables 2 and 3 present the consistency and reliability analysis run on the measures after replacing the missing values. The Cronbach alphas for the scales (in parenthesis in table 2) are above the recommended .70 for the sample as a whole and when divided into the neutral and the stressed subgroups, indicating construct reliability. Discriminant validity is tested by comparing the average variance extracted (AVE) of each construct with the shared variance between constructs (see matrices and diagonal under the heading 'Intercorrelations' in table 3). The AVE's squared root for each construct exceeds its shared variance with other constructs and the high values of the AVE confirm that average communality of the measures in the model are above or close to the recommended threshold of .70, which provides discriminant validity.

Table 3 here.

## Hypotheses Testing

Analysis of variance (ANOVA) verifies that stress moderates satisfaction, with satisfaction as the dependent variable and the two different conditions (stressed and neutral) as the independent factors. The level of satisfaction is significantly different for the stressed and neutral state with an F value of 9.16 ( $p < .05$ ). The mean for satisfaction in the stressed state is 7.2 whereas in the neutral state it is 8.4 (Table 4). This supports hypothesis 1.

Table 4 here.

The second hypothesis proposes that fewer service attributes determine satisfaction in a stressed state than in a neutral state. A multiple regression analysis evaluates the relative importance of the attributes in determining satisfaction in each condition, and the Chow test confirms the differences between them.

Table 5 summarizes the results for the multiple regression analysis (we checked for multicollinearity and the variance inflation factor was lower than 4 in all cases, which indicates no significant problem). The Chow statistic of 2.55 is above the critical value of 2.28 (F [5, 131],  $p < .05$ ), thus we reject the equivalence hypothesis for the regression: the model estimation is different for the stressed and the neutral state. Three out of the four attributes are significant in the pooled regression. However, the following differences emerge in the regression analysis for the two subsamples separately: (i) just one service attribute significantly explains satisfaction in the stressed state whereas two service attributes explain satisfaction in the neutral state, thus supporting hypothesis 2, (ii) the only significant attribute in the stressed state is helpfulness, which supports hypothesis 2A, and (iii) in the neutral state the significant attribute is speed (and courtesy in addition), which supports hypothesis 2B.

Table 5 here.

A similar process as the one used for testing hypotheses 2 tests hypotheses 3A and 3B (Table 6). We reject the equivalence hypothesis for the relationship between satisfaction and word-of-mouth (Chow statistic of 4.06 above the critical value of 3.06,  $F [2, 137], p < .05$ ). Service satisfaction under the two different conditions produces different reactions in comments to third persons and this reaction is stronger for stressed individuals. The hypothesis of equivalence could not be rejected for the impact of satisfaction on trust (Chow statistic of 1.36 below the critical value of 3.06,  $F [2, 137], p < .05$ ) so we assume there is no difference in satisfaction's influence on trust between the stressed and the neutral state, although the effect is significant in both conditions. Thus, the results support hypothesis 3A but do not support hypothesis 3B.

Table 6 here.

## **Discussion of Results**

Findings from the study show that pre-existing stress moderates consumers' evaluation of negative services. Not only is the level of satisfaction different under the two conditions (stress and neutral), but so is the relative importance of attributes that contribute to satisfaction and satisfaction's effects on post-consumption behavior (WOM).

We find satisfaction in the stressed state is lower than that in the neutral one. This is because stress biases evaluations in the direction of the valence: stimuli are evaluated more positively in a positive (non-negative or neutral) affective state than in an aversive affective

state (Bagozzi et al. 1999). This compounded with inexperience with negative services creates uncertainty about expectations from the service (Brown and Kirmani 1999) and results in a lower satisfaction level.

Service attributes that contribute to service satisfaction are not only different for the two conditions but more attributes determine satisfaction in the neutral state. Both *higher* pleasantness and *lower* arousal states result in a greater degree of stimuli elaboration (Mano 1997). Since the neutral state corresponds to both relatively higher pleasantness and lower arousal (as compared to the stressed state), respondents in this state should elaborate the information more and therefore, use more service attributes to evaluate the service experience. Results from our study do confirm this with two service attributes (courtesy and speed) relevant for satisfaction in the neutral state and only one (helpfulness) in the stressed state. Stress triggers off a vigilant coping pattern where the individual searches for the most relevant and pertinent information regarding the problem (Pham 2004). Thus helpfulness, which is the most relevant attribute for the particular negative service we investigate, is the only attribute determining satisfaction for people under stress. This finding is in line with prior research (Miller et al. 2008) that suggests helping customers cope with stress related with negative services is more relevant for satisfaction than the outcomes of the service itself. In addition, delivery speed of a negative service is important in reducing stress when in a neutral state (Miller et al. 2009) and our study confirms this. We also found that courtesy in a negative service is important for customers in a neutral state. These two attributes become prominent as stressors when customers are in a neutral state and therefore have an impact on satisfaction.

Even though the level of satisfaction in the stressed state is lower than in neutral one, the post-consumption reactions in terms of WOM referral are stronger. However, we find no

significant effects on trust, although trust is a significant outcome of satisfaction for both the conditions. The difference in the two effects may be explained by the fact that WOM is transaction based, dependent on the most recent encounter, while trust is a general attitude, based on several encounters where each subsequent encounter updates the pre-existing trust. Even one favorable (or unfavorable) encounter gets the consumer talking about it while just one (the last) encounter might not be sufficient in making a noticeable change in trust.

### **Contributions and Implications**

Although Oliver (1989) does not explicitly account for affective states in the evaluation of the service encounter, his satisfaction paradigm distinguishes between six types of satisfaction responses that depend on the psychological processing the consumer goes through in evaluating the service (Oliver 1989). Two of these types of satisfaction relate with the neutrality and arousal of an aversive affective state. The two types of satisfaction are satisfaction-as-contentment (resulting under neutral state) and satisfaction-as-relief (resulting under aversive affective state). Even though most research in satisfaction is based on Oliver's work (1989, 1997), the operationalization of satisfaction in the services literature does not address the situational and affective component of the satisfaction paradigm proposed by him. Our study is a small step towards providing evidence for two types of satisfaction that Oliver describes by incorporating affect in evaluating negative services. We use the stress literature to exemplify this but there are also other aversive affective states like fear, anger, etc. that could be used.

Beyond the general contribution that the study makes to the conceptualization of satisfaction, it adds to the services marketing literature in the following three specific areas: investigating police services, investigating a negative service, and investigating the aversive affective state stress. We discuss the implications of each in the following sections.

*The setting of the study: Police services*

Police services are a public service that, like many other public services (e.g. health care, education), are under pressure for greater efficiency and better performance. Nowadays, satisfaction with public services receives special attention because of pressure from citizens and interest groups, privatization trends, and introduction of new mechanisms that enhance organizational efficiency, quality, and productivity (Kelly and Swindell 2003). There is an agreement in the public services literature that assessing satisfaction with public services is a valuable source of information that can help evaluate government/agency performance and guide deployment of strained resources (Kelly 2005; Loudon and Della 1993). However, since most studies of satisfaction with police services come from the public administration literature, few examine how police services are evaluated by the consumers vis-à-vis the attributes of the service. Our study adds to this literature by offering insights from not only the services literature but also from the consumer behavior literature, which taken together provide a better understanding of consumer responses to police services.

The setting of the study also contributes to services marketing literature by examining a public service. Public services are an under-researched area in services marketing literature that need special attention because of their complexity and governance by specific laws:

public services are constitutionally provided where there are multiple stakeholders and the customers are not so easily defined. There are few studies in services marketing that investigate public services (Dubé and Menon 1998; Liljander and Strandvik 1997) despite public services increasingly expected to behave like private sector services when it comes to providing quality services. An understanding of the unique nature of the public service domain is, therefore, necessary to develop and advance the field of services marketing.

Satisfaction with police services' studies are typically based on surveys of general citizen satisfaction where the police represent one service of many (Maguire and Johnson 2010). Studies that are slightly more detailed offer only descriptive information about service attributes. Thus, examining police services through the literature in services marketing and consumer behavior adds to the current understanding of satisfaction with police services. This understanding helps develop more appropriate measures for handling customers in different situations. Our findings offer guidelines for service attributes relevant in two different situations: (i) when the encounter is stress-free, the demeanor characteristic of courtesy and delivery speed are important in service evaluation, but (ii) when the individual is under stress, the most important service attribute is helpfulness. Police officers could be trained to better understand the state in which the consumer is to provide the service accordingly, reinforcing specific service features under different situations. Responding appropriately to consumer emotions in aversive situations is important for improving consumer satisfaction and building long-lasting relationships (Menon and Dube 2007).

### *Negative services*

Consumers experience fear, anxiety or stress in anticipation of consuming negative services because of which they are ill-equipped to evaluate negative services (Berry and Bendapudi 2007; Brown and Kirmani 1999; Morgan and Rao 2006) and these feelings are salient to consumers when evaluating negative services (Miller et al. 2009). However, there are only a handful of studies specifically addressing this unique nature of negative services (e.g. Brown & Kirmani 1999; Miller et al 2008; Miller et al 2009) and fewer still that even tangentially touch on negative services (e.g. Berry & Bendapudi 2007). Our study contributes to the understudied area of negative services in services marketing literature by identifying concepts specific to negative services.

Since consumers are more likely to evaluate negative services based on feelings and emotions experienced during the service rather than outcomes of the service (Miller et al. 2009), marketers can increase customer satisfaction by finding mechanisms that help consumers cope with the anxiety and stress generated before or during consuming a negative service (Miller et al. 2008). Our study contributes by identifying one such mechanism, helpfulness, which is useful in helping consumers cope with stress.

### *Unpleasant affective state: Stress*

There is a concern in services literature about oversimplifying the attributes-satisfaction-outcomes chain by assuming all service attributes to contribute equally to satisfaction and ensuing outcomes (Anderson and Mittal 2000; Kumar 2002). Satisfaction is a complex phenomenon, not easily modeled by service attributes alone because it is context

dependent (Fournier and Mick 1999) and thus requires the inclusion of situational variables. The significant negative asymmetric effects of our study along the service attributes-satisfaction-outcomes chain show satisfaction to vary with the situational variable stress to contribute to a better explanation of satisfaction.

The study also explains some of the discrepancy in findings in the services literature by accounting for pre-existing emotions. Services literature employs affective states usually as consumption emotions --those elicited during the service encounter, not as the pre-existing affective states the consumer brings to the encounter. In some instances, arousal of the pleasant state has given more favorable results (Ladhari 2007) and in others the arousal of an unpleasant one (Mattila and Wirtz 2000). The discrepancy can possibly be explained by not accounting for pre-existing emotions and also for not clearly establishing the role of emotions in general in the service encounter.

The study highlights significant differences across customer segments in the links of the satisfaction chain, which can be a new typology for segmentation that accounts for pre-existing emotions. Consumers' anticipated emotional states (negative versus neutral) have been shown to determine the effectiveness of wait management strategies (Miller et al. 2008), thus emotional states can be the bases to segment consumers in aroused affective states and emotion management tools developed for increasing service satisfaction. Firms expecting stronger positive behavioral intentions from their customers (e.g. loyalty, word-of-mouth, repurchase) must also take into account the specific condition (e.g. stress) in which the customer is in since good service in an unpleasant affective state will have a strong, positive, and beneficial impact on post-consumption behavioral intentions (as demonstrated by the results of our study).

## Future Research

Despite the contributions of the study discussed here, our study is not without its shortcomings. These shortcomings either relate to how the variables in the study were measured or variables that were not accounted for in the study but could possibly affect our results.

Physical environment has been shown to impact satisfaction with services (Bitner 1990) and studies in consumer behavior show atmospheric cues generate affect in consumers that eventually impacts behavior (Donovan and Rossiter 1982). Thus physical environment could be relevant for negative services in managing stress and the evaluation of negative services. Future research should examine the role of physical environment in influencing pre-existing emotions and consequently satisfaction.

Research gives little attention to the *same* valence of *different* yet related emotions. Different types of negative affects, like sadness and anxiety, have different impact on evaluations (Raghunathan and Pham 1999). Future research should focus on operationalizing affective state to include the same valence of related emotions to improve the understanding of the role of emotions in the service encounter.

Stress may stem from other sources than the anticipation of consuming negative services, for example, stress from work or because of being short of time. Though we believe that consumers might be unable to differentiate between consumption-related and consumption-unrelated stress, we consider comparing the different conditions a fruitful exercise for researchers as the coping strategies used in the two conditions should be expected to be different.

Stress needs to be captured in a way that pre-consumption, during-consumption and post-consumption stress may be differentiated from one another. This would be possible in an experimental study rather than a survey that was used for our study. Incorporating during-consumption and post-consumption stress in the analysis in combination with pre-consumption stress should add to the explanation of the impact of satisfaction on post-consumption behavior like WOM and trust.

## **Conclusion**

The goal of this research was to establish the moderating role of stress in a negative service encounter to show that the relevance of different service attributes in determining satisfaction depends on stress (or lack of it). This was done in the police services setting. Our results show that for negative services, helping consumers manage the stress is more relevant for satisfaction when they are stressed whereas courtesy and speediness of service delivery more relevant when they are in a neutral state. We also find that even though stressed consumers are less satisfied with the service than neutral customers are, the impact of satisfaction on ensuing WOM is stronger.

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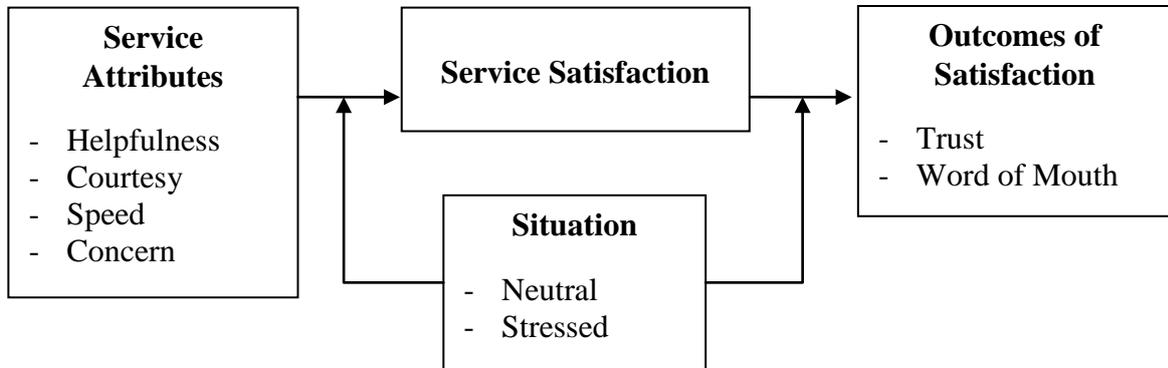
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**Figure 1: Conceptual Model**



**Table 1: Data Descriptives by Type of Service, Number of Contacts, and Age Group**

| <b>Type of encounter with the police</b> | <b>Neutral state</b> |            | <b>Stressed state</b> |            | <b>Total</b> |
|--|----------------------|------------|-----------------------|------------|--------------|
|  | <i>n</i>             | <i>%</i>   | <i>n</i>              | <i>%</i>   |              |
| <b>HEADQUARTERS</b>                      |                      |            |                       |            |              |
| • provide a witness statement            |                      |            | 4                     | 8          | 4            |
| • report a case                          | 17                   | 19         | 18                    | 35         | 35           |
| • enquire after someone in custody       | 1                    | 1          |                       |            | 1            |
| • apply for a passport                   | 49                   | 54         | 8                     | 16         | 57           |
| • file a complaint                       | 2                    | 2          |                       |            | 2            |
| • other reason                           | 16                   | 18         | 6                     | 12         | 22           |
| <b>ASSISTANCE</b>                        |                      |            |                       |            |              |
| • theft or burglary                      | 2                    | 2          | 2                     | 4          | 4            |
| • violence/unpleasant situation          |                      |            | 3                     | 6          | 3            |
| • an accident (car, fire, etc)           |                      |            | 4                     | 8          | 4            |
| • other type of assistance               | 3                    | 3          | 6                     | 12         | 9            |
| Total                                    | <b>90</b>            | <i>100</i> | <b>51</b>             | <i>100</i> | <b>141</b>   |
| <b>Times in contact with the police</b>  |                      |            |                       |            |              |
| 1-2 times                                | 27                   | 30         | 17                    | 33         | 44           |
| 3-4 times                                | 19                   | 21         | 21                    | 41         | 40           |
| 5-6 times                                | 20                   | 22         | 4                     | 8          | 24           |
| more than 6 times                        | 24                   | 27         | 9                     | 18         | 33           |
| Total                                    | <b>90</b>            | <i>100</i> | <b>51</b>             | <i>100</i> | <b>141</b>   |
| <b>Age group</b>                         |                      |            |                       |            |              |
| less than 20 years                       | 2                    | 2          | 4                     | 8          | 6            |
| between 21-40 years                      | 30                   | 33         | 13                    | 25         | 43           |
| between 41-60 years                      | 44                   | 49         | 29                    | 57         | 73           |
| more than 61 years                       | 14                   | 16         | 5                     | 10         | 19           |
| Total                                    | <b>90</b>            | <i>100</i> | <b>51</b>             | <i>100</i> | <b>141</b>   |

**Table 2: Measures and Loadings**

| Items  | Neutral      | Stressed     | Pooled       |
|--|--------------|--------------|--------------|
| <b>HELPFULNESS</b> ( <i>strongly disagree / strongly agree</i> )   | <b>(.90)</b> | <b>(.93)</b> | <b>(.91)</b> |
| They provided me with information that was helpful   | .83          | .87          | .84          |
| The help they offered me was valuable  | .87          | .94          | .90          |
| They helped me resolve my request (this could also be by providing information)  | .79          | .80          | .81          |
| <b>COURTESY</b> ( <i>strongly disagree / strongly agree</i> )  | <b>(.92)</b> | <b>(.94)</b> | <b>(.93)</b> |
| The police were very courteous when they helped me   | .75          | .67          | .72          |
| They listened to me carefully  | .75          | .86          | .81          |
| They were very empathetic to me  | .84          | .87          | .85          |
| They were willing to help me   | .77          | .78          | .77          |
| They treated me with respect   | .86          | .90          | .88          |
| They made no inappropriate or rude remarks while they attended me  | .45          | .56          | .50          |
| <b>SPEED</b> ( <i>strongly disagree / strongly agree</i> )   | <b>(.89)</b> | <b>(.91)</b> | <b>(.90)</b> |
| The time it took before I was attended or helped was acceptable  | .79          | .76          | .78          |
| They were working in an efficient manner   | .84          | .90          | .86          |
| The total time it took to process my request was acceptable  | .84          | .88          | .85          |
| <b>CONCERN</b> ( <i>strongly disagree / strongly agree</i> )   | <b>(.86)</b> | <b>(.92)</b> | <b>(.88)</b> |
| They offered me useful information   | .71          | .78          | .73          |
| They wanted me to feel comfortable   | .83          | .92          | .87          |
| They seemed to care about my well-being  | .85          | .91          | .87          |
| <b>SATISFACTION</b> ( <i>very dissatisfied / very satisfied</i> )  |              |              |              |
| Thinking back on your last contact with your district police, how would you rate your overall satisfaction?              | 1            | 1            | 1            |
| <b>TRUST</b> ( <i>strongly disagree / strongly agree</i> )   | <b>(.92)</b> | <b>(.88)</b> | <b>(.91)</b> |
| The police will treat all people in the same respectful manner   | .64          | .84          | .75          |
| Policemen/women are trustworthy  | .67          | .53          | .61          |
| Policemen/women have an ethical conduct in everything they do  | .59          | .75          | .68          |
| I have confidence in investigations performed by district police   | .82          | .73          | .79          |
| Information provided to them will be treated with confidentiality  | .79          | .48          | .66          |
| I have confidence that they will help me if I need them again  | .73          | .46          | .60          |
| <b>WORD OF MOUTH</b> ( <i>very negative / very positive</i> )  |              |              |              |
| If you have talked to anyone about your last contact with your district police, were your comments negative or positive? | 1            | 1            | 1            |
| <b>STRESS</b> ( <i>not stressful at all / very stressful</i> )   |              |              |              |
| If it was related to a stressful situation, how would you rate the intensity of that situation?                          |              |              |              |

NOTE: The loadings correspond to the communalities from the model's Partial Least Squares estimation, which are lower than factor loadings. Cronbach's reliabilities are in parenthesis. These values are above 0.70, proving scales' consistency.

**Table 3: Psychometric Properties of Measures**

| Neutral State         | Mean | SD   | Intercorrelations |            |            |            |          |            |          |  |
|-----------------------|------|------|-------------------|------------|------------|------------|----------|------------|----------|--|
|                       |      |      | 1                 | 2          | 3          | 4          | 5        | 6          | 7        |  |
| 1. Helpfulness        | 8.2  | 2.13 | <b>.91</b>        |            |            |            |          |            |          |  |
| 2. Courtesy           | 9.0  | 1.39 | .70               | <b>.89</b> |            |            |          |            |          |  |
| 3. Speed              | 7.9  | 2.19 | .53               | .43        | <b>.91</b> |            |          |            |          |  |
| 4. Concern            | 7.5  | 2.14 | .71               | .61        | .65        | <b>.89</b> |          |            |          |  |
| 5. Satisfaction       | 8.4  | 2.00 | .57               | .55        | .54        | .56        | <b>1</b> |            |          |  |
| 6. Trust              | 7.3  | 1.88 | .50               | .53        | .22        | .34        | .30      | <b>.84</b> |          |  |
| 7. W-o-M              | 7.4  | 2.04 | .07               | .12        | .15        | .08        | .13      | -.05       | <b>1</b> |  |
| <b>Stressed State</b> |      |      |                   |            |            |            |          |            |          |  |
| 1. Helpfulness        | 7.4  | 2.59 | <b>.93</b>        |            |            |            |          |            |          |  |
| 2. Courtesy           | 8.6  | 1.61 | .78               | <b>.88</b> |            |            |          |            |          |  |
| 3. Speed              | 7.6  | 2.27 | .64               | .73        | <b>.92</b> |            |          |            |          |  |
| 4. Concern            | 7.3  | 2.37 | .68               | .75        | .87        | <b>.93</b> |          |            |          |  |
| 5. Satisfaction       | 7.2  | 2.83 | .73               | .68        | .53        | .53        | <b>1</b> |            |          |  |
| 6. Trust              | 7.4  | 1.75 | .55               | .40        | .36        | .36        | .56      | <b>.80</b> |          |  |
| 7. W-o-M              | 7.0  | 2.67 | .70               | .71        | .50        | .54        | .89      | .60        | <b>1</b> |  |
| <b>Pooled Sample</b>  |      |      |                   |            |            |            |          |            |          |  |
| 1. Helpfulness        | 7.9  | 2.33 | <b>.92</b>        |            |            |            |          |            |          |  |
| 2. Courtesy           | 8.8  | 1.48 | .74               | <b>.87</b> |            |            |          |            |          |  |
| 3. Speed              | 7.8  | 2.22 | .57               | .55        | <b>.91</b> |            |          |            |          |  |
| 4. Concern            | 7.4  | 2.22 | .69               | .67        | .74        | <b>.91</b> |          |            |          |  |
| 5. Satisfaction       | 8.0  | 2.40 | .66               | .62        | .53        | .54        | <b>1</b> |            |          |  |
| 6. Trust              | 7.3  | 1.83 | .49               | .45        | .26        | .34        | .36      | <b>.83</b> |          |  |
| 7. W-o-M              | 7.2  | 2.29 | .08               | .11        | .13        | .07        | .12      | -.04       | <b>1</b> |  |

NOTE: SD stands for standard deviation. Intercorrelations provide the shared variance between constructs and the diagonal the squared root of the average variance extracted (AVE) for each construct. The high values of the AVEs confirm that average communality of the measures in the model are above or close to the recommended threshold of 0.70, thus proving discriminant validity.

**Table 4: ANOVA Results and Means**

| <b>Variable</b> | <b>Neutral State</b> | <b>Stressed State</b> |
|-----------------|----------------------|-----------------------|
| Helpfulness*    | 8.2                  | 7.4                   |
| Courtesy*       | 9.0                  | 8.5                   |
| Speed           | 7.9                  | 7.6                   |
| Concern         | 7.5                  | 7.3                   |
| Satisfaction*** | 8.4                  | 7.2                   |
| Trust           | 7.3                  | 7.4                   |
| Word-of-mouth   | 7.4                  | 7.0                   |

\*\*\* significant at 0.01 level, \*\* at 0.05 level, \* at 0.10 level

**Table 5: Regression of Service Attributes on Service Satisfaction**

| <b>Variable</b>   | <b>Neutral State</b> | <b>Stressed State</b> | <b>Pooled</b> | <b>F[5, 131]</b> |
|-------------------|----------------------|-----------------------|---------------|------------------|
| Helpfulness       | 0.18                 | 0.55***               | 0.40***       | 2.55             |
| Courtesy          | 0.25**               | 0.26                  | 0.25**        |                  |
| Speed             | 0.28**               | 0.10                  | 0.21**        |                  |
| Concern           | 0.10                 | -0.12                 | -0.06         |                  |
| Adjusted R Square | 41.1                 | 52.3                  | 47.3          |                  |

\*\*\* significant at 0.01 level, \*\* at 0.05 level, \* at 0.10 level

**Table 6: Regression of Service Satisfaction on Outcomes**

| <b>Variable</b>                          | <b>Neutral State</b> | <b>Stressed State</b> | <b>Pooled</b> | <b>F[2, 137]</b> |
|--|----------------------|-----------------------|---------------|------------------|
| Satisfaction                             | 0.28***              | 0.51***               | 0.35***       | 1.36             |
| Adjusted R Square                        | 6.8                  | 24.6                  | 11.6          |                  |
| Dependent variable: <b>trust</b>         |                      |                       |               |                  |
| Satisfaction                             | 0.59***              | 0.90***               | 0.74***       | 4.06             |
| Adjusted R Square                        | 33.7                 | 79.9                  | 54.4          |                  |
| Dependent variable: <b>word-of-mouth</b> |                      |                       |               |                  |

\*\*\* significant at 0.01 level, \*\* at 0.05 level, \* at 0.10 level