

RELIGIOUSNESS, CONSERVATISM AND THEIR RELATIONSHIP WITH  
TRAFFIC BEHAVIOUR

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ZÜMRÜT YILDIRIM

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Prof. Dr. Sencer Ayata  
Director

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

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Prof. Dr. Nebi 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.

---

Assoc. Prof. Dr. Timo Lajunen  
Supervisor

**Examining Committee Members**

Assoc. Prof. Dr. Timo Lajunen (METU, PSY) \_\_\_\_\_

Assoc. Prof. Dr. Öznur Özdoğan (A.U., DIV) \_\_\_\_\_

Dr. Türker Özkan (METU, PSY) \_\_\_\_\_

I hereby declare that, all information in this document has been obtained and presented in accordance with the 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: Zümrüt Yıldırım

Signature:

## **ABSTRACT**

### **RELIGIOUSNESS, CONSERVATISM AND THEIR RELATIONSHIP WITH TRAFFIC BEHAVIOUR**

Yıldırım, Zümrüt

M.S, Department of Psychology

Supervisor: Assoc. Prof. Dr. Timo Lajunen

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The present study investigated the relationship between religiousness, conservatism and traffic behaviour. It was shown that, intrinsic religious orientation significantly predicted ordinary violations of both the drivers and the pedestrians. Religiousness seems to have a positive effect by orienting the individual to obey the rules and to refrain from risk taking behaviour. Moreover, components of conservatism (conservation of values and resistance to change) were found to affect the aggressive violations and the positive behaviours of the drivers. While conservation of values decreased aggressive violations of the drivers, it increased the positive behaviours. On the contrary, resistance to change decreased positive behaviours and increased aggressive violations. These contrary results were accounted for by using Wilson's (1973) explanations of these dimensions. To conclude, variables distal to traffic context were shown to influence traffic behaviour differentially.

Keywords: Religiousness, conservatism, violation, driver, pedestrian

## ÖZ

### DİNDARLIK, MUHAFAZAKARLIK VE BU DEĞİŞKENLERİN TRAFİK DAVRANIŞI İLE İLİŞKİSİ

Yıldırım, Zümrüt

Yüksek Lisans, Psikoloji Bölümü

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Bu çalışma; dindarlık, muhafazakarlık ve trafik davranışı arasındaki ilişkiyi incelemektedir. Bulgular gösteriyor ki, içsel dindarlık oryantasyonu, hem yayaların hem de sürücülerin sıradan ihlal davranışlarını anlamlı bir şekilde yordamaktadır. Dindarlık, kişiyi kurallara uymaya yönlendirerek ve risk davranışlarından kaçınmasını sağlayarak olumlu bir etki göstermiştir. Bunun yanında, muhafazakarlık öğelerinin (değişime direnme ve değerleri koruma) sürücülerin agresif ihlal davranışlarını ve olumlu davranışlarını yordadığı bulunmuştur. Değerleri koruma, sürücülerin agresif ihlallerini azaltırken, olumlu davranışlarını artırmıştır. Bunun aksine, değişime direnme olumlu davranışları azaltırken, agresif ihlalleri artırmıştır. Bu zıt bulgular Wilson (1973)'un açıklamaları kullanılarak değerlendirilmiştir. Kısacası, trafik ortamına uzak olan değişkenlerin trafik davranışını birbirinden farklı bir şekilde nasıl etkilediği gösterilmiştir.

Anahtar kelimeler: Dindarlık, muhafazakarlık, ihlal, sürücü, yaya

To my lovely family

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Social Values and Behaviours

Culture can be defined as the collective programming of the mind which differentiates one group of people from another (Hofstede, 2001). It includes a social order in which definite and fixed behaviour patterns take place, providing people with codes of behaviour and definitions of the situations that cover all phases of life (Reuter, 1923). In other words, the group the individual is tied with defines the social reality and prescribes appropriate reactions (Miller, 1996).

Values, part of this social order, are the desirable guiding principles, shaping the way social actors select actions, evaluate people and events, and explain their actions and evaluations (Schwartz, 1992; Schwartz, 1999). Members of the society are socialized to accept shared social values (Schwartz, 1999) which can be evaluated both at the societal and individual level (e.g. Schwartz, 1994; Schwartz, 1999; Schwartz, 1992; Bilsky & Shwartz, 1994; Karakitapoğlu- Aygün & İmamoğlu, 2002). Individuals are responsive to these social values of the society which is equal to social attitudes; that is, in Reuter (1923)'s words, "an individual tendency to react either positively or negatively to a given social value." From this point, one can conclude that, some of the behaviours of a person are not solely individual, but also social (Faris, 1925). That is, by means of socialization, established social attitudes and values tend to form a view of the world (Hartmann, 1977), determining the social behaviour, and providing mechanisms of social control (Reuter, 1923).

In the present study, two culturally related concepts, conservatism and religiousness, will be considered as determining individuals' social behaviour. Schwartz (1994; 1999) claimed conservatism to be a value on the societal level composed of social order, family security, respect for tradition, etc. Conservation is the reflection of

conservatism on the individual level including tradition (respect for, commitment to and acceptance of the customs and ideas that traditional culture and religion impose on the self) (Schwartz, 1992; Bilsky & Schwartz, 1994). It was shown that, conservatism is one of the values in the Turkish culture including tradition/religiosity and normative patterning (Karakitapoğlu- Aygün and İmamoğlu, 2002). Moreover, religious and national values are proposed to be the main values the conservatives 'conserve' in Turkey (Göka, Göral, & Güney, 2003), which is a country shown to have a high score in terms of conservatism and hierarchy (Schwartz, 1994; Schwartz, 1999). As a result, these mentioned cultural concepts, related to each other and to the Turkish culture, will be measured on the individual level to see their differential effect on the traffic behaviour of the participants.

### **1.1.1. Religiousness**

It has been argued that, religion is always both individual and social behaviour (Spinks, 1963; Beit-Hallahmi & Argyle, 1997). It includes individual experiences as well as beliefs, customs, and traditions of social groupings (Spinks, 1963). In other words, religion is both a cultural structure and a personal assimilation of that structure (Beit-Hallahmi and Argyle, 1997). This basic approach is the focus of the present study. In line with this approach, Pratt (1930) defined religion as, the social attitudes of individuals or communities toward the power(s) which they think as having control over their destinies and interests in an ultimate sense (as cited in Clark, 1958). Besides, there are definitions of religion based on only individual experience or society. Clark (1958), considering individual experience, depicted a picture of religion as, the inner experience of the individual sensing a Beyond and the active attempt of him/her to harmonize his/her life with the Beyond. From a sociological point of view, Parsons thought of religion as, a set of beliefs, practices and institutions which people have evolved in different societies (as cited in Clark, 1958).

Religiousness was conceptualized as, intrinsic and extrinsic religious orientation by Allport and Ross (1967). According to these authors, intrinsically oriented individuals

find their master motive in religion. Therefore, other needs are of less ultimate importance and are brought into harmony with the religious beliefs and prescriptions. These people are privately religious having private, personal and transcendent experiences easily and often, accepting and making use of these experiences (Maslow, 1964). On the other hand, extrinsically religious oriented individuals also turn to God, but without turning away from themselves (Allport & Ross, 1967). That means, they are disposed to use religion for their own ends, such as, to provide security, status, etc. These individuals use religion for their benefits (Allport & Ross, 1967) and accept the conceptualization of the religion as, all of the symbols, ceremonies, words, etc. as can be seen from many people in many cultures (Maslow, 1964). Other than these points, the degree of cohesion of religion with the social structure can have varying effects on the religiousness of the individual (Glock, 1998). Accordingly, when religion turns into a separate institution, as in secularism, its effects will depend on the differential construal of the individuals. In the present study, intrinsic and extrinsic religious orientations were considered to measure individuals' religiousness. Besides, secularism level of the participants' was taken into account thinking that, this concept is also relevant to religiousness in Turkey.

#### **1.1.1.1 The Dimensions of Religiousness**

Glock (1998) proposed that, religion is a profound issue; as a result, there are many dimensions of religiousness. Accordingly, to consider all the dimensions together will be a useful approach when dealing with one's religiosity level because of the reasons stated below. He suggested there to be five different dimensions, which are; religious belief, religious practise, religious knowledge, religious experience and lastly, religious consequence.

Religious belief is the core of all the religions which means accepting the existence of a Beyond. Every religion constructs a system of belief principles and expects from its adherents to accept them. Religious practise is the outward expression of this religious belief. That means; religious lifestyles, religious practises, etc. are the

indicators of being religious. Furthermore, the religions want from their adherents to be knowledgeable about the contents of themselves. But, religious knowledge, on its own, may not be enough to measure one's religiosity. Because, deep knowledge may not lead one to have religious practises or increase one's faith. The fourth dimension is the religious experience, which is to have a deep religious emotion and feeling at a time and sense the Beyond deeply. These are rare events and can not be searched with ease. Lastly, religious consequences can have varying effects on the individual, depending on the cohesion of religion with the social structure.

Specifically, the focus of the present study will be on the religion of Islam. Around the world, there are about 1 billion Muslims making up 19, 9 % of all the believers. Two hundred and six countries adhere to Islam partly or completely (Encyclopaedia Britannica). One of these countries is Turkey in which nearly all of the population claims allegiance to Islam (Encyclopaedia Britannica). Below is a brief introduction about the main dimensions of Islam akin to Glock's classification of religious dimensions. The information is based on the formal knowledge gathered from the Department of Religious Affairs [DRA] (2007).

Islam includes the dimensions of faith, worship and morality. Faith in God (Allah) and the belief system made up around this faith is the base of religion in Islam. That is, the faith is to amend the prophet Mohammed about the adjudications which are certain that he brought from the God, to accept the things he informed and to believe that these are real and true. One has to show this faith by being involved in worship. Accordingly, religious practice in Islam is the formal indicator of submission to the God. The third dimension is the morality which includes making people satisfied and happy, abstaining from making them restless and not violating their rights. According to Islamic principles, it is crucial that the Muslim must extend his/her religiousness to every aspect of daily life and take care of obeying the rules of social arrangements of traffic rules, general health rules, the rights of neighbourhood, etc. These are the formal dimensions of the religion of Islam. As a result, one must be cautious when dealing with its implications in the daily life or in the culture. The

reflection or the interpretation of religion in the culture *can* be different from its original messages. That means, the religion institutionalized in the outer world *may* be distant from its original messages (Akdemir, 2000 as cited in Özdoğan, 2005; 2007).

#### **1.1.1.2 The Effects of Religiousness**

Beit- Hallahmi and Argyle (1997) assumed that, the general effects of religion and being religious can show itself by controlling individual impulses, relieving frustrations and anxieties about life and death, providing meaning and providing identity. In their extensive review, they presented the individual and group level results of different studies which were conducted mainly in Western countries dealing mostly with Christianity and its denominations. Accordingly, religiosity is related to happiness, health, mental health, suicide, altruism and sexual behaviour. To give a few examples, religious activity and belonging to the church increase happiness and well being, by providing social support and decreasing loneliness. Similarly, El Azayem et al. (1994) proposed the psychological corollary of being a Muslim. The authors argued that, depression, suicide and sexually transmitted diseases are low in Muslim countries, because of the basic principles and teachings of Islam. Moreover, Ghorbani et al. (2002) demonstrated that, in Iran, people who are intrinsically religious, i.e. being religious for the sake of religion, had lower levels of depression and psychoticism. Mosque membership and the social support of the community were found to enable individuals to cope with stress and unemployment much better (Shams & Jackson, 1993 as cited in Beit- Hallahmi & Argyle, 1997).

Beit- Hallahmi and Argyle (1997) argued that, on the group level, religiousness is related to crime, divorce, prejudice, fertility, work and achievement. Suffice to say, those who are actively religious have lower rates of crime and work harder. It was also stated in the literature that, they have fifty percent of the divorce rates of others and are more integrated with the society. In a similar line, using a macro level analysis,

Simpson and Conklin (1989) showed that, the suicide levels are low in Muslim countries and the religion of Islam has an independent effect in lowering suicides. El Azayem et al. (1994) also proposed that, suicide is rare in Islamic society.

### **1.1.2. Conservatism**

According to Wilson (1973), conservatism is a general factor underlying the entire field of social attitudes. He proposed that, the function of being conservative is to simplify the environment by providing oneself with rules for conduct and a set of values. In other words, it provides oneself to order and control more secure both the external (through perceptual processes) and internal (needs, feelings, desires) world. Moreover, resistance to change and the tendency to prefer conventional, traditional and safe forms of behaviour and institutions are seen as the main underlying ‘mechanisms’ of conservatism. That is to say, a conservative person prefers for existing and traditional institutions and has a disposition towards being moderate and cautious. Below, related social attitudes to conservatism are presented which can be seen as the content of the main underlying dimensions.

#### **1.1.2.1 The Attitude Clusters of Conservatism**

Some of the main attitude clusters of conservatism proposed by Wilson (1973) are religious fundamentalism, pro-establishment politics, insistence on strict rules and punishments, and superstitious behaviour. That is, the “ideal conservative” has a tendency to adhere to a religion of a dogmatic kind and to be superstitious and fatalistic believing that; one’s destiny is not under one’s own control. Besides, she/ he is likely to favour strict regulation of individual behaviours and to be committed to political organizations which favour the maintenance of the status quo. According to Wilson (1973), these attitude clusters can overlap or be related to each other, but, at the same time, they do not need to be together.



In spite of Wilson's claim that, conservatism and liberalism are two opposite poles of a dimension, Kerlinger (1978) proposed these two to be orthogonal to each other. The results of his empirical studies supported this conclusion (Kerlinger, 1967; Kerlinger, Middendorp, & Amon, 1976; Kerlinger, 1978). Accordingly, conservatism is composed of religiosity, economic conservatism, traditional conservatism and morality. Besides, liberalism consists of social and economic equality, socialism and social welfare, sexual freedom, feeling and affection, and militant social action.

Portraying conservatism in the Turkish context is crucial at this point. Göka, Göral and Güney (2003) argued that, shortly before and at the foundation of the Turkish Republic, there emerged a new value system on a general basis. It was composed of three dimensions. The first one was Westernism including orientation to universal, political and ethical values; science and technology. The second one was Nationalism referring to a legal foundation of defining people living in Turkey and feeling as Turks and the last one was Islamisizm which was merging the new value system with the religious values. The crucial point here is that, each of these dimensions was not separate, but they made up a unique picture of the value system affecting the social and political existence of the citizens. According to these authors, as a result of changes and impacts on the national and global level, the dimensions began to have different connotations for different groups. Consequently, conservatism began to be shaped. The conservatives got to know what to defend, which are related to resistance to change and preference for safe institutions and behaviours, such as the nation, the religion, the traditions, etc.

## **1.2. Traffic Behaviour**

Traffic related injuries and deaths have become a major health concern around the world (Forjuoh, 2003). Especially in low-income countries, traffic accidents are a major cause of injuries, disabilities and deaths (Khan, et al, 1999). This is partly because of low adherence to traffic regulations by both pedestrians and drivers in low-

income countries compared to high-income ones (Hamed, 2001), as well as little progress made towards addressing this problem in the low-income countries (Forjuoh, 2003). Traffic accidents are also an important problem for Turkey with psychological and financial outcomes (Türküm, 2006; Sümer, 2002). In the last year, 4633 people died and 168.550 people were injured as a result of traffic accidents occurred in residential and non-residential areas (Security General Directorate, 2006). In the present study, traffic behaviour is studied both in terms of driver and pedestrian behaviour.

### **1.2.1 Driver Behaviour**

In the literature, it has been widely claimed that, traffic accidents occur as a result of the interaction among the driver, the vehicle and the environment. Moreover, Lewin (1982) proposed human factors to cause traffic accidents mainly. Accordingly, more than half of them are caused solely by human factors, while 30-40 % of them occurred as a result of combination of human factors with mechanical and environmental failures. Elander, West and French (1993) categorized human factors into driving skill and driving style generally. Driving skill is what a driver can do and related to information processing and motor skills during driving, as well as to general information processing skills. These skills can improve with practise and training. Use of steering wheel to track the road can be seen as an example to driving skill (Elander, et al., 1993).

Driving style refers to the way a driver chooses to drive and includes individual driving habits. Reason and colleagues (1990) differentiated driving style into errors and violations mainly, which have different psychological origins and demand different modes of remediation. Errors have been defined in relation to cognitive processes of the individual, like memory failures or judgmental mistakes; such as, misunderstanding the traffic signs. On the other hand, violations have been considered as deliberate and intentional, which must be understood within a social context in which behaviour is governed by rules, norms, codes of practice, etc. (Reason, Manstead, Stradling, Baxter,

& Campell, 1990). Ordinary violations include breaking the Highway Code rules, such as, speeding on a residential road. Besides, there are aggressive violations having an emotional content, such as, sounding the horn to indicate annoyance.

Other than these widely studied aberrant behaviours in the literature, there are also positive driver behaviours which facilitate smooth driving as proposed by Özkan and Lajunen (2005a). Accordingly, these behaviours do not have to be based on regulations or rules and do not take safety into account primarily. They are related to taking care of the traffic environment and other road users by helping or being polite (e.g. avoiding close following not to disturb the car driver in front).

Both of driving skill and driving style of the individuals are related to accident involvement (Elander, et al., 1993). In terms of driving style, which will be the focus of the present study, Parker et al. (1995) showed violations to be most closely associated with accident involvement. In their study, the authors found that, accident liability was predicted by self-reported tendency to commit violations; but not by tendency to make errors. Considering that, the cultural variables used in the present study will be mostly related to deliberate and intentional behaviour rather than to the cognitive failures of the individuals, ordinary and aggressive violations will be mainly taken into account. Besides, positive driver behaviours will be dealt with which were shown to be negatively related to measures of driver aggression (Özkan & Lajunen, 2005a).

Heretofore in the literature, demographic factors, personality factors and factors related to attitudes, beliefs and the like have been studied related to driving style. It has been shown that, the male and the young tend to commit more violations compared to the female and the old. Besides, the latter group was shown to commit more errors than the former group (Reason, et al., 1990; Parker, et al., 1995). It was also shown that, positive driver behaviours increase as age increases (Özkan & Lajunen, 2005a). Aggression, locus of control, sensation seeking, neuroticism, extraversion, etc. were studied as personality variables related to driving style. To give some examples,

sensation seeking has been found to be positively related to violations at the same time to accidents. Sensation seekers were found to involve in violations, such as, speeding, frequent overtaking, or close following (see Lajunen (1997) for an extensive review about personality factors). Lastly, there are factors related to attitudes, beliefs and lifestyles. Iversen & Rundmo (2004) showed that, attitudes toward traffic safety issues (toward rule violation and speeding) influence involvement in risk behaviour in traffic. Furthermore, Parker et al. (1998) demonstrated belief and attitude to be predictive of self- reported aggressive driving behaviour. Lifestyle patterns were shown to be related to errors, lapses, ordinary and aggressive violations by Chliaoutakis and colleagues (2005). For instance, having a religious and traditional lifestyle was related to ordinary violations in a negative way.

### **1.2.2 Pedestrian behaviour**

As mentioned before, traffic accidents involving pedestrians are a serious safety problem especially in low- income countries (Hamed, 2001; Khan et al., 1999; Diaz, 2002). However, pedestrian behaviour has not aroused enough interest from road safety researchers, compared to driver behaviour (Rosenbloom, Nemrodov, & Barkan, 2004). Besides, pedestrian behaviour has not been widely studied as differentiated into categories, Diaz (2002) being an exceptional case. In her study, she used a pedestrian behaviour scale composed of three factors similar to the components of the driving style mentioned above (violations, errors and lapses). A similar classification of the pedestrian behaviour was considered in the present study. Moreover, since the cultural variables used in the present study will be mostly related to deliberate and intentional behaviour rather than the cognitive failures of the pedestrians, violations rather than errors will be mainly taken into account.

Heretofore, some factors related to risky pedestrian behaviour have been demonstrated in the literature. Demographic factors; environmental and situational factors; and factors related to attitudes, beliefs and values were found to be related to pedestrian behaviour. Age and sex of the pedestrians have been the mostly studied demographic

variables. It has been found that, females indulge in less risky behaviour compared to males (Rosenbloom, Nemrodov, & Barkan, 2004; Harrell, 1990; Tiwari, Bangdiwala, Saraswat, & Gaurav, 2006). Moreover, it has been shown that, as age increases, risky pedestrian behaviour decreases (Rosenbloom, et al., 2004; Diaz, 2002; Harrell, 1990). Parenthetically, Diaz (2002) concluded that, young males are a risk group in traffic both as driver and pedestrian. Other than age and sex, Hamed (2001) and Diaz (2002) claimed that, possession of a driving license can make a difference in obedience to rules. According to the authors, license holders may better know the traffic context and behave accordingly. In spite of this claim, Diaz (2002) and Holland & Hill (2007) could not find any difference between license holders and non license holders in terms of rule obedience as pedestrians. Lastly, pedestrians who frequently use a certain crossing, and ones who live nearby to the crossing were found to indulge in risky traffic behaviour; whereas, individuals involved in a traffic accident were more cautious (Hamed, 2001).

In the literature, separate observations have shown that, pedestrians crossed the road more carefully in warm weathers. When the roads are icy, they paid more attention to road crossing. Besides, high pedestrian and high traffic densities cause pedestrians to be less cautious while crossing the road (Harrell, 1990). There are also situational variables influencing pedestrian behaviour, such as, the presence of others, beliefs about the behaviour of others and physical conditions (Yagil, 2000).

Other than demographic and environmental variables, factors related to attitude, value, etc. also influence the pedestrian behaviour. To give a few examples, Diaz (2002) showed that, young pedestrians have more positive attitude and intention towards rule violation; perceive less inhibition and have less control over violating the rule. Furthermore, benefits gained by violating the rule have more influence on one's behaviour as a pedestrian than perceived barriers (Yagil, 2000). Holland and Hill (2007) found a result in the same line in that, perceived value of crossing was more influential on pedestrians than perceived risk.

### **1.3. Religiousness, Conservatism and Traffic Behaviour**

Several factors, influencing traffic behaviour, make up the traffic culture which is the result of both the larger cultural inheritance and the present state of environment (Leviäkangas, 1997) and can be differentiated into proximal and distal factors (Özkan, 2006; Melinder, 2007; Sümer, 2002). Proximal factors are directly influencing the traffic behaviour such as, road user behaviour and performance, automotive engineering, etc. Distal factors have indirect effects on the traffic behaviour and safety including economy, national culture, attitudes, personality, etc. From this classification, it can be assumed that, religiousness and conservatism are cultural concepts which may externally influence the traffic behaviour.

Religion, being both a cultural structure and a personal assimilation of this structure (Beit- Hallahmi & Argyle, 1997), is supposed to influence the safety behaviour of the individuals, specifically in traffic. On a macro level, Melinder and Andersson (2001) claimed that, economic level and religion are the most influential factors with regard to injury rate differentials of suicide and traffic accidents. In a similar line, Melinder (2007) found that, type of religion (being Catholic or not) and wealth of the country are the most crucial variables when looking at differential fatal traffic deaths (among European countries).

On an individual level, a person's religiousness can influence health behaviour and personal lifestyles, by regulating health relevant conduct, and discouraging risk taking and deviant behaviour (Ellison, 1998). In this manner, religiousness can be said to have a positive effect on individuals' behaviour. In a similar line, Chliaoutakis, Koukouli, Lajunen, & Tzamalouka (2005) found that, people having a religious lifestyle do not engage in intentional (ordinary) violations while driving. The authors inferred that, religion, encouraging an individual to get involved in less risky behaviour and teaching him/her how to put limits on his/ her behaviour, orient people to obey the traffic rules and not to commit ordinary violations. Similarly, Chliaoutakis, Darviri and Demakastos

(1999) found that, young drivers, whose lifestyle is predominantly religious (including going to church, fasting, etc.), face lower accident risks.

The aforementioned aspects of religion may be thought of orienting individuals to positive behaviours in traffic. The religious background must also be considered to understand the context more clearly in the present study. When one looks at the Islamic principles and teachings, he/ she can easily see the positive suggestions in line with the mentioned aspects above. Morality, an important part of the Islamic religion, tells its adherents to make people satisfied and happy, not to violate their rights and to abstain from making them restless. Accordingly, the Muslim must extend his/her religiousness to every aspect of daily life and take care of obeying the rules of social arrangements of traffic rules, general health rules, etc. Other than this, there are the prohibitions of deviant behaviours like drinking, premarital sexual behaviour, etc. all of which can make a person live a moderate life. From this point, it can be assumed broadly that, Islamic principles have the potential to lead individuals to have safe behaviours in traffic.

On the other hand, there can also be the property of fate and fatalistic views indulged in religion. Rosenbloom and colleagues (2004) showed that, pedestrians in a religious place involved in rule violation 3 times more than those in a secular place. The authors explained the results in terms of fate and fear of death. Accordingly, fatalistic beliefs and a positive conception of the life after death may make individuals neglect safety measures (but, one must be cautious that, ideological and practical implications were also given as explanations to the rule violation in the same study). Kouabenan (1998) found that, fatalistic beliefs and mystical practises influence the perception of accidents; make one to take more risks and to neglect safety measures. Accordingly, the most fatalistic subjects gave simplistic, fatalistic and imprecise definitions (e. g. “it is god’s work, it can not be foreseen”; “it is a terrible thing.”) for the causes of traffic accidents in his study. Moreover, for potential factors of accidents, the most fatalistic subjects mentioned external factors like, the lack of pedestrian crossings, absence of signals at junctions, etc. instead of more internal ones, such as, ignorance and

underestimation of danger. Other than this, Colon (1992) claimed that, belief in destiny influence the use of seat belts negatively. That is, individuals high in belief in destiny used seat belts less often compared to those low in belief in destiny.

Considering our country, Sümer (2002) proposed that, the common traditional attributions of fate, chance and luck to traffic accidents cause an obstacle for the drivers to search for their own faults. However, Özkan and Lajunen (2005b) could not demonstrate a relationship between attribution of causes of traffic accidents to external causes (of fate, chance and bad luck) and accident involvement and violations committed. The authors argued that, although behaviours done by the drivers to be protected from bad luck are common, it is possible that, people rely on fate when coping with loss after an accident (but not when taking precautions for accident). In a similar line, Türküm (2006) claimed that there is not a meaningful relationship between fatalism and self-protecting behaviours of individuals in support of Özkan and Lajunen (2005b)'s proposition.

Cognitive and behavioural efforts to manage internal and external demands refer to coping (Folkman & Lazarus, 1986), which includes fatalistic strategies thought to be relevant to the Turkish culture (e.g. Karancı, et al., 1999). That is, fatalistic and superstitious coping strategies were thought to take place in the Turkish culture (e.g. thinking that it is the destiny and it does not change; praying for help) and used in some studies (e.g. Karancı, et al., 1999; Şakiroğlu, 2005; Güneş, 2001). It was shown in the literature that, fatalism leads to passivity in the face of serious risks (McClure et al., 1999), e.g. in the preparedness behaviour for the earthquake (Şakiroğlu, 2005; Smith, 1993 as cited in McClure et al., 2001). As a result, fatalistic coping was investigated in the present study to see its potential negative effect on the accident involvement and violations.

Considering the teachings of Islam, belief in fate and adjudication is one of the main principles of this religion. Fate (*al-qadar*) means that, God knows the time, the place and the characteristics of all the events. Adjudication (*al-qadaa'*) refers to God's



creation of the events in a proper order when its time has come. The crucial point here is the fate perception of human beings. One can think that, everything will happen according to his/her destiny. So, he/she may have a tendency to escape from responsibility by using fate as an excuse. According to Islamic teachings, this is a faulty way of thinking. Consequently, one must do whatever he/she can, then confide in the God and leave the rest to the God's appreciation. How individuals consider the concept of fate and in what way it influences one's behaviour are the crucial points to be considered.

How can an underlying mechanism -conservatism- providing individuals with rules for conduct and a set of values influence the safety behaviour, specifically in traffic? Unfortunately, there are not so much studies dealing with this topic in the literature. Theoretically, the susceptibility to experiencing threat or anxiety leads to a tendency to avoid uncertain stimulus configurations of novelty, risk, social disorganization, etc. (Wilson, 1973). From this point, it can be hypothesized that, highly conservative individuals may not engage in rule violations and risky behaviour in traffic. In a similar line, Özkan and Lajunen (2007) showed that, as conservatism (one of the values of Schwartz (1994) on the societal level) increases, the traffic fatality rate decreases. Moreover, Steiner and Parish (1971) found a negative relationship between conservatism and risk taking (unpublished study, as cited in Wilson, 1973). Conservatism was also found to be negatively correlated with sensation seeking (Kish, 1973) which has been clearly shown in the literature to be related to violations on the roads, such as, speeding, risky overtaking, etc. Generally it can be assumed that, conservatism may lead an individual to obey the traffic rules, therefore to indulge in less risky behaviour and violations.

#### **1.4 Aims of the Study**

In the current thesis, two culturally relevant concepts, i.e. religiousness and conservatism, will be studied to see their differential effects on the safety behaviour,

specifically traffic behaviour of the individuals. Traffic behaviour is taken into account as accident involvement, and rule violating behaviours, as well as positive driver behaviours. The first aim of the study is to investigate the relationship of the degree of religiousness with the traffic behaviour. Furthermore, whether religiousness and related dimensions have a positive or negative influence on the traffic behaviour will be investigated. On the basis of the gathered general results, fate (a traffic targeted locus of control measure) and fatalistic coping (a general measure of coping thought to be related to Turkish culture) will be investigated in relation with the general religiousness concepts. The second aim of the study is to investigate the relationship of conservatism with traffic behaviour. It is also important to see the relevance of these aforementioned cultural concepts to each other in terms of traffic behaviour. The final aim of the study is to see the similarities and differences in the pedestrian and driver behaviour as being influenced by the mentioned cultural concepts.

### **1.5 Hypotheses of the Study**

- 1- Considering the potential positive influences of religion on the individual, it was hypothesized that; pedestrians and drivers who are highly religious (i.e. those who believe in religion for its own sake) will engage in fewer risky behaviours, violations and accidents.
- 2- Conservatism has the potential to lead an individual to prefer for safe forms of behaviours and institutions. Accordingly, this may lead individuals to obey the rules. It was hypothesized that, pedestrians and drivers who are conservative will adhere to traffic rules more; will indulge in fewer violations and accidents.

## CHAPTER 2

### METHOD

#### 2.1. Participants

Three hundred and eleven people participated in the study. There were 208 students and 103 non-students. The students were from Middle East Technical University ( $N=111$ ) and Gazi University ( $N= 70$ ) