

TRAFFIC LOCUS OF CONTROL AND DRIVER COPING STYLES:
THE MODERATING ROLE OF DISPOSITIONAL AFFECT

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BURCU ARSLAN

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Prof. Dr. Tülin Gençöz
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science/Arts / Doctor of Philosophy.

Prof. Dr. Canan
Sümer
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science/Arts/Doctor of Philosophy.

Assist. Prof. Dr. Bahar
ÖZ
Supervisor

Examining Committee Members

Prof. Dr. Türker Özkan (METU, PSY)

Assist. Prof. Dr. Bahar Öz (METU, PSY)

Assist. Prof. Pınar Bıçaksız (Çankaya Uni, PSİ)

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name: Burcu ARSLAN

Signature:

ABSTRACT

TRAFFIC LOCUS OF CONTROL AND DRIVER COPING STYLES: THE MODERATING ROLE OF DISPOSITIONAL AFFECT

Arslan, Burcu

M.S., Department of Psychology

Advisor: Assist. Prof. Dr. Bahar Öz

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The aim of the study is to examine the relationship between traffic locus of control, driver coping styles and the moderating role of dispositional affect on this relationship. The results showed that drivers who are more enthusiastic, more active reported that they have more adopted confrontive coping style in a stressful situation. Negative affect was found to be the only moderator in two relationships; the relationship between self locus of control and task-focused coping and the relationship

between fate locus of control and emotion-focused coping. The findings, critical remarks of the study and suggestions for future studies were discussed.

Keywords: coping with driver stress, locus of control, dispositional affect.

ÖZ

TRAFİKTE KONTROL ODAĞI VE SÜRÜCÜLERİN STRESLE BAŞ ETME STİLLERİ: POZİTİF-NEGATİF DUYGU DURUMUN DÜZENLEYİCİ ROLÜ

Arslan, Burcu

Yüksek Lisans, Psikoloji Bölümü

Danışman: Dr. Öğr. Üyesi. Bahar Öz

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Bu çalışmanın amacı, sürücülerin trafikte stresle başa çıkma stilleri ile trafikteki kontrol odağı özelliği arasındaki ve pozitif-negatif duygu durumunun bu ilişki üzerindeki düzenleyici etkisini incelemektedir. Sonuçlar gösteriyor ki, pozitif duygu durumu ile yüzleşme başa çıkma stili arasında anlamlı ilişki vardır. Bunun yanında, negatif duygu durumu düşük olan kişilerde, benlik kontrol odağı arttıkça görev odaklı başa çıkma

stili daha çok kullandıkları görülmüştür. Son olarak, negatif duygu durumu düşük olanlar kişilerde, kader kontrol odağı yükseldikçe sürücülerin duygu odaklı başa çıkma stilini daha çok kullandıkları görülmüştür. Sonuçların tartışması, çalışmanın önemli noktaları ve gelecek çalışmalar için öneriler tartışılmıştır.

Anahtar Kelimeler: sürücülerde stresle başa çıkma, trafik kontrol odağı, pozitif-negatif duygu durumu

To my family

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CHAPTER 1

INTRODUCTION

1.1. Coping with Driver Stress

Coping with driver stress studies took little attention in driver stress literature. It is an important issue because the driving is a very challenging task and often go along with high stress. Further, coping with driving-related stress can be seen as a behavioral/cognitive indicator of stress, which influences performance or symptoms of stress (Matthews, 2002). In detail, coping styles of drivers determine the outcome of stress, which eventually either ensure or jeopardize safety or health of driver (Gulian, Matthews, Glendon, Davies, Debney, 1989; Emo, Matthews & Funke, 2016; Matthews, Desmond, Joyner, Carcary, Gilliland, 1997; Kontogiannis, 2006; Matthews, 2002). The concept of coping with stress is indicated as parts of and studied based on various stress models, both in a cognitive model of stress (Lazarus & Folkman, 1984) and transactional models of driver stress (Matthews, 2002). Even though driving-related stress model and concept of coping with driver stress were first represented by Matthews

(1996; 2002), most of the driver stress and coping studies were conducted based on Lazarus and Folkman's cognitive stress model (1984).

1.1.1. Coping with Stress

According to cognitive stress model (Lazarus & Folkman, 1984), stress and its outcomes were mediated by cognitive appraisal and coping styles. Cognitive appraisal begins with an individual's primary appraisal of the situation; whether the situation is harmful or threatening or challenging and/or whether is controllable or not. If the situation is considered as harmful or threatening to the individual, the secondary appraisal is made in order to find the ways to deal with the situation. The secondary appraisal is related to an individual's resources (e.g. What can be done?, How to cope with?). Based on the primary and secondary appraisal of a situation, individuals choose a strategy to cope with situational demands (Coyne & Folkman, 1980; Lazarus, 1984).

Folkman and Lazarus (1984) defined coping as managing aversive stimuli by behavioral and cognitive efforts. It is stated that individuals have two coping options, whether they regulate their emotions in face of threatening or challenging situations (emotion-focused coping) or they approach or avoid from that situation (problem-focused coping). Emotion-focused coping is related to changing the meaning or significance of the situation, on the other hand, problem-focused coping is related to changing situation itself (Folkman & Lazarus, 1980). In many studies, emotion-

focused coping was found as maladaptive, whereas problem-focused coping is found to be adaptive coping style.

Lotfi and his colleagues (2017) found that emotion-focused coping oriented drivers reported the higher amount of violations than problem-focused coping oriented drivers. In another study, drivers who dislike driving are found to tend to react emotionally to the stressful situation rather than behaviorally (Shamoa-Nir & Koslowsky, 2010). Authors also pointed out that problem-focused coping moderate the relationship between perceived stress and aggression while driving.

It was argued that one of the most important factors affecting coping with stress was controllability of events or belief about the controllability of event. Appraisal of the stressful stimulus was affected by controllability/ one's belief about the controllability of events. Controllability was regarded as having anxiety reduction function (Madler & Watson, 1966) such that personal control over events makes it possible for individuals to cope with threatening event with a proper cognitive plan, which in turn reduces anxiety and stress. However, Averill's review (1973) about personal control over aversive stimuli and its relationship to stress pointed to lacks in this suggestion. Averill proposed that controllability of events, depending on the meaning of control, may reduce, increase or may not have any effect on the level of stress. Stress reduction function of controllability of events is dependent on the effectiveness of coping strategies. The emotion-focused coping strategy was found as most

effective if a stressful situation is uncontrollable while problem-focused coping strategy was most effective if a stressful situation is controllable (Folkman & Lazarus, 1984). In another study, emotion-focused coping was found to increase stress-related growth when the stressful situation is high on uncontrollability (Göral, Kesimci & Gençöz, 2006).

Whereas cognitive model of stress (Lazarus & Folkman, 1984) is widely used to explain the driver stress in literature, an alternative approach to driver stress is identified by Matthews (2002). Matthews specified different coping styles of drivers expressed in the driving situation. These coping styles differed regarding their safety impacts. In the cognitive stress model, emotion and problem-focused coping styles may be both functional and dysfunctional depending on the situation as explained earlier. However, Matthews' transactional model of driver stress differentiated coping styles regarding their adverse or beneficial effect on performance outcome and stress symptoms of drivers.

1.1.2. Coping with Driver Stress

Driver stress in the transactional model of Matthews (2002) is defined as “the set of responses associated with perception and evaluation of driving as being demanding or dangerous relative to the individual's driving capabilities” (Gulian et al, 1989, p. 585). This transactional model is a demonstration of the interaction between environmental stressors (e.g. workload, traffic jam) and personality traits related to stress vulnerability.

This interaction affects driver's appraisal process and selection of coping style, namely cognitive stress processes. According to Gulian (1989), the transactional model of driver stress also implicitly consists of that extraneous-to-driving factors may contribute to driver stress. There are many factors extraneous-to-driving interfering with driver abilities, attenuating performance of drivers or inhibiting required response in stressful situations (Gulian et al, 1989; Hennessy, Wiesenthal & Kohn, 2000). Novaco, Stokols, Campbell, and Stokols (1979) argued that distance and time parameters were important determinants of drivers' stress levels while commuting to work or home. Hill and Boyle (2006) reported that the driver stress level was influenced by the visibility of road and weather conditions. High congestion conditions (Hennessy & Wiesenthal, 1999; Hennessy, Wiesenthal & Kohn, 2000) and daily hassles (Hennessy, Wiesenthal & Kohn, 2000) were also important factors elevating driver stress. Besides road or weather conditions, stressors related to work were also considered as responsible for an elevated level of stress while driving (Norris, Matthews, Riad, 2000; Matthews, Tsuda, Xin & Ozeki, 1999).

Similar with cognitive stress model, coping styles precedes to stress outcomes in transactional driver stress model. Meaning that coping styles of drivers lead to performance outcomes and subjective stress symptoms (Matthews, 2002). Within this model, Matthews and his friends (1996) defined five habitual styles of coping specific to drivers, which are confrontive coping strategies (e.g. relieved stress feelings by risk-taking or

driving fast), emotion-focused coping (e.g. blamed oneself for being too emotional), task-focused coping (e.g. tried to watch carefully one's speed), reappraisal coping (e.g. feeling of becoming more experienced driver) and avoidance coping (e.g. keeping oneself detached or distanced from situation). Confrontive coping refers to stand up against other road users to show one's needs. Emotion-focused coping refers to regulating one's emotions and feelings within the stressful situation. Task-focused coping reflects planning most effective action which meets one's need and keeps the safety of driver simultaneously. Avoidance coping is to move away from one's thoughts and disengagement from the stressful situation. Finally, reappraisal is the coping style which one reappraise situation and try to change the meaning of the situation.

Coping styles have a strong effect on driver behaviors and driver health. Confrontive coping is found to be related to such as speeding (Emo, Matthews & Funke, 2016; Matthews et al, 1997) and higher mistakes and violations (Kontogiannis, 2006; Matthews et al, 1997). Likely, emotion-focused coping was found to be related to higher mistakes (Kontogiannis, 2006; Matthews et al, 1997) and with higher injury rates (Shamoa-Nir & Koslowsky, 2010). Avoidance was also found as related to violations, speeding, and errors. On the other hand, reappraisal coping strategy was found to be related to lower speeding (Matthews et al, 1997) and more positive affect at the end of the workday (Machin & Hoare, 2008). Task-focused coping was found as related to driver's performance and safety

behaviors (Machin & Hoare, 2008) such as fewer violations and errors, and lower speeding (Matthews et al, 1997). Task-focused coping strategy leads drivers to develop their safety knowledge, focus on precautions and commit to safe behaviors (Machin & Hoare, 2008). According to the study of Machin and Hoare (2008), confrontive coping and emotion-focused coping were related to need for recovery after the workday. Bus drivers that prefer confrontive coping strategies experience more severe symptoms to warrant medical attention, became more fatigued and reported more negative affect. Similarly, emotion-focused coping was found as a strong predictor of post-drive fatigue among Australian truck drivers. (Desmond & Matthews, 2009). Desmond (1997) stated that task-focused coping is related to high energy, more pleased mood and low level of fatigue. Webb, Miles, and Sheeran (2012) stated that reappraisal is an effective way to regulate the emotions.

Dorn (2005) conducted a study with police officers who are received advanced driving training. She found that confrontive coping style was positively related to speeding in hazardous situations. However, task-focused coping was significantly related to increased safety, cautiousness at hazard. She concluded that even advanced training does not change police driver's behavior in the stressful situation.

Matthews' attempts to differentiate coping styles regarding their safety impacts were supported by the studies above. Consequently, confrontive coping, emotion-focused coping and avoidance coping were

considered as maladaptive coping due to their probability of leading to cognitive distraction, whereas task-focused coping and reappraisal coping style were considered as adaptive coping due to their probability of leading to focus on the task at hand and situation.

1.1.3. Factors Related to Drivers' Coping Styles

Factors affecting the selection of coping styles vary from demographic features of drivers. Mainly age was found as one of the most predictors of coping styles of drivers. Younger drivers reported more use of insufficient coping styles such as emotion-focused coping (Gulian et al, 1990; Lotfi et al, 2017). Reappraisal and task-focused coping were reported to decrease by age (Kontogiannis, 2006). Gender is another factor affecting the selection of coping styles. Although women were found as more distressful than men (Holland, Geraghty, Shah, 2010), they reported more use of reappraisal while men reported more confrontive coping styles (Exposure was also found as a predictor of coping styles of drivers. Machin and Hoare (2008) found that weekly driving hours positively correlated to confrontive and avoidance coping styles, which are labeled as maladaptive coping styles. Finally, accident involvement and severity of incidents were claimed as predictors of drivers' coping styles (Lotfi et al, 2017).

Mainly in stress studies, generalized belief about control was also an important concern for driver stress (Stanton & Young, 2000; Novaco et al., 1979; Lajunen & Summala, 1995; Evans & Carrère, 1991). However,

the role of generalized belief of control on coping with driver stress was rather ignored. Since general stress literature proved that generalized belief of control has an important effect on coping style (Lazarus & Folkman 1984; Folkman, 1984; Averill, 1973), it is expected that control beliefs are related to driving should have a key role in coping with driver stress.

Another important personality factor was found to be dispositional affect. Positive and negative affect characteristics were studied in studies of both general life stress and driver stress. Regarding general life stress, individual's dispositional affect had an influence on the cognitive process of stress, mainly on appraisals of the situation (Folkman & Moskowitz, 2000). In addition, affect characteristics of an individual was considered as affecting individual's appraisal in terms of controllability of situations.

The current study will mainly focus on the relationship between locus of control and dispositional affect of drivers and their coping styles in the stressful situations in traffic.

1.2. Generalized Belief of Control

Thompson (1981) stated that one's control over the situation does not have to be actually exercised to show its effect on behavior. Indeed, one's belief of control over the situation produces the same effect as if the control is actually exercised. Rotter (1966) developed an extensive theory regarding generalized belief of control. He suggested that beliefs about whom have control over situations is standing through different settings and situations, which was named as locus of control.

1.2.1. Locus of Control

The theory explains people's beliefs about what determines/controls events and reinforcements they will get; either by internal factors (e.g. personal skill, competency, availability) or external factors (e.g. chance, faith, and environmental factors). Beliefs of people about the source of consequences placed them onto continuum scale of internal-external orientation. Rotter (1966) defines the internal locus of control (LOC) as an expectation of individual which events are dependent on individuals' behavior and/or characteristics whereas external locus of control as an expectation of individual which events that are dependent on factors like chance, faith, and environmental/ situational factor or powerful others. Externality and internality as a personality factor were found as predictor factors for performances of individuals. Regarding that, Rotter (1966) and Parkes (1984) stated that internal locus of control leads to better performance because people with high internal locus of control were more concerned about their performance, more cautious for future events than people with high external locus of control.

Some driver performance studies supported those ideas. Hoyt (1973) showed that drivers who are high on an internal tendency for attribution of causes of accidents used seat belt more and tended to report less anxiety when driving than drivers who are high on external locus of control. Drivers high on the internality scale are also found to score high on alertness (Lajunen & Summala, 1995). Externals were also found to display

more aggression while driving than internals (Balogun, Shenge & Oladipo, 2012; Holland, Geraghty & Shah, 2010) that in turn may lead to errors and fatal accidents. Even when hostility level is kept high and equal for both externals and internals, adverse effect of hostility on dangerous driving behaviors may be decreased by an internal locus of control (Gidron, Gal & Desevilya 2003). Taris's study (1997) about the relationship between perception of situational characteristics, driving behavior and locus of control revealed that drivers with high internal locus of control do not give importance to verifiability of their actions on road, whereas verifiability of actions is very important for drivers with high external locus of control. Considering that the study recruited young university students, internal young drivers may give more importance to what they would gain from driving, rather than what other drivers would think of them.

Although driver studies conducted by using Rotters' LOC gave important results, items of scale include general life conditions. Need for a LOC scale specific to the driving environment was pointed by Montag and Comrey (1987). They argued that items with conditions specific to traffic environment may provide more accurate findings than general life conditions. Thus, they developed a locus of control scale specific to driving, based on Rotter's LOC conceptualization. Driving internality and driving externality were used to explain drivers' behaviors in a more specific perspective.

1.2.2. Driving Related Locus of Control

The results of studies of Montag and Comrey (1987) draw similar conclusions to previous driver locus of control studies conducted by using Rotter's LOC. They found that driving internality is negatively and driving externality is positively related to fatal accidents. The reasons about why externality in driving is related to negative outcomes of driving behavior may be related to external drivers' ignorance of feedback from driving experience, because their thoughts are mainly focused on events being not due to their own behavior and externality may be related to lack of caution and lead drivers to fail to take precautionary steps (Montag & Comrey, 1987). However, this assumption was contradicted with Brackston's study (2003) with a finding that higher scores on driving externality were positively associated with higher following distance and lower speeding. Many others studies were found that externality is more related to safe driver behaviors than internality does. Errors, lapses and driver's violations were positively correlated with perception of accidents to internal factors (Mognon & Santos, 2017). External LOC is negatively related to risky behavior and positively related to risk perception (Măirean, Havârneanu, Popușoi & Havarneanu, 2017) and carefulness and distress reduction (Ambak, David, Mamat, Prasetijo, Md Rohani, 2014). These inconsistencies may result from that external and internal LOC dichotomization were insufficient to explain the behavior within high complex situation such as traffic. Therefore, Özkan and Lajunen (2005)

attempted to extend these dichotomize factor structure. They found more specific LOC factors related to driving.

Multidimensional Traffic Locus of Control (T-LOC) scale by Özkan and Lajunen (2005) consisted of four dimensions specific to the driving situation. Self is a dimension which refers to perceiving the causes of accidents to drivers him/herself, on the other hand, Other drivers dimension refers to perceiving the causes of accidents to other drivers. Vehicle-Environment dimension reflects drivers' perception of causes of accidents to vehicular or environmental factor such as malfunction of vehicle or weather conditions. Finally, Fate dimension reflects drivers' perception of causes to factors like fate or luck. During development study of the scale, number of accidents, number of offenses, aggressive violation, ordinary violation, and errors were found positively related to Self dimension, which corresponds to the internal locus of control. On the other hand, Vehicle-Environment dimension was found to be associated negatively with a number of offenses and positively with errors. Whereas Other drivers dimension predicted errors negatively. Oz (2016) found that Fate factor is associated with higher errors and lower positive driver behavior. Risk evaluation of a driver was also found to be affected by T-LOC. Drivers who perceive their risk of involvement in an accident highly were more likely to perceive the causes of the accident as their own responsibility (Doğan, 2006).

Warner, Özkan and Lajunen (2010) tested the factorial structure of T-LOC scale with Swedish drivers. Same as the original study, Vehicle-Environment, Other drivers and Fate factors yielded three distinct factors. Self factor, on the other hand, was divided into two distinct subfactors, own behavior and own skill. Furthermore, Self was found to be positively related to speeding behavior on only 90 km/h roads as well as the preferred speed at same roads, and negatively related to intention to comply with speed limits. On the contrary, Vehicle-Environment is negatively related to speeding behavior on only 90 km/h roads and preferred speed, and positively related to intention to comply with speed limits (Warner, Özkan & Lajunen, 2010). Măirean, Havârneanu, Popușoi & Havarneanu (2017) conduct a study to develop a T-LOC specific to Romanian drivers with the mean age of 37. They found 5 factors defining T-LOC-RO; which are an internal locus of control, destiny/luck, vehicle-environment, other drivers, and unlike T-LOC scale of Özkan and Lajunen, religiosity, which is also found as a distinct factor of T-LOC-RO. They found that externality-related factors, destiny/luck, vehicle-environment, other drivers and religiosity are negatively related to risky behavior, and positively related to risk perception.

1.2.3. Relationship between Locus of Control and Coping Styles

As noted earlier, general control beliefs have important influences on stress and coping. Particularly, there are many findings relating internal

locus of control with protection against acute and chronic stress (Karstoft, Armour, Elklit, Solomon, 2015) as well as effective, adaptive coping strategies; whereas external locus of control with increased stress and ineffective coping styles. Zhang, Liu, Jiang, Wu and Tian (2014) stated that internal locus of control and problem solving coping style enhance resilience for post-traumatic stress disorder symptoms. Strickland (1978) stated that internal locus of control-oriented patients are more engaged in seeking information about their diseases than external locus of control-oriented patients. Similarly, when people perceive that responsibility belongs to powerful other, they prefer avoidance or disengagement from the stressful situation. Perceiving consequences of events are being due to chance factor may tend to lead aversive coping ways such as alcohol use (Gianakos, 2002; Brosschot, Gebhardt, Godaert, 1994), which, in turn, results in weaker and ineffective coping (Vickers, Conway & Haight, 1983). On the other hand, when perceiving the consequences of events as their own responsibility, people seek help or alternative ways to cope with stressful situations (Gianakos, 2002).

1.3. Dispositional Affect

1.3.1. Negative and Positive Affect

Affective structure of individual was proposed as a two factor model by Watson Clark and Tellegen (1988). They proposed that negative

affect and positive affect was not quite opposite to each other, but they were distinct dimensions. Positive affect generally indicated to which extent people feel enthusiastic, alert or awoken. High positive affect indicated to high pleasure and engagement toward the environment, whereas low positive affect indicated to low vigor, the tendency to depression. On the other hand, high negative affectivity refers to aversive moods such as disgust, fear, nervousness, and distress, while low negative affectivity refers to calm and relaxed state (Watson, Clark & Tellegen, 1988).

Rhodes and Pivik (2010) found that positive affect is a stronger predictor risky driving in high risk driver. For teens and male drivers, positive affect accelerated risk taking behaviors and aberrant driving. Another study supported these findings. Positive affect was positively related to speeding violation, and particularly one item was found as the most predictor of positive affect, which was “put one over on another individual”. Negative affectivity, on the other hand, was negatively associated with speeding. Likelihood of losing control over the vehicle was found as the strongest predictor of negative affectivity, which reduced driver’s likelihood of performing aberrant driving, it increased aggression of driver to other drivers (Lawton, Manstead, Stradling & Parker, 1997). These results can be interpreted as positive affect may increase drivers’ willingness to show the mastery over the situation or other drivers while negative affect may increase driver’s anxiety or fear toward consequences

of having an accident. Knowing that factors not associated with them can lead to an accident, they might show aggression with fear or anxiety which is accelerated by negative affectivity.

1.3.2. Relationship between Dispositional Affect and Coping Styles

Dispositional affect characteristics were one of the most notable elements of coping strategies. It was found that positive affect has a protective function in stressful situations and leads individuals to be creative and adaptive in problem-solving (Bilings, Folkman, Acree & Moskowitz, 2000; Greenglass & Fiksenbaum, 2009; Fredrickson & Joiner, 2002). Moreover, negative affect is related to poor coping with stress (Clark & Watson, 1984; as cited in Watson, Clark & Tellegen, 1988). However, contradicting suggestions were also found in the literature. Folkman and Moskowitz (2000) reviewed studies related to positive affect and coping. They stated that positive affect is related to the possibility of mastery or gain in a stressful situation, which also points to challenge appraisal of stressful situations.

The studies examining the relationship between affect and coping with driver stress are very limited. Yet, similar findings with general coping studies were obtained. To illustrate, confrontive coping in which drivers react aggressively to other drivers is found to be generally accompanied with negative affect (Machin & Hoare, 2008), whereas task-focused coping

in which drivers focus on safe operation of driving seems to be related to positive affect (Desmond, 1997).

1.3.3. Relationship between Locus of Control, Dispositional Affect and Coping Styles

As seen in the previous sections, the generalized belief of control plays an important role as a personality factor in driver coping styles. In general stress studies, affect is another personality factor to determine how people cope with stressful situations. Although there is no study focusing on the relationships between these factors, some assumptions can be made in light of the findings explained earlier. As mentioned earlier, control belief of drivers determines how they cope with stress in traffic. Internal locus of control was related to adaptive copings such as seeking help, alternative ways, reappraising situations in more positive light (Strickland, 1978; Gianakos, 2002; Zhang et al, 2014). Moreover, these adaptive characteristics, in essence, required positive affect traits (Bilings, Folkman, Acree & Moskowitz, 2000; Greenglass & Fiksenbaum, 2009; Folkman & Moskowitz, 2000). High positive affect may strengthen the relationship between internal locus of control and adaptive coping styles in stressful situations, whereas a decrease in positive affect may be assumed to weaken this relationship. In detail, low positive affect, that is low vigor and depressed state, may buffer the cognitive process of coping with stress in a more adaptive way (Folkman & Moskowitz, 2000). That can make people

avoidant to take a step to manage the situation, jeopardize appraising situation appropriately, even they believe to have control over the situation. High negative affect (feeling of disgust, fear, anger) may interrupt to cope with stress effectively for people with an internal locus of control. Even, when people believe that they can choose any mean to cope with the situation due to their internal locus of control, and have high negative emotion, they may decide to cope with stress by risky behaviors, aggression, a manifestation of their mastery and capability. On the other hand, low negative affect may buffer the relationship between internal locus of control and adverse coping styles such as confrontive or emotional-focused coping. More relaxed, serene people are assumed to plan their behavior to cope with the stressful situation more carefully if they believe that control over situation belongs to them. Thus, low negative affect may demonstrate the relationship between internal locus of control and task-focused coping. However, in many studies with young participants, it was argued that young people with internal locus of control may be prone to risk taking due to their overconfidence (Özkan & Lajunen, 2005),

External locus of control is linked with maladaptive, inefficient (Vickers, Conway, Haight, 1983) and dangerous coping styles such as alcohol use (Gianakos, 2002; Brosschot, Gebhardt, Godaert, 1994). Negative affect is also positively related to adverse coping styles (Machin & Hoare, 2008). Thus, negative affect should play a role in the strength of

the relationship between the external locus of control and maladaptive coping styles. Main characteristics of negative affect such as high fear, disgust, and anger should lead individuals to take incautious steps to act upon stressful situation by interfering with the cognitive process to deal with situation safely (Matthews Dorn, Hoyes, Davies, Glendon & Taylor, 1998).

The aim of the study is to examine the relationship between traffic locus of control, dispositional affect and drivers' coping style. The main focus of study will be on the moderating role of dispositional affect on the relationship between traffic locus of control and coping styles, in order to improve understanding of the extent which dispositional affect has an influence on the relationship. Main expectation of the study is that different level of negative affect or positive affect might alter the relationship between traffic locus of control and coping styles of drivers.

CHAPTER 2

METHOD

2.1. Participants

The study included 344 drivers with age range of 19 - 64 ($M = 24.22$, $SD = 6.16$). 45.1% of drivers were females and 54.9% were males. The education level of drivers ranged from elementary school to postgraduate level. 49.1% of drivers were graduated from high school and 39% of drivers were received a bachelor's degree. Mean of the year of license ownership was 4.87. The average mileage of drivers was 85661 km ($SD = 553453.403$). 34.3% of participants never had an accident ($M = 1.48$, $SD = 2.13$). 98% of accidents reported by drivers did not include any injury or fatality.

2.2. Instruments

2.2.1. Demographic Information Form

Demographic information form developed to collect information about the driver's characteristics and driving history. This form included questions about age, gender, education level, license year, mileage during last year,

total mileage, accident involvement, drivers' active accident (participant driver is responsible for an accident), amount of accident caused an injury or fatality (Appendix A).

2.2.2. Driver Coping Questionnaire

Driver Coping Questionnaire (DCQ) is developed to measure the driver's style of coping with stress in traffic (Matthews et al, 1996). The DCQ was developed to assess cognitive reactions of drivers to stressful situations in the traffic environment. Drivers were asked how they would react in the face of stressful situations while driving. They were instructed to remember a stressful situation in the traffic environment, for example, a near-miss, traffic jam, poor visibility etc. Then, they were asked to rate how often they engage in each reaction in on a scale of 1 to 5 (Appendix B). The questionnaire has 35 reactions composing of 5 coping strategies, namely confrontive (e.g. Flashed my car lights or used horn in anger), task-focused (e.g. Made sure I kept my distance from the car in front), emotion-focused (e.g. Criticized myself for not driving better), reappraisal (e.g. Tried to gain something worthwhile from the drive), avoidance (e.g. Thought about good times I would had). Cronbach alpha for the factors in the current study were satisfied; .76, .78, .76, .70 and .53; respectively.

2.2.3. Positive and Negative Affect Schedule

The Positive and Negative Affect Schedule (PANAS) were developed by Watson, Clark, and Tellegen (1988). It was a brief measurement to assess the individual's affective states or traits. The scale consisted of 20 adjectives composing 2 factors. Positive Affect (PA) was assessed by participants' ratings of 10 adjectives; alert, attentive, active, determined, enthusiastic, excited, interested, proud and strong. Negative Affect (NA) was also assessed by 10 adjectives; afraid, ashamed, distressed, guilty, hostile, irritable, jittery, nervous, scared and upset. Participants were asked to rate how often they experience such mood states in the general frame of time on the scale of 1 (never) to 7 (always) (Appendix C)

Turkish adaptation of the scale was made by Gençöz (2000). Cronbach alpha for PA and NA in the current study were found as .78 and .84; respectively.

2.2.4. Multidimensional Traffic Locus of Control Scale

Multidimensional Traffic Locus of Control (T-LOC) scale was developed to examine in what extent drivers attribute causes of accidents to his/her ability and/or behavior, to other drivers, to vehicular or environmental factors, and to fate or powerful others (Özkan & Lajunen, 2005). The scale had 17 items with 4 factors; 5 items for Self factor, 6 items for Other Drivers factor, 3 items for Vehicle-Environment factor and 3 items for Fate factor (Appendix D). Cronbach alphas in the current study were found to be

0.83 for Self, 0.78 for Other drivers, 0.70 for Vehicle-Environment and 0.72 for Fate.

2.3. Procedure

Ethical permission from METU Human Subjects Ethics Committee was obtained before starting on data collection (Appendix E). Online survey programs, Qualtrics Online Survey Software and SONA System (which was a software program to enable university students to enroll according to their courses) were used to reach participants and collect the data. Students that participating to study via SONA received bonus points. Participants were asked to sign the informed consent form as agreed to join voluntarily before getting instruments of study. Inform consent form included information about researchers and study. Inform consent also ensured participants' anonymity and that their results will be used only for research purposes. After they signed informed consent, DCQ, T-LOC and PANAS were given, respectively.

CHAPTER 3

RESULTS

3.1. Statistical Analysis

The data were analyzed by the Statistical Package for Social Science (SPSS) 23. Firstly, the factor analysis of Driver Coping Questionnaire was examined. Secondly, descriptive analyses were conducted in order to see the mean, standard deviation and maximum-minimum values of scores. Thirdly, correlation analyses were conducted to demonstrate the general relationship between demographic variables, driver coping scores, traffic locus of control scores and dispositional affect scores. After, multiple hierarchical regression analyses were conducted in order to examine the relationships between these variables in detail and to explore the moderator role of dispositional affect. Lastly, simple slopes were drawn to demonstrate the moderator effect of dispositional affect on the relationship between driver coping and traffic locus of control.

3.2. Factor Analysis of Driver Coping Questionnaire

As Driver Coping Questionnaire was used in Turkish at the first time, factor analysis was examined. Factor structure of the Driver Coping Questionnaire was analyzed by Principle component analysis (PCA) with Varimax since component correlations were less than .30. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .81 and Bartlett's Test of Sphericity was significant ($df = 595, p < .001$) which indicated that the items were factorable. The examination of the scree plot showed that five factor solution was most applicable for the scale, which was same with original factor structure of the scale. The five factor analysis explained 44.60 % variance. One item did not load on any factor which was item 3 (Stayed detached or distanced from the situation). This item was considered as Avoidance coping item in the original study. Eleven items loaded in factor 1; 7 items were Task-focused coping items, 3 items were Reappraisal coping items and 1 item was Emotion-focused coping items according to the original factor structure of the study. Six items loaded into the factor 2, which are Confrontive coping items of the original factor structure. Another six items loaded into the factor 3; which consisted of the Emotion-focused coping items of the original study. Factor 4 was loaded by seven items; which were four items of Reappraisal, two items of Avoidance and one item of Confrontive coping, according to original factor structure. Finally, factor 5 was loaded by 4 items; which consisted of only Avoidance coping items of the original factor structure. (see Table 1.). To conclude, the

original five-factor structure was mostly demonstrated in the current study. Yet, some items loaded in the different factor in the original study were found to be loaded in the same factors. To compare the findings of the current study to the original study, the original factor structure was used in the further analysis.

Table 1. Factor Structure and Item Loadings of Driver Coping Questionnaire

Items	Factor 1-	Factor 2-	Factor 3-	Factor 4-	Factor 5-
Item 28	.80				
Item 27	.74				
Item 12	.69				
Item 35	.67				
Item 18	.55	-.36			
Item 13	.51	.32		.40	
Item 30	.50				
Item 24	.49				
Item 7	.48	-.35			
Item 32	.47			.40	
Item 14	.43				
Item 25		.76			
Item 9	-.30	.71			
Item 1		.67			
Item 22		.66			
Item 15		.61			
Item 8		.60			
Item 33			.78		
Item 23			.73		
Item 31			.72		
Item 29			.66		
Item 5			.62		
Item 17			.42		
Item 16				.63	
Item 26				.55	
Item 34	.39			.52	
Item 11		.39		.50	
Item 10				.42	
Item 2				.38	
Item 4		.32		.34	
Item 3					
Item 21					.71
Item 20					.71
Item 19					.53
Item 6					.37

3.3. Descriptive Analysis

Means, standard deviations, maximum and minimum values of age of participants, license year, total mileage, total accident that participants involved, total offenses, dispositional characteristics (Negative Affect and Positive Affect), traffic locus of control (Self, other drivers, Vehicle-Environment and Fate) and coping styles (Confrontive, Task-focused, Emotion-focused, Avoidance and Reappraisal) are presented in Table 2.

3.4. Correlations Analysis

Bivariate correlation using Pearson correlation coefficient (r) analysis was performed in order to present the relationship between all variables, including demographic variables, affect variables, traffic locus of control and drivers coping styles (see Table 3..). Age was positively correlated to emotion-focused coping style ($r = .11$). Older drivers appeared as reporting more emotional-focused coping than young drivers. The emotion-focused coping style was also found positively correlated to the number of offenses which drivers were fined in last three year ($r = .13$). As mentioned earlier, distracting effect of emotion-focused coping style, that is, lead drivers to shift their focus from driving to the management of their emotions, could be a reason why those drivers are fined more offenses than drivers with less emotion-focused coping style. About correlations between independent and outcome variables of the study, only affect factors were found significantly correlated to driver coping styles. Firstly, confrontive coping was found

positively correlated with positive affect ($r = .21$). In detail, drivers who are more exciting, alert and awake reported that they are coping with stress more by claiming superiority over or demonstrating aggressive behaviors toward other drivers. Secondly, reappraisal coping style was found as negatively correlated with negative affect ($r = -.12$).

	Mean	Std. Deviation	Minimum	Maximum
Demographic Features				
Age	24.22	6.17	19.00	64.00
License year	4.87	5.13	0	40
Total Accident	1.48	2.13	0	20
Total Offenses	1.22	2.480	0	20
Driver Coping Styles				
Confrontive Coping	40.46	19.18	.00	94.29
Emotion-focused Coping	45.84	19.09	.00	100.00
Reappraisal Coping	62.07	16.39	8.57	100.00
Avoidance Coping	40.37	14.60	.00	77.14
Task-focused Coping	73.39	16.38	.00	100.00
Dispositional Affect Characteristics				
Positive Affect	50.35	7.23	32.00	69.00
Negative Affect	31.91	8.39	10.00	56.00
Traffic Locus of Control				
Self	15.81	5.10	5.00	25.00
Other drivers	23.68	3.96	8.00	30.00
Vehicle Environment	9.58	2.48	3.00	15.00
Fate	6.42	2.69	3.00	15.00

Table 2. Descriptive Statistics for Measures of the Study (N = 344)

Table 3. Correlation between Variables of the Study

Demographic Variables	1	2	3	4	5	6	7	8
1. Age	1							
2. License Year	.88**	1						
3. Total Km	.13*	.31**	1					
4. Accident	.03	.05	-.02	1				
5. Ticket	.14**	.17**	.06	.23	1			
Dispositional Affect								
6. <i>Positive Affect</i>	.09	.10	.12*	-.01	-.02	1		
7. <i>Negative Affect</i>	-.05	-.07	-.06	.12*	.06	-.32**	1	
Traffic Locus of Control								
8. <i>Self</i>	-.02	-.05	.03	-.11*	-.02	-.05	.17**	1
9. <i>Other drivers</i>	.08	.06	-.01	-.08	-.07	.10	.08	.36**
10. <i>Vehicle-Environment</i>	.04	-.03	-.11*	-.10	-.12*	.03	.11*	.43**
11. <i>Fate</i>	-.06	-.08	-.09	-.05	-.06	.09	.075	-.07
Driver Coping Styles								
12. <i>Confrontive</i>	.04	.01	-.02	-.01	-.07	.22**	-.06	-.05
13. <i>Emotion-focused</i>	.11*	.11	-.07	.01	.13*	-.02	-.01	-.00
14. <i>Reappraisal</i>	.06	.05	.08	-.02	.07	.08	-.12*	-.09
15. <i>Avoidance</i>	.04	.03	.04	-.02	.07	.01	-.07	.04
16. <i>Task-focused</i>	.03	.05	.02	-.02	.07	.01	-.09	.01

Table 3. (continued)

	9	10	11	12	13	14	15
Traffic Locus of Control							
8. <i>Self</i>	.36**						
9. <i>Other drivers</i>	1						
10. <i>Vehicle-Environment</i>	.43**	1					
11. <i>Fate</i>	-.16**	.05	1				
Driver Coping Styles							
12. <i>Confrontive</i>	.03	-.01	.04	1			
13. <i>Emotion-focused</i>	-.06	-.01	.03	.03	1		
14. <i>Reappraisal</i>	-.01	-.04	-.02	.20**	.26**	1	
15. <i>Avoidance</i>	.04	-.02	-.009	.10	.27**	.42**	1
16. <i>Task-focused</i>	.01	.00	-.019	-.20**	.37**	.50**	.25**

3.5. Hierarchical Regression Analysis

The set of hierarchical regression analyses were conducted to examine the relationship between DCQ factors and T-LOC factors, then, explore moderator role of positive and negative affect in this relationship. In the first step, demographic variables were entered into the model. In the second step, traffic locus of control variables, Self, Other drivers, Vehicle-Environment and Fate, were entered into the model. In the third step, dispositional affect characteristics, Negative and Positive Affect, were included in the model. In order to examine the moderating effect of dispositional affect characteristics, interactions between T-LOC factors (Self, Other drivers, Vehicle-Environment and Fate) and dispositional affect characteristics (Negative and Positive Affect) were entered into the fourth step; “Self*PA, Other drivers*PA, Vehicle-Environment*PA,

Fate*PA” were entered in the fourth step of regression analysis to see the moderating role of Positive Affect and “Self*NA, Other drivers*NA, Vehicle-Environment*NA, Fate*NA” were entered in the fourth step of separate regression analysis to see the moderating role of Negative affect.

Even though demographic variables (age, gender, total mileage, accident involvement and number of offenses) were not revealed significant correlation with each coping styles, they were added as control variables into the model since they were found to be related to drivers’ coping styles in many studies (Gulian et al, 1990; Lotfi et al, 2017; Kontogiannis, 2006; Holland, Geraghty, Shah, 2010; Machin & Hoare, 2008).

3.5.1. Regression Analysis of Traffic Locus of Control and Dispositional Affect to Confrontive Coping Style

The result of the hierarchical regression analysis showed that first step including the model examining the relationship between confrontive coping and demographic variables was not revealed the significant effect on confrontive coping style, $p = .789$ (see Table 4).

In the second step, with the inclusion of the model examining relationship between confrontive coping and T-LOC factors, data were entered into the model, and it did not reveal any significant change, $p = .674$ (see Table 4).

In the third step in which Negative and Positive Affect were entered into the model, there were a significant change in the model, $R^2 = .042$, $\Delta R^2 = .042$, $F(11, 332) = 1.311$, $\Delta F(11, 332) = 7.416$, $p = .001$ (see Table 4).

In the final step, interactions between T-LOC factors and positive affect were entered into the model and there was not any significant change in $p = .609$. The reason being, there were not any mean effect or interaction effect of T-LOC factors and dispositional affect factors on Confrontive coping (see Table 4).

Regarding interactions between T-LOC factors and negative affect were entered into the model, there was no significant change in $p < .275$. When all variables were entered into the model, it was found that Positive Affect was positively related to Confrontive coping, $\beta = .212$, $t(343) = 3.627$, $p < .001$, CI 95% [.257, .866] whereas the interaction effect of any of dispositional affect variables and T-LOC factors on confrontive coping style were not any significant (see Table 4).

Table 4. Hierarchical Regression Analysis of T-LOC and Dispositional Affect on Confrontive Coping Style

Predictors	R	R ²	F	ΔF	B	SE	β
Step 1	.08	.01	.48	.79			
Age					.15	.17	.05
Gender					-.11	2.18	-.01
Mileage					.00	.00	-.04
Offenses					-.51	.44	-.07
Accident					-.11	.51	-.01
Step 2	.12	.01	.53	.58			
<i>Self</i>					-1.47	.96	-.39
<i>Other drivers</i>					-1.52	1.18	-.31
<i>Vehicle-Environment</i>					2.74	2.03	.35
<i>Fate</i>					-.78	1.39	-.11
Step 3	.24	.06	1.80	7.42**			
<i>Positive Affect</i>					0.56	.15	.21**
<i>Negative Affect</i>					-1.04	.77	-.45
Positive Affect (PA) as the moderator							
Step 4	.25	.06	1.5	.68			
<i>PA*Self</i>					-.01	.03	.03
<i>PA*Other drivers</i>					-.02	.04	.16
<i>PA*Vehicle-Environment</i>					.02	.07	-.31
<i>PA*Fate</i>					-.09	.05	-.68
Negative Affect (NA) as the moderator							
Step 4	.27	.07	1.66	1.29			
<i>NA*Self</i>					.04	.03	.49
<i>NA*Other drivers</i>					.05	.04	.64
<i>NA*Vehicle-Environment</i>					-.09	.06	-.59
<i>NA* Fate</i>					.02	.04	.13

Note. * $p < .05$. ** $p < .01$. B, Standard Error (SE) and β values were taken from the final step of each regression analysis

3.5.2 Regression Analysis of Traffic Locus of Control and Dispositional Affect to Task-Focused Coping Style

The results of the hierarchical regression analysis showed that the first step including the model examining relationship between *task-focused* coping and *demographic variables* were not any significant, $p = .612$ (see **Table 5**).

In the second step, the model examining relationship between *confrontive* coping and *T-LOC factors* was not revealed a significant change, $p = .998$ (see **Table 5**).

In the third step, *dispositional affect* variables were entered into the model and there was not any significant change in the model, $p = .277$ (see **Table 5**).

In the final step, interactions between *T-LOC factors and positive affect* were entered into the model and there was not any significant change in the model, $p = .752$ (see **Table 5**).

Regarding interactions between *T-LOC factors and negative affect* were entered into the model, there was no significant change in $p < .229$. Although the models did not show any significant results individually, when all variables were entered into the model, a significant positive relation was found between *Self* factor and *Task-focused* coping, $\beta = .556$, $t(344) = 2.142$, $p = .033$, $CI\ 95\% [.145, 3.419]$.

In addition to that, when *Negative Affect* was a moderator in final step, an interaction between *Self* factor and *Negative Affect* were found as significantly related to *Task-focused* coping, $\beta = -.779$, $t(344) = -2.124$, $p = .034$, $CI\ 95\% [-.107, -.004]$ (see Table 5). As seen in the figure of conducted simple slope analysis, *Self* has more impact on *Task-focused* coping when *Negative Affect* is low than when *Negative Affect* is high (see Figure 1).

Table 5. Hierarchical Regression Analysis of T-LOC and Dispositional Affect on Task-focused Coping Style

Predictors	R	R2	F	ΔF	B	SE	β
Step 1	.10	.01	.72	.72			
Age					.00	.15	.00
Gender					2.6	1.9	.08
Mileage					1.6	.00	.01
Offenses					.49	.38	.07
Accident					-.05	.44	-.01
Step 2	0.10	.01	.41	.03			
Self					1.8	.83	.56*
Other drivers					-.21	1.0	-.05
Vehicle-Environment					-.17	1.8	-.03
Fate					-.68	1.2	-.11
Step 3	.14	.09	.57	1.3			
Positive Affect					-.04	.14	-.02
Negative Affect					.12	.67	.10
Positive Affect (PA) as the moderator							
Step 4							
PA*Self	.16	.02	.54	.48	.00	.03	-.08
PA*Other drivers					.03	.04	.44
PA*Vehicle-Environment					-.09	.06	-.69
PA*Fate					.00	.05	-.03
Negative Affect (NA) as the moderator							
Step 4	.19	.04	.80	1.41			
NA*Self					-.06	.03	-.78*
NA*Other drivers					.01	.03	.15
NA*Vehicle-Environment					.01	.05	.07
NA* Fate					.03	.04	.17

Note. * $p < .05$. ** $p < .01$. B, Standard Error (SE) and β values were taken from the final step of each regression analysis

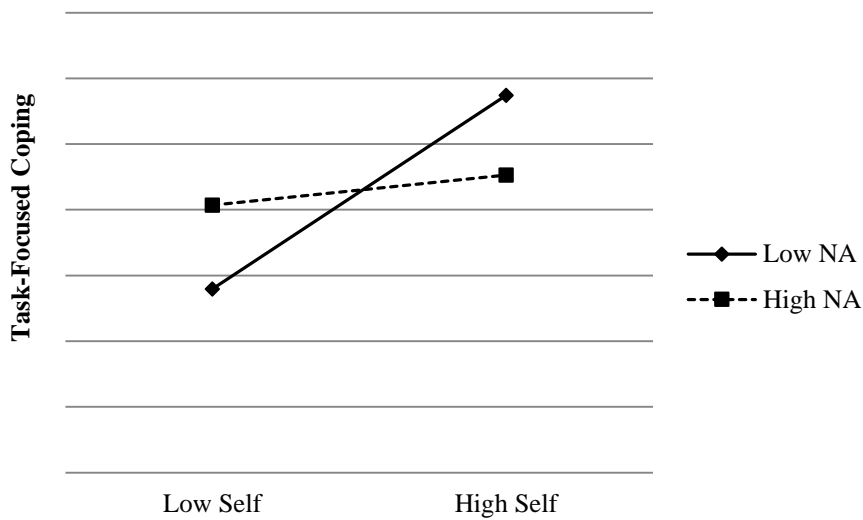


Figure 1. Interaction effect of negative affect and self locus of control on task-focused coping style of drivers. For low negative affect and high negative affect

3.5.3 Regression Analysis of Traffic Locus of Control and Dispositional Affect to Emotion-Focused Coping Style

The result of the hierarchical regression analysis showed that the first step including the model with demographic variables were significant, $R^2 = .036$, $F(5,338) = 2.530$, $p = .029$. In detail, number of offenses drivers were fined in their last year were found to be in a significant relationship with emotion-focused coping, $\beta = .118$, $t(343) = -2.084$, $p = .038$, $CI\ 95\% [.051, 1.776]$ (see Table 6.)

In the second model, *T-LOC* were entered in the model, there was no any significant change to be seen, $p = .77$ (see Table 6.).

In the third step in which *Negative* and *Positive Affect* variables were entered into the model, there were no significant changes, $p = .94$ (see Table 6.).

In the final step, interactions between *T-LOC factors and positive affect* were entered into the model and no significant changes found in $p = .238$ (see Table 6.).

When the interactions between *T-LOC factors and negative affect* were entered into the model, there was no significant change in $p = .107$. When all variables were presented into the model, it was found that there were main effects of age ($\beta = .121$, $t(344) = 2.169$, $p = .031$, $CI\ 95\% [.035, .715]$) and *Fate* factor ($\beta = -.393$, $t(344) = -1.998$, $p = .047$, $CI\ 95\% [-5.535, -.042]$). In addition, interaction effect of *Fate* and *Negative affect* on *Emotion-focused* coping were found to be significant, $\beta = .507$, $t(344) = 2.134$, $p = .034$, $CI\ 95\% [.007, .170]$ (see Figure 2). As seen in the figure of conducted simple slope analysis, increase in *Fate* results in decrease in *Emotion-focused* coping when *Negative Affect* is low. (see Table 6.).

Table 6. Hierarchical Regression Analysis of T-LOC and Dispositional Affect on Emotion-focused Coping Style

Predictors	R	R ²	F	ΔF	B	SE	β
Step 1	.19	.04	2.5	2.5*			
Age					.38	.17	.12*
Gender					1.5	2.18	.04
Mileage					.00	.00	-.09
Offenses					.92	.44	.12*
Accident					-.16	.51	-.03
Step 2	.20	.04	1.6	.45			
<i>Self</i>					-1.2	.96	-.33
<i>Other drivers</i>					-1.2	1.18	-.25
<i>Vehicle-Environment</i>					1.35	2.03	-.39
<i>Fate</i>					-2.8	1.40	.18*
Step 3	.20	.04	1.3	.07			
<i>Positive Affect</i>					-.03	.16	-.01
<i>Negative Affect</i>					-1.4	.77	-.60
Positive Affect (PA) as the moderator							
Step 4	.24	.06	1.3	1.3			
<i>PA*Self</i>					.02	.03	.22
<i>PA*Other drivers</i>					.03	.04	.36
<i>PA*Vehicle-Environment</i>					-.09	.07	-.68
<i>PA*Fate</i>					-.09	.05	-.70
Negative Affect (NA) as the moderator							
Step 4	.25	.06	1.5	1.9			
<i>NA*Self</i>					.04	.03	.50
<i>NA*Other drivers</i>					.02	.04	.29
<i>NA*Vehicle-Environment</i>					-.04	.06	-.25
<i>NA* Fate</i>					.09	.04	.51*

Note. * $p < .05$. ** $p < .01$. B, Standard Error (SE) and β values were taken from the final step of each regression analysis

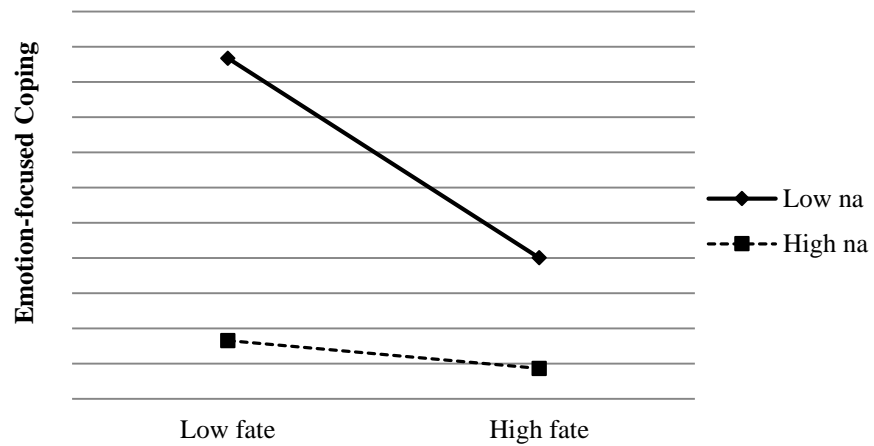


Figure 2. Interaction effect of negative affect and fate locus of control on emotion-focused coping style of drivers. For low negative affect and high negative affect

3.5.4 Regression Analysis of Traffic Locus of Control and Dispositional Affect to Avoidance Coping Style

The result of hierarchical regression analysis showed that the first step included in the model which examined the relationship between *avoidance* coping and *demographic variables* was not significant, $p = .51$.

In the second model examining effect of *T-LOC* factors on *avoidance* coping style did not yield significant results, $p = .79$.

In the third step in which *Negative* and *Positive Affect* variables were entered into the model, there were no significant changes, $p = .35$.

In the final step, interactions between *T-LOC factors and positive affect* were entered into the model and no significant changes occurred $p = .38$. When all variables were introduced into the model, there were neither

main effect of any variables on *avoidance* coping, nor interaction effect of *T-LOC* factors, as well as *dispositional affect* variables on *avoidance* coping.

When the interactions between *T-LOC factors and negative affect* were entered into the model, there was no significant change in $p = .43$. On the other hand, when all variables are entered into the model, no significant main effect or interaction effect of *T-LOC and dispositional affect* variables on *coping styles* were found.

3.5.5 Regression Analysis of Traffic Locus of Control and Dispositional Affect to Reappraisal Coping Style

The result of hierarchical regression analysis showed that the first step including the model examining relationship between avoidance coping and demographic variables were not significant, $p = .40$.

In the second model including *T-LOC* factors were not significant, $p = .50$.

In the second step in which *Negative and Positive Affect* variables were entered into the model, there were no significant changes, $p = .17$.

In the final step, interactions between *T-LOC factors and positive affect* were entered into the model and no significant changes were found in $p = .94$.

When interactions between *T-LOC factors and negative affect* were entered into the model, there was no significant change occurred in p

= .70, When all variables were entered into the model, there were no significant main effect or interaction effect found, even though there was significant correlation between *Negative Affect* and *Reappraisal Coping*, no significant regression was found. It might mean that there could be some confounding factor causing negative correlation between these factors.

CHAPTER 4

DISCUSSION

The main purpose of the present study was to examine the relationship between traffic locus of control and driver coping styles, and the moderating role of dispositional affect of drivers. In the previous studies, driver's coping styles were studied in relation to different variables. However, to the best of our knowledge, there is no study examining the relationship between traffic locus of control, coping styles of drivers and dispositional affect variables altogether. Thus, the current study is the first to relate these variables and aims to improve the understanding in of the extent to which personality factors, which are traffic locus of control and dispositional affect, determine the style of coping with traffic-related stress and the moderating role of dispositional affect on relationship between traffic locus of control and driver coping styles.

In the discussion chapter of the study, firstly, findings are explained and discussed. Secondly, critical remarks of the study and concerns for future studies are suggested. Finally, conclusions are made.

4.1. Discussion of Factor Analysis of Driver Coping Questionnaire

Factor analysis of Driver Coping Questionnaire was analyzed Principle component analysis (PCA) with Varimax rotation. According to analysis, factor structure in the current study revealed a very close pattern to the original factor structure. However, there are some differences from the original study.

Firstly, only one item (Stayed detached or distanced from the situation) was not loaded into any factor.

Secondly, some items were not loaded into the same factor as suggested in the original factor structure. Task-focused coping items merged with one emotion-focused coping item (Thought about the consequences of having an accident) and three reappraisal coping items (Felt that I was becoming a more experienced driver; Looked on the drive as a useful experience; Learnt from my mistakes) into the same factor. Items related to improvements as driver and learning processes were considered as the task-focused thoughts. In the original study, task-focused coping items referred to the behaviors, rather than thoughts. In the current sample population, behaviors related to safe driving were seen as the same coping style with the positive and improvement related thoughts about driving.

Thirdly, another factor consisted of four reappraisal coping items (Tried to gain something worthwhile from the drive; Showed other drivers I

was in control of the situations; Felt I was learning from how to cope with stress; Thoughts about benefit I would get from making the journey), two avoidance coping items (Cheered myself up by thinking about things unrelated to the drive; Thought about good times I had) and finally, one confrontive coping item (Tried to make other drivers more aware of me by driving close behind them). These items were related to focusing on gaining something from the driving to relieve the stress.

Finally, other three factors consisted of items corresponded to the same factor in the original study. 6 items of confrontive coping were gathered in the same factor, 6 items of emotion-focused coping were gathered in another factor and 4 avoidance coping items were gathered in another factor, as same with suggested in the original factor structure of the scale.

4.2. Discussion of Bivariate Correlational Analysis

The bivariate correlational analysis was conducted to examine the relationship between demographic variables, coping styles, traffic locus of control factors and dispositional affect variables. According to the results, age and number of offenses drivers were fined in the last three years are found to be positively correlated with emotion-focused coping style. Older drivers are shown to use the emotion-focused coping style more than younger drivers. As drivers get older, their mental orientation could be more emotion-focused. The reason why emotion-focused coping in traffic

is considered as maladaptive may be due to its distractive function. When drivers focus on their emotions, try to manage their feelings, they can easily be distracted from driving, therefore cannot take safety cautions. Hence, this may lead them to make mistakes or errors. The positive relationship between the amount of tickets drivers received and emotion-focused coping style may be the result of error behavior of drivers due to mental distraction.

Regarding bivariate correlation analysis of variables, positive affect was found positively correlated to confrontive coping style. This relationship may be explained via the motivational relation of both variables. Positive affect gives individuals perception of a chance of mastery or gain (Folkman & Moskowitz, 2000). High positive affect individuals seek a way to control and change the stressful situations in their favor. On the other hand, confrontive coping style is the way to cope with stress by standing up to other drivers, trying to control and change the stressful environment (Matthews, 2002). This shared motivation related to each variable may cause the significant correlational relationship. Finally, negative affect was found as negatively correlated to reappraisal coping style. In other words, when drivers are more fearful, more pessimistic in the trait, they are less likely to see stressful situations in a positive and optimistic manner.

4.3. Discussion of Hierarchical Regression Analysis

4.3.1. Discussion of Relationship between Confrontive Coping Style and Positive Affect

Regarding previous studies, Confrontive coping was found to be related to negative affect (Machin & Hoare, 2008). On the contrary, the Positive Affect of drivers was found as positively related to the Confrontive coping style of driver. Drivers who are more enthusiastic and more active reported adopting a more Confrontive coping style in stressful situations. Both confrontive coping style and positive affect characteristic have a common motive, which is the manifestation or possibility of mastery and gain (Matthews, 1996; Folkman & Moskowitz, 2000). Drivers with high positive affect tend to stand for their own needs, take more risks, show more aggressive behavior because they want to control the situation and change the situation itself. For example, they increase their speed to go far from the situation that makes them stressful, or they try to change other drivers behavior aggressively such as by honking, yelling, or tailgating. These all include the demonstration of mastery or control over the situation, which is mutual motive in both positive affect and confrontive coping style.

4.3.2. Discussion on Moderator Role of Negative Affect on Relationship between Task-Focused Coping Style and Self Locus of Control

The first moderation effect of dispositional affect characteristics on the relationship between traffic locus of control and driver coping styles was found for Task-focused coping style. Negative Affect was found as moderating the relationship between Self locus of control and Task-focused coping style. Self locus of control has a stronger impact on Task-focused coping style when NA of drivers was low. This result can be interpreted as that among drivers with relaxed, calmer, serene mood, belief of having personal control over accidents make drivers more focused on safe driving, planning effective actions. According to the study of Özkan and Lajunen (2005), the Self locus of control was related to aberrant driver behavior for young drivers (also see Holland, Geragthy & Shah, 2010). However, the current study shows that when dispositional affect characteristics are taken in consideration, the affective trait as calmness, serenity and relaxed is the key factor to alter the relationship between Self locus of control and Task-focused coping style. In fact, drivers may focus more on driving, put more emphasis on their safety in stressful situations when they consider the causes of accidents as their own responsibility.

4.3.3. Discussion on Moderator Role of Negative Affect on Relationship between Emotion-Focused Coping Style and Fate Locus of Control

The second moderation effect of dispositional affect characteristics on the relationship between traffic locus of control and driver coping styles was found for the emotion-focused coping style. Negative affect was found to be the moderator of the relationship between fate dimension of traffic locus of control and emotion-focused coping. Among drivers with low negative affect, attributing the causes of accidents to fate or luck decreases the likelihood of coping with stress by focusing on emotions, trying to manage their feelings. Drivers who think that fate or luck is responsible for accidents might believe that they cannot do anything to prevent accidents since fate and luck include acceptance and not accusing other drivers and physical conditions of traffic. However, if the driver is with high negative affect, this relationship disappears. High negative affect might make drivers more susceptible to stressful situations, and easily uplifts negative emotions which drivers try to manage, and shift focus from driving, regardless of their locus of control.

4.4. Contributions

The findings revealed that traffic locus of control variables and dispositional affect have effects on drivers' coping styles.

There are many contributions of the current study to driver stress literature. Coping with stress is a fundamental issue in the stress-inducing situation such as traffic since maladaptive coping styles result in performance impairment and subjective stress symptoms (Matthews et al., 2002). To the best of our knowledge, studies about coping with stress based on Matthews' transactional model of driver stress among drivers are not examined in Turkey.

Concerning the relationship between locus of control and safety behaviors of drivers, previous studies show that internal locus of control leads young drivers to risky driving (Mognon & Santos, 2017). The current study found that for young drivers with low negative affect, the self locus of control is positively associated with problem-focused coping. Which means young drivers with high self locus of control and low negative affect are more careful and safe drivers in stressful traffic conditions. So, the relationship between locus of control and safe behaviors in traffic is not always negatively associated, some personality factors might change the directions of this relationship.

Moreover, external locus of control was found as negatively related to inefficient coping style, when drivers' NA was low. Believing that fate is responsible for accidents might have an effect on regulating emotions for the driver. It may prevent emotions to provoke easily. Thus, drivers do not need to make an effort to manage them. They might have more easily focused on driving.

4.5. Critical Remarks and Suggestions for Future Studies

Besides the contributions to the literature, the current study has many shortcomings. Firstly, the current study mostly includes young drivers who are majorly considered as inexperienced drivers, they lack the experience from different problems in traffic. Thus, appraisal of stressful situations during driving can differ according to driver's age and experience. Future studies should recruit drivers from different ages which would be more representative of the population.

Secondly, most of the drivers in the study are recruited from the same university. Hence, there is a high tendency for behaviors, perceptions, experiences of participants to be alike due to sharing similar social environments. This might limit the generalizability of the findings. In the future studies, drivers with different social environments, jobs, and backgrounds should be recruited.

Thirdly, previous studies examine the relationship between state affect and coping styles of drivers. State affect in the stressful situation may be very different from people's dispositional affect characteristics. In different situations, people experience different affective states, which could be more strongly associated with their behavior or cognitive process than their dispositional affect. Examining the relationship between both state and dispositional affect and driver's coping styles could provide a clearer understanding. Future studies should consider to investigate it.

4.6. Conclusions

Traffic is a very demanding and complex environment. Thus, drivers many often experience stressful situations. Their coping methods with the stress in traffic conditions are among the fundamental issues of safe driving since this coping precedes the performance outcomes and subjective stress symptoms of drivers. According to Matthews et al (2002), personality factors are important predictors of coping styles of drivers. In both general stress studies and driver stress studies, the role of generalized belief of control on coping with stress is emphasized. The belief of individuals about the causes of a stressful event determines their choice of coping with it. The other personality factor, dispositional affect, is another important method for people while coping with stress. The affect which is mentioned as affecting the appraisal of the situation, in turn, determines the ways to cope with the situation. In the current study, the relationship between locus of control and coping with driver stress and to what extent the levels of each dispositional affect characteristic has an influence on this relationship were examined.

Results showed that negative affect was the only moderator factor influencing the relationship between locus of control and coping styles of drivers. The investigations of the role of dispositional affect on driver stress should be extended since limited findings were found in the literature.

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APPENDICES

A: Demographic Information Form

1. Yaşınız: _____
2. Cinsiyet: Kadın _____ Erkek _____
3. Eğitim durumunuz:
İlkokul mezunu _____
Ortaokul mezunu _____
Lise mezunu _____
Önlisans mezunu _____
Lisans mezunu _____
Yüksek lisans mezunu _____
Doktora mezunu _____
4. Ne kadar süredir ehliyet sahibisiniz? _____ yıl
5. Geçen yıl yaklaşık olarak toplam kaç km kullandınız? _____ km
6. Bugüne kadar yaklaşık olarak toplam kaç km araç kullandınız?
_____ km
7. Son üç yıl içerisinde küçük ya da büyüklüğüne bakmazsınız, nedeni ne olursa olsun, başınızdan geçen kaza sayısı kaçtır? _____
 - a) Bu kazaların kaç tanesinde hatalı taraftınız? _____
 - b) Bu kazaların kaç tanesi aktif (sizin bir araca yayaya veya nesneye çarptığınız kazalar) kazaydı? _____
 - c) Bu kazaların kaç tanesi yaralanma veya can kaybıyla sonuçlandı?

8. Son üç yıl içerisinde, aşağıda belirtilen trafik cezalarını kaç kere aldığınızı belirtiniz.
 - a) Yanlış park etme _____
 - b) Hatalı sollama _____
 - c) Aşırı hız _____
 - d) Kırmızı ışıkta geçme _____
 - e) Alkollü araç kullanma _____
 - f) Diğer (eksik ekipman, kırık far vb.) _____

B: Driver Coping Questionnaire

Bu sorular sizin sürüş sırasında zorlu, stresli veya sinir bozucu durumlarla nasıl başa çıktığınızla alakalı sorulardır. Geçen sene içerisinde araç sürerken yoğun stres altında olduğunuz durumları düşünün; örneğin, neredeyse bir trafik kazası geçirdiğiniz veya trafik sıkışıklığında kaldığınız veya yoğun trafik ve kötü görüş mesafesi altında uzun süre araç kullandığınız bir zamanı. Geçen sene içerisindeki sürüş deneyimlerinizi düşündüğünüzde araç kullanmanın zorlu, stresli veya sinir bozucu olduğu zamanlarda aşağıdaki aktiviteleri ne kadar sıklıkla gerçekleştirdiğinizi, her sorunun sağında bulunan 0 ile 5 arasındaki numaralardan birini YUVARLAK İÇERİSİNE ALARAK belirtiniz.

1. Risk alarak veya hızlı araç sürerek içimi boşalttım.	0	1	2	3	4	5
2. Sürüş ile alakası olmayan şeyler düşünerek kendimi neşelendirdim.	0	1	2	3	4	5
3. Olaya mesafeli veya uzak durdum.	0	1	2	3	4	5
4. Diğer sürücülerin beni daha iyi fark edebilmeleri için, arkalarından takip ederken arada kısa mesafe bırakarak sürdürdüm.	0	1	2	3	4	5
5. Daha kendinden emin ve cürekâr bir sürücü olmayı diledim.	0	1	2	3	4	5
6. Araç kullanmakla ilgili duygularımı görmezden geldim.	0	1	2	3	4	5
7. Dikkatsizce veya fevri hareketlerden kaçındığımdan emin oldum.	0	1	2	3	4	5
8. Diğer sürücülere haklarında ne düşündüğümü gösterdim.	0	1	2	3	4	5
9. Aracımı iddialı veya öfkeli sürdürdüm.	0	1	2	3	4	5
10. O anda araç kullanırken harcadığım emeğe değer bir şey elde etmeye çalıştım.	0	1	2	3	4	5
11. Diğer sürücülere durumun kontrolümün altında olduğunu gösterdim.	0	1	2	3	4	5
12. Aracımı güveni bir şekilde sürebilmek için ekstra çaba sarf ettim.	0	1	2	3	4	5
13. Daha deneyimli bir sürücü haline geldiğimi hissettim.	0	1	2	3	4	5
14. Sakin ve rahatlamış kalmak için çaba sarf ettim.	0	1	2	3	4	5

B. Driver Coping Questionnaire (continued)

15.	Diğer sürücülere küfür ettim (sesli veya içimden).	0	1	2	3	4	5
16.	Geçirdiğim güzel zamanları düşündüm.	0	1	2	3	4	5
17.	Araç sürmenin daha keyifli olmasını diledim.	0	1	2	3	4	5
18.	Önümdeki araç ile güvenli takip mesafesini koruduğumdan emin oldum.	0	1	2	3	4	5
19.	Hiçbir şey olmamış gibi yoluma devam ettim.	0	1	2	3	4	5
20.	Tatsız olayların gerçekleştiğine inanmayı reddettim.	0	1	2	3	4	5
21.	Kendime gerçekte hiçbir problem olmadığını söyledim.	0	1	2	3	4	5
22.	Diğer sürücülerin hatanın onlarda olduğunu bilmelerini sağladım.	0	1	2	3	4	5
23.	Kendimi daha iyi sürmediğim için eleştirdim.	0	1	2	3	4	5
24.	Bir kaza geçirmenin sonuçlarını düşündüm.	0	1	2	3	4	5
25.	Öfkeyle selektör yaptım veya korna çaldım.	0	1	2	3	4	5
26.	Stresle nasıl başa çıkılacağını öğrendiğimi hissettim.	0	1	2	3	4	5
27.	Zorlu bir trafik olayıyla veya kötü hava şartıyla karşılaştığımda bilerek yavaşladım.	0	1	2	3	4	5
28.	Tehlikelere karşı dikkatli olmak için özel çaba sarf ettim.	0	1	2	3	4	5
29.	Çok duygusal veya üzgün olduğum için kendimi suçladım.	0	1	2	3	4	5
30.	Tamamen bir sonraki hareketimin ne olması gerektiğini düşünmeye odaklandım.	0	1	2	3	4	5
31.	Bir sonraki hareketimin ne olması gerektiği konusunda endişeye kapıldım	0	1	2	3	4	5
32.	Sürücülüğü yararlı bir deneyim olarak gördüm.	0	1	2	3	4	5
33.	Bir sürücü olarak yetersizliklerim hakkında endişelendim.	0	1	2	3	4	5
34.	Yolculuk yapmanın bana kazandırdığı faydaları düşündüm.	0	1	2	3	4	5
35.	Hatalarımdan ders aldım.	0	1	2	3	4	5

C: Positive and Negative Affect Schedule

Aşağıda bir takım duygu ifadeleri bulunmaktadır. Lütfen her bir duyguyu genelde yaşama sıklığınızı, yan taraftaki dereceleme ölçeğinde belirleyiniz.

1. İlgili	1	2	3	4	5	6	7
2. Sıkıntılı	1	2	3	4	5	6	7
3. Heyecanlı	1	2	3	4	5	6	7
4. Mutsuz	1	2	3	4	5	6	7
5. Güçlü	1	2	3	4	5	6	7
6. Suçlu	1	2	3	4	5	6	7
7. Ürkümüş	1	2	3	4	5	6	7
8. Düşmanca	1	2	3	4	5	6	7
9. Hevesli	1	2	3	4	5	6	7
10. Gururlu	1	2	3	4	5	6	7
11. Asabi	1	2	3	4	5	6	7
12. Uyanık	1	2	3	4	5	6	7
13. Utanmış	1	2	3	4	5	6	7
14. İhamlı	1	2	3	4	5	6	7
15. Sinirli	1	2	3	4	5	6	7
16. Kararlı	1	2	3	4	5	6	7
17. Dikkatli	1	2	3	4	5	6	7
18. Tedirgin	1	2	3	4	5	6	7
19. Aktif	1	2	3	4	5	6	7
20. Korkmuş	1	2	3	4	5	6	7

D: Multidimensional Traffic Locus of Control Scale

Bu bölümde, kaza yapmış araç sürücülerinin, yapmış oldukları kazalara neden olarak gösterdikleri faktörler liste halinde verilmiştir. Kendi sürüş tarzınızı düşündüğünüzde bu faktörlerin yapmış olduğunuz veya olabileceğiniz kazalardaki olası etkisini ilgili yeri karalayarak belirtiniz.

1. Trafik kazası yapıp yapmayacağım çoğunlukla araç kullanma becerilerimin yetersizliğine bağlıdır	1	2	3	4	5
2. Trafik kazası yapıp yapmayacağım çoğunlukla araç kullanırken yaptığım riskli davranışlara bağlıdır	1	2	3	4	5
3. Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin araç kullanma becerilerinin yetersizliğine bağlıdır	1	2	3	4	5
4. Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin araç kullanırken yaptığı riskli davranışlara bağlıdır	1	2	3	4	5
5. Trafik kazası yapıp yapmayacağım çoğunlukla kötü şansa (veya şanssızlığa) bağlıdır	1	2	3	4	5
6. Trafik kazası yapıp yapmayacağım çoğunlukla bozuk ve tehlikeli yollara bağlıdır	1	2	3	4	5
7. Trafik kazası yapıp yapmayacağım çoğunlukla aşırı sürat yapmama bağlıdır.	1	2	3	4	5
8. Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin aşırı sürat yapmasına bağlıdır	1	2	3	4	5
9. Trafik kazası yapıp yapmayacağım çoğunlukla öndeki araçları çok yakından takip edip etmeme bağlıdır	1	2	3	4	5
10. Trafik kazası yapıp yapmayacağım çoğunlukla diğer araç sürücülerinin kullandığım aracı yakın takip etmelerine bağlıdır	1	2	3	4	5
11. Trafik kazası yapıp yapmayacağım çoğunlukla kadere bağlıdır	1	2	3	4	5
12. Trafik kazası yapıp yapmayacağım çoğunlukla kötü hava ve aydınlatma koşullarına bağlıdır	1	2	3	4	5

D: Multidimensional Traffic Locus of Control (continued)

13. Trafik kazası yapıp yapmayacağım çoğunlukla araçtaki mekanik bir arızaya bağlıdır	1	2	3	4	5
14. Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin alkollü araç kullanmasına bağlıdır	1	2	3	4	5
15. Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin tehlikeli bir şekilde hatalı sollama yapmasına bağlıdır	1	2	3	4	5
16. Trafik kazası yapıp yapmayacağım çoğunlukla tehlikeli bir şekilde hatalı sollama yapmama bağlıdır	1	2	3	4	5
17. Trafik kazası yapıp yapmayacağım çoğunlukla tesadüflere bağlıdır	1	2	3	4	5

E: METU Ethical Committee Approval

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



DUMLUPINAR BULVARI 06800
ÇANKAYA ANKARA/TURKEY
T: +90 312 210 22 91
F: +90 312 210 79 59
ueam@metu.edu.tr
www.ueam.metu.edu.tr
Sayı: 286208167-2017

05 NİSAN 2017

Konu: Değerlendirme Sonucu


Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

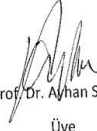
Sayın Yrd. Doç. Dr. Bahar ÖZ;


Danışmanlığını yaptığımız yüksek lisans öğrencisi Burcu ARSLAN' ın "*Kontrol odağı ve sürücülerin stresle başa çıkması yöntemleri arasındaki ilişki: Genel duygu durumunun düzenleyici etkisini incelemek*" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay 2017-SOS-067 protokol numarası ile 15.04.2017 – 30.05.2018 tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

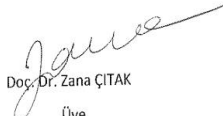

Prof. Dr. Ş. Halil TURAN


Başkan V



Prof. Dr. Ayhan SOL
Üye


Prof. Dr. Ayhan Gürbüz DEMİR
Üye


Doç. Dr. Yaşar KONDAKÇI
Üye


Doç. Dr. Zana ÇITAK
Üye


Yrd. Doç. Dr. Pınar KAYGAN
Üye


Yrd. Doç. Dr. Emre SELÇUK
Üye

F: Turkish Summary / Türkçe Özet

Trafik gibi zorlu ve karışık bir sistem çoğunlukla yol kullanıcılarında stres yarattığı için, trafikte stresle başa çıkma şekli önemli bir problemdir. Stresle başa çıkma davranışları stresli duruma karşı davranışsal ya da bilişsel şekillerde verilen tepkiler olarak görülebilir. Trafikteki stresle başa çıkma davranışının, sürücülerin performansları ve stres kaynaklı fizyolojik ya da duygusal belirtileriyle alakalı olduğu görülmüştür (Matthews, 2002). Sonuç olarak, bu durum sürücü güvenliliğini etkilemektedir (Gulian, Matthews, Glendon, Davies, Debney, 1989; Emo, Matthews & Funke, 2016; Matthews, Desmond, Joyner, Carcary, Gilliland, 1997; Kontogiannis, 2006; Matthews, 2002). Sürücü stres modeli ilk kez Matthews (2002) tarafından geliştirilmiş olsa da, birçok sürücü stresi çalışması Lazarus ve Folkman'ın stres modeli (1984) üzerinden çalışmıştır.

Lazarus ve Folkman'ın (1984) modeline göre, stres süreci ilk olarak kişilerin bir durumu bilişsel olarak değerlendirmesiyle başlar. Birincil değerlendirmede, kişi durumun zararlı olup olmadığını, tehdit edici mi yoksa ilgi çekici mi olduğunu sorgular. İkincil değerlendirmede ise, kişi durumla başa çıkmak için gerekli kaynaklarını değerlendirir. Stresle başa çıkma çabası ikinci değerlendirme sonunda ortaya konur. Lazarus ve Folkman (1984) iki tür başa çıkma stili tanımlamıştır. Duygusal odaklı başa çıkma stili, kişilerin stresli bir olay karşısında duygularını kontrol etmeye,

düzenlemeye çalışarak stresten kurtulma çabasını gösterirken, problem odaklı başa çıkma stili, kişilerin stresli durumun üzerine gidip, durumu değiştirmeye çalışmaya yönelik çabalarını gösterir.

Matthews (2002), etkileşimsel sürücü stres modelini, Lazarus ve Folkman'ın (1984) stres modelini temel alarak geliştirmiştir. Etkileşimsel sürücü stres modeline göre, kişilik özellikleri ve çevresel faktörlerin etkileşimi bilişsel stres sürecine götürür. Bu süreç, yukarıdaki modelde olduğu gibi, durumla ilgili değerlendirmeleri ve başa çıkma çabasını içerir. Bu sürecin çıktısı ise sürücü performansının zarar görmesi ya da desteklenmesi olabilir. Matthews'a (1991) göre, sürücülere özel beş farklı başa çıkma şekli tanımlanmıştır. Bunlar; yüzleşmeci başa çıkma, görev odaklı başa çıkma, duygu odaklı başa çıkma, kaçınmacı başa çıkma ve değerlendirici başa çıkma stilleri olarak adlandırılmıştır. Yüzleşmeci başa çıkma stili, sürücülerin stresli bir olay karşısında riskli davranış sergileyerek kendini rahatlatma ya da diğer sürücülere karşı tehditkâr davranarak kendini rahatlatmaya, durumu çözmeye yönelik davranışlarını içermektedir. Görev odaklı başa çıkma, stresli bir durum karşısında sürücünün sürüş güvenliğini korumaya çalışma, daha dikkatli olup durumun verebileceği zararı ortadan kaldırma çabasını içermektedir. Duygu odaklı başa çıkma, sürücünün stresli bir olay karşısında duygularına odaklanıp, onları düzenlemeye çalışarak kendini rahatlatma çabası iken; kaçınmacı başa çıkma, kişinin düşünsel olarak kendini durumdan soyutlama çabasını tanımlamaktadır. Son olarak, Değerlendirici başa çıkma, stresli bir olay karşısında sürücünün, içinde

bulunduđu durumu yeniden deęerlendirmesi, durumdan olumlu anlamlar ıkarmaya alıřarak kendini rahatlatmaya alıřması olarak tanımlanabilir.

Matthews bařa ıkma stillerini uyumlu davranıř olup olmamasını gre ayırıřtırmıřtır. rneęin; yzleřmeci bařa ıkma, duygu odaklı bařa ıkma ve kaınmacı bařa ıkma davranıřları, srcnn dikkatini güvenli srřten uzaklařtırdıęı iin uyumsuz olarak nitelendirir. Birok alıřma sonucu da bu durumu desteklemektedir. Yzleřmeci bařa ıkma stili, riskli src davranıřları, hatalar ve ihlallerle iliřkili olarak bulunmuřtur (Emo, Matthews & Funke, 2016; Matthews et al, 1997). Benzer Őekilde, duygu odaklı bařa ıkma ve kaınmacı bařa ıkma stilleri de hatalar, yaralanmalı kazalar ve ihmallerle iliřkili bulunmuřtur (Kontogiannis, 2006; Matthews et al, 1997; Shamo-Nir & Koslowsky, 2010). Grev odaklı bařa ıkma ve deęerlendirici bařa ıkma stilleri ise, srcnn dikkatini srř grevinde tuttuęu iin uyumlu olarak nitelendirilmiřtir. Yapılan alıřmalarda da; grev odaklı bařa ıkma stili, daha az ihlal ve hız yapma davranıřı ile deęerlendirici bařa ıkma stili de, güvenli srře nem verme ve srř sonunda pozitif duygulanım ile iliřki bulunmuřtur.

Src stresle bařa ıkma davranıřı birok demografik zellięe ya da kiřilik zellięine gre deęiřiklik gstermektedir. rneęin; gen srclerin yařlı srclere gre daha fazla duygu odaklı bařa ıkma stili kullandıęı grlmřtr (Gulian et al, 1990; Lotfi et al, 2017). Erkek srclerin ise kadın srclere gre daha fazla yzleřmeci bařa ıkma stili kullandıęı grlmřtr (Kontogiannis, 2006). Kiřilik zellerine bakacak

olursak da, iki kişilik özelliği stresle başa çıkma çalışmalarında öne çıkmaktadır. Bunlar, kontrol odağı özellikleri ve negatif-pozitif duygu durumlarıdır. Çalışmalara göre, olayların sonuçlarının kimin kontrolünde olduğu algısı stres sürecini etkileyen en önemli faktörlerden biri. Stresle başa çıkma şekillerinde de kontrol algısının başa çıkmanın etkililiği üzerindeki etkisi bulunmuştur. Örneğin, problem odaklı başa çıkma stili, kişinin durum üzerinde kontrolü varsa etkin bulunmuştur. Diğer bir taraftan, duygu odaklı başa çıkma stili ise eğer kişinin durum üzerinde kontrolü yoksa en etkili başa çıkma stili olarak görülmüştür (Lazarus & Folkman, 1984). Aynı zamanda, eğer durum kesinlikle kontrol edilemez bir durum ise, duygu odaklı başa çıkma stili kişinin strese bağlı gelişmesini arttırdığı görülmüştür. Negatif –pozitif duygu durumu özelliği ise, yine stresli durumlarda kişilerin başa çıkma şekilleri ile ilişkili olduğu görülmüştür. Duygu durum özelliğinin stres sürecinde kişinin durum değerlendirmesini etkilediği görülmüştür. (Folkman & Moskowitz, 2000).

Bu çalışma, bu iki faktörün sürücülerin stresle başa çıkma şekilleri üzerindeki etkisine odaklanmaktadır. Bunun yanında, negatif-pozitif duygu durumunun, kontrol odağı ve stresle başa çıkma davranışı arasındaki ilişkide düzenleyici bir rolü olabileceği düşünülmektedir.

Rotter'a (1966) göre, kontrol odağı, insanların bir olayın sonucunun üzerinde kimin kontrolü olduğuna dair inancını gösterir. İki farklı kontrol odağı tanımlamıştır. İçsel kontrol odağı, kişilerin olayların sonucundaki kontrolü kendi davranışlarına ya da yeteneklerine bağlarken, dışsal kontrol

odağı, kişilerin olayların sonucundaki kontrolü dışsal etkilere bağlar, örneğin, kader, şans, güç sahibi insanlar vb. Rotter'ın kavramları temel alınarak, sürücülere özgü kontrol odağı kavramları geliştirilmiştir. Montag ve Comrey'in (1987) çalışmasında, sürüş içsel kontrol odağı ve sürüş dışsal kontrol odağı, trafik gibi karmaşık bir sistemdeki davranışları daha iyi açıklayacağı öne sürülmüştür. Bu iki çalışmanın en önemli özelliği, kontrol odağı özelliğinin kişide doğuştan gelen bir özellik olarak görülmesidir. Buna karşı olarak, Özkan ve Lajunen (2005)'te kontrol odağının kalıtsal olduğundansa öğrenilen ve değişebilen bir şey olduğunu öne sürmüştür. Bu görüşe bağlı olarak, çok boyutlu trafik kontrol odağı kavramları geliştirmişlerdir. Çok boyutlu trafik kontrol odağına göre, dört tip kontrol odağı tanımlanmıştır. Bunlar; kendilik kontrol odağı, diğer sürücüler kontrol odağı, çevre-araç kontrol odağı ve kader kontrol odağıdır. Kendilik kontrol odağı, sürücülerin kazaların sebebini kendi davranışlarına ya da yeteneklerine atfetmesiyken; diğer sürücüler kontrol odağı, sürücülerin kazaların sebebinin diğer sürücülerin davranış veya yeteneklerine atfetmesidir. Çevre-araç kontrol odağı kazaların sebeplerini araçla ve ya çevresel sebeplere, kader kontrol odağı ise kader ve şans gibi sebeplere atfetmektir. Bu çok boyutlu trafik kontrol odağı kavramlarının sürücülerin stresle başa çıkma stilleri ile arasındaki ilişki çalışılmamıştır. Fakat genel olarak kontrol odağı ve stresle başa çıkma çalışmaları literatürde önemli yere sahiptir. Genel olarak bu çalışmalara göre; içsel kontrol odağına sahip kişilerin, stresli bir durumla karşısında çözüm odaklı, uyumlu, alternatif

yollara götüren başa çıkma stillerine yönelimli oldukları bulunmuştur (Strickland, 1978; Giakanos, 2002; Zhang et al, 2014). Diğer bir taraftan, dışsal kontrol odağı ise kişileri, duygu odaklı başa çıkma alkol kullanma gibi yetersiz ve zayıf başa çıkma stillerine yönlendirdiği bulunmuştur (Giakanos, 2002; Brosschot, & Gebhardt, Godaert, 1994).

Sürücülerin stresle başa çıkması stilleri ile ilişkili bulunan diğer bir faktör ise, sürücülerin pozitif-negatif duygu durumlarıdır. Watson, Clark ve Tellegen'a (1988)'e göre, kişilerin genel duygu durumları ikiye ayrılır; pozitif ve negatif duygu durumu. Bu iki durum, birbiriyle zıt olmasından daha çok, aynı anda aynı kişi için tanımlanabilir. Bu iki durumun farklı seviyeleri, kişilerin farklı duygu hallerine işaret eder; örneğin; yüksek pozitif duygu durumu genel olarak, kişilerin sürekli aktif, heyecanlı, dikkatli olma durumu iken, yüksek negatif duygu durumu kişilerin genel olarak kaygılı, endişeli ve memnuniyetsiz gibi negatif durum içinde olması olarak tanımlanır. Düşük pozitif duygu durumu, kişilerin genel olarak zinde olmaması, depresyona yatkınlığı olarak görülürken, düşük negatif duygu durumu kişilerin genel olarak sakin, huzurlu ve rahat bir yapıda olduğunu gösterir. Çalışmalar gösteriyor ki, pozitif duygu durumu, stresli durumlarla karşısında kişiyi koruyucu bir fonksiyon gösterir ve kişiyi problemi yaratıcı ve geliştirici yöntemlerle çözmesine yönlendirir (Bilings, Folkman, Acree & Moskowitz, 2000; Greenglass& Fiksenbaum, 2009; Fredickson & Joiner, 2002). Aynı zamanda Folkman ve Moskowitz (2000) yaptığı incelemeye göre, pozitif duygu durumu kişilere, stresli bir olayla

karşı karşıya kaldıklarında durum üzerinde kontrolleri olduğu hissini verir. Negatif duygu durumu ise stresli bir durumla karşılaşıldığında kişileri yetersiz ya da zararlı baş etme stillerine yönlendirdiği görülmüştür (Clark & Watson, 1986). Sürücü stresi çalışmalarında da, benzer sonuçlar bulunmuştur. Otobüs şoförleri ile yapılan bir çalışmada, yüzleşmecî başa çıkma stiline günün sonunda sürücü negatif duygu durumu ile alakalı olduğu; değerlendirmeci başa çıkma yönteminin ise pozitif duygu durumu ile ilişkili olduğu bulunmuştur (Machin & Hoare, 2008).

Genel olarak alanyazınına bakıldığı zaman, uyumlu başa çıkma şekillerinin içsel kontrol odağı ve pozitif duygu durumu ile alakalı olduğu, uyumsuz başa çıkma şekillerinin ise dışsal kontrol odağı ve negatif duygu durumu ile alakalı olduğu bulunmuştur. Başa çıkma şekilleri incelendiği zaman, içerlerinde genel duygu durumları ile aynı özellikleri barındıkları görülebilir. Örneğin; yüzleşmecî başa çıkma şekli ve duygu odaklı başa çıkma şekli, sınırlı ve endişeli olmak gibi duygu durumunu içerisinde barındırdığı görülür. Diğer taraftan, görev odaklı başa çıkma ve değerlendirmeci başa çıkma şekli, dikkatli, iyimser, odaklı olmak gibi pozitif duygu durumlarını içinde barındırdığı söylenebilir. Bu noktada, kişinin duygu durumunun kontrol odağı ve stresle başa çıkma arasındaki ilişkiyi etkileyebileceğini bekleyebiliriz. Çalışmanın amacı, trafik kontrol odağı ile sürücülerin stresle başa çıkma şekilleri arasındaki ilişkiyi incelemektir. Bunun yanında, negatif-pozitif duygu durumunun, bu ilişkideki düzenleyici etkisi araştırılacaktır.

Yaşları 19-64 arasında değişen 344 sürücü çalışmaya katılmıştır. Bu katılımcıların %45.1i kadın, %54,9'u erkeklerden oluşmaktadır. Ortalama ehliyete sahip olma süresi 4.87 yıl ve sürücü olarak araçla yolculuk edilen ortalama mesafe 85661 km olarak rapor edilmiştir. Sürücülerin %34,3'ü daha önce hiç kaza yapmamıştır. Rapor edilen kazaların ise %98'inde herhangi bir yaralanma ya da ölüm olmadığı rapor edilmiştir. Sürücülere, demografik bilgi formu, sürücü stresle başa çıkma ölçeği, pozitif-negatif duygu ölçeği ve çok boyutlu trafik kontrol odağı ölçeği sırasıyla verilmiştir. Demografik bilgi formunda, katılımcılara yaş, cinsiyet, eğitim durumu, toplam sürüş yapılan mesafe, kaç yıldır ehliyet sahibi oldukları, kaza ve ceza geçmişleri hakkında sorular sorulmuştur. Sürücü Stresle başa çıkma anketi ise Matthews ve arkadaşları tarafından geliştirilmiştir (1996). Ölçek, 5 faktörü gösteren 35 madde içermektedir. Bu ölçekte sürücülere, sürüş sırasında stresle bir durumla karşılaştıklarında nasıl tepki verdikleri sorulmuştur. 5'li Likert tipi üzerinden belirtilen tepkileri ne kadar sıklıkla verdiklerini işaretlemeleri istenmiştir. Ölçekte değerlendirilen 5 faktör, yüzleşmecî başa çıkma, görev odaklı başa çıkma, duygu odaklı başa çıkma, değerlendircî başa çıkma ve kaçınmacı başa çıkma stilleridir. Çok boyutlu trafik kontrol odağı ölçeği ise Özkan ve Lajunen (2005) tarafından geliştirilmiştir. Bu ölçekte, sürücülerin kazaların sebeplerini neye atfettikleri ölçülmeye çalışılmıştır. Ölçek, toplamda 17 madde ve 4 alt faktör içermektedir. Bu faktörleri, benlik kontrol odağı, sürücülerin kazaların sebeplerini kendi davranışları ya da yeteneklerine atfetmesi; diğer

sürücüler kontrol odağı, sürücülerin kazaların sonuçlarını diğer sürücülere atfetmesi; çevre-araç kontrol odağı, sürücülerin kazaların sebeplerini çevresel ya da araçla ilgili faktörlere atfetmesi; kader kontrol odağı, sürücülerin kazaların sebeplerini kader ya da şans faktörlerine atfetmesi oluşturur. Son olarak, pozitif-negatif duygu ölçeği ise Watson, Clark & Tellegen (1988) tarafından geliştirilmiştir. Türkçe uyarlaması ise Gençöz (2000) tarafından yapılmıştır. Bu ölçek, kişilerin günlük hayatlarındaki duygu durumlarını ölçmeye çalışmaktadır. Ölçek toplamda 20 madde içermektedir. Her bir madde bir duygu durumunu işaret eden bir sıfat içermektedir. Kişilerden kendilerine en çok uyan sıfatları, 7li Likert tipli ölçek üzerinde ne kadar uyduğuna göre işaretlemeleri istenmiştir.

Veriler, SPSS 23. Sürüm programı ile analiz edilmiştir. Öncelikle, Türkçeye ilk defa çevrildiği için sürücü stresle başa çıkma ölçeğinin faktör yapısı incelenmiştir. Daha sonra, değişkenliklerin genel özelliklerini incelemek için betimsel analiz yöntemi kullanılmıştır. Değişkenler arasındaki ilişkiyi görmek için korelasyon analizleri yapılmıştır. Daha sonra da, değişkenler arasında daha detaylı incelemek ve negatif pozitif duygu durumunun düzenleyici etkisini incelemek için çoklu hiyerarşik regresyon analizi kullanılmıştır. Son olarak da, pozitif negatif duygu durumunun düzenleyici rolünün yönünü görselleştirmek için basit eğim grafikleri çizilmiştir.

Sürücü stresle başa çıkma ölçeği, bu çalışma ile ilk defa Türkçeye çevrildiği için faktör analizi yapılmıştır. Faktör analizi, çalışmada ortaya

konan faktörlerle, orijinal faktörler arasında çok büyük bir benzerlik olduğunu göstermiştir. Yalnızca bazı maddeler kendi faktörleri dışındaki faktörlere yüklenmiştir. Araştırma sonuçlarının karşılaştırmaya imkân vermesi için, orijinal faktör yapısı çalışmada kullanılmıştır.

Korelasyon analizlerine göre, yaş ve sürücülerin son 3 yıl içinde aldıkları ceza sayılarının duygu odaklı başa çıkma stili ile pozitif ilişkili olduğu bulunmuştur. Yaş arttıkça sürücülerin daha çok duygu odaklı başa çıkma stili rapor ettiği görülmüştür. Bunun yanında, duygu odaklı başa çıkma stilinin, sürücüyü bilişsel olarak duygularına yöneltip, dikkatini dağıttığından dolayı, aldıkları cezaların sayısının artmasıyla alakalı olduğu düşünülebilir. Pozitif duygu durumu ile yüzleşmeci başa çıkma stili arasında da olumlu yönde bir ilişki görülmüştür. Pozitif duygu durumu yüksek olan kişilerin, trafikteki stresle başa çıkmak için daha çok riskli davranış sergiledikleri ya da diğer sürücülere karşı daha çok sinirli davranış sergiledikleri görülmüştür. Son olarak da, negatif duygu durumu ile değerlendirici başa çıkma arasında olumlu bir ilişki görülmüştür. Bunun da sebebi, negatif duygu durumunun, stresli bir durumda sürücünün olumsuz duygularını arttırmasından dolayı olayları pozitif bir bakış açısıyla yeniden yorumlamadan alıkoymasına olabilir.

Hiyerarşik regresyon analizlerinde, ilk adımda demografik özellikler modele eklenmiştir. Demografik özellikler bütün başa çıkma stilleri ile anlamlı ilişkide görülmemiş olsa da, literatürdeki birçok çalışma demografik özelliklerin ilişkisini göstermiştir. Bu sebeple bu özellikler

kontrol edilmek için ilk adımda eklenmiştir. İkinci adımda, bağımsız değişken olan trafik kontrol odağı faktörleri eklenmiştir. Üçüncü adımda ise düzenleyici rolü incelenecek olan genel duygu durumu faktörleri modele eklenmiştir. Son adımda da, Genel duygu durumu ile trafik kontrol odağının etkileşimi eklenmiştir. Bu etkileşim, genel duygu durumu puanları ile trafik kontrol odağı puanlarının çarpımı ile oluşturulmuştur. Negatif ve pozitif duygu durumları her bir başa çıkma stili için ayrı olarak analize alınmıştır.

Çoklu hiyerarşik analiz sonuçlarına göre, trafik kontrol odağı faktörleri ile sürücülerin stresle başa çıkma stilleri arasında ilişkiler bulunmuştur. Bunun yanında, pozitif-negatif duygu durumunun bu ilişkilerde düzenleyici rolü de görülmüştür.

Pozitif duygu durumunun yüzleşmeci başa çıkma stili ile olumlu yöndeki ilişkisi, regresyon analizlerinde de görülmüştür. Bu sonuca göre pozitif duygu durumu yüksek olan kişiler, daha çok yüzleşmeci başa çıkma stilini kullanarak stresle başa çıktıklarını belirtmiştir. Bu sonucun nedeni, her iki değişkinin de sahip olduğu ortak bir motivasyon olabilir. Folkman ve Moskowitz'in (2000) çalışmasına göre, pozitif duygu durumu kişiye olay üstünde bir kontrolü olduğu ve olaydan bir kazanç elde edebileceğine dair bir inanç verir. Bunun yanında, yüzleşmeci başa çıkma stili de stresle bir durumda durum üzerinde üstünlük kurma isteği ve kazanç sağlama motivasyonunu gösterir (Matthews, 1996). Bu ortak motivasyon, iki değişken arasındaki olumlu ilişkinin sebebi olarak görülebilir.

İlk düzenleyici etki, negatif duygu durumunun görev odaklı başa çıkma ve benlik kontrol odağı ilişkisindeki etkisi olarak görülmüştür. Negatif duygu durumu düşük olan kişilerde, benlik kontrol odağı arttıkça görev odaklı başa çıkma stiline kullanılması da artmıştır. Düşük negatif duygu durumuna sahip kişiler genel olarak, sakin, düşük derecede kaygı ve endişeli ruh haline sahip kişiler olarak düşünülür. Bu özelliğe sahip sürücüler, eğer kazaların sonuçlarını kendi yetenek ve davranışlarına atfederlerse, stresli bir durumda sürüşlerine odaklanarak ve güvenliliklerini emniyete alarak kendilerini rahatladıklarını rapor etmişlerdir. Düşük negatif duygu durumu, sürücülerde stresli bir anda negatif duyguların hızlıca artmasını ve sürücülerin bu duygular yüzünden bilişsel olarak dikkat dağınıklığı yaşamalarını engellemiş olabilir. Böylece sürücüler, kazadan ya da kötü bir sonuçtan kaçınmak için, kaza sebebi olarak kendi davranışlarını gördüklerinden, güvenli bir şekilde araçlarını sürmeye odaklanıyor olabilir.

İkinci düzenleyici etki de, yine negatif duygu durumunun duygu odaklı başa çıkma stili ile kader kontrol odağı ilişkisi üzerinde etkisidir. Negatif duygu durumu düşük olan kişilerde, kader kontrol odağı yükseldikçe daha az duygu odaklı başa çıkma stili kullanıldığı görülmüştür. Yukarıda belirtilen düşük negatif duygu durumu özelliğine sahip sürücüler, kazaların sebeplerini kader, şans gibi etmenlere atfettikçe, stresli bir durumda çok daha az duygularını kontrol etmeye ya da düzenlemeye çalışarak kendilerini rahatlattıklarını rapor etmişlerdir. Yine, düşük negatif duygu durumu sürücülerde olumsuz duyguların hızla yükselmesini ve

onlara odaklanıp sürüşten uzaklaşmalarını engelliyor olabilir. Özellikle bu sürücüler, kazaların sebeplerini şans, kader gibi etmenler olarak gördüklerinden, bu durumlardan kaçabilecek bir şey olmadıklarını, yapacakları her hangi bir şeyin bir önemi olmadığını düşünüyor olabilir. Bu durum da aynı şekilde, kişilerdeki olumsuz duyguların artmasını engelliyor olabilir. Sonuç olarak, sürücüler stresli bir durumda duygularını düzenlemeye ihtiyaç duymuyor olabilir.

Çalışmanın sürücülerin stresle başa etme stilleri ile ilgili literatüre birçok katkısı olmuştur. Öncelikle, yapılan çalışma Türk sürücü örnekleminde trafikteki stresle başa etme şekillerini gösteren ilk çalışma niteliğini taşımaktadır. Bunun yanında, trafik kontrol odağı elementlerinin sürücülerin trafikteki stresle baş etme şekilleri ile olan ilişkisini de ilk inceleyen çalışmadır. Sürücülerin, kazaların sebeplerini neye atfettikleri birçok davranışları açıklamada önemli bir yere sahip olduğu bilinmekteydi. Bu çalışma ile bu atıf özelliğinin stresli bir durumdaki davranışlarını da nasıl etkilediği gösterilmeye çalışılmıştır. Trafik kontrol odağı çalışmalarında benlik kontrol odağı özelliği, riskli davranışlarla ilişkili bulunsa da (Özkan & Lajunen, 2005), bu çalışmada düşük negatif duygu durumuna sahip kişilerde güvenliği artırıcı rolü de olduğu gösterilmiştir. Aynı şekilde, dışsal kontrol odakları çoğunlukla yetersiz veya uyumsuz başa çıkma stilleri ile ilişkili bulunsa da, kişilik özelliklerinin, bu çalışmada düşük negatifin, bu ilişkiyi tersine çevirebileceği görülmüştür.

Çalışmanın katkılarının yanında birçok önemli nokta da belirtilmelidir. Öncelikle, çalışma çoğunlukla genç sürücülerden oluşmaktadır. Yaş faktörünün analizlere kontrol değişkeni olarak eklenmesi, bu faktörün sonuçları etkilemesi engellemiştir. Yine de, ileride yapılacak çalışmalarda farklı yaş gruplarının karşılaştırılması, sonuçların genellenmesine olanak sağlayacaktır.

Sonuçların genellenmesini engelleyen diğer bir faktör de, katılımcıların aynı sosyal çevre ve benzer arka plana sahip olmalarıdır. Katılımcılar çoğunlukla aynı üniversitede okuyan öğrencilerden oluşmaktadır. Bu da, katılımcıların aynı sosyal çevre içerisinde olduğu ve aynı sosyoekonomik özelliğe sahip olduğunu göstermektedir. İlerideki çalışmaların, farklı sosyoekonomik özelliğe sahip kişilerden oluşması sonuçların daha genellenebilir olmasını ve sonuçlara daha farklı yorumlar getirilebilmesini sağlayabilir.

Sonuç olarak, sürücülerin, trafik gibi karmaşık bir sistemde, çoğunlukla stres altında olduklarından, bu stresle başa çıkma stillerinin önemi bilinmekteydi. Matthews ve arkadaşlarına göre (2000) stresle başa çıkma stili, sürücülerin performanslarını ve strese bağlı semptomlarını etkilemektedir. Geliştirdikleri sürücü stres modeline göre kişilik özellikleri, sürücülerin stresli durumları değerlendirmeleri ve başa çıkma stillerini seçmelerinde çok önemli bir yere sahiptir. Kontrol odağı özelliği sürücülerin stresli bir durumda nasıl tepki vereceklerini etkilemektedir. Bunun dışında kişilerin pozitif negatif duygu durumu ise durumu nasıl

değerlendirdikleri noktasında önemli bir yere sahiptir. Yapılan bu çalışmada, bu iki kişisel faktörlerin bu başa çıkma stilleri ile olan ilişkisi vurgulanmıştır. Sonuçlara göre, özellikle negatif duygu durumunun düzenleyici rolü bulunmuştur. Negatif duygu durumu, literatürde belirtilen, içsel kontrol odağı ile etkili başa çıkma stilleri arasındaki ilişkiyi düzenlemiştir. Eğer sürücülerin negatif duygu durumları düşükse, literatürdeki bulguların önerdiği gibi, kazaların sebebini sürücünün kendisiyle alakalı elementlere atfetmesi uyumlu başa çıkma stiline yönlendirmektedir. Fakat sürücülerin negatif duygu durumları yüksek ise, bu ilişki ortadan kalkmaktadır. Diğer bir taraftan, literatürdeki genel bulgulara karşı olarak, dışsal kontrol odağı ile uyumsuz olarak kabul edilen stresle başa çıkma stili arasındaki ilişki, düşük negatif duygu durumuna sahip sürücülerde tam tersi yönde oluşmuştur. Eğer sürücü düşük negatif duygu durumuna sahipse, kazaların sebebini dışsal sebeplere (bu çalışmada kader ve şans gibi elementlere) bağlaması, stresli bir anda duygularına odaklanıp sürüş güvenliğini tehlikeye atmasını engellemektedir.

Bu sonuçlar göz önüne alınarak, sürücülerde stresle başa çıkma stillerine olan eğilimleri daha net anlaşılabilir. Ayrıca bu çalışma, sürücülerde stresle başa çıkma eğitimleri ve ya araştırmaları yapılacakken kullanılabilir bir kaynak niteliği taşımaktadır.

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Adı / Name : Burcu
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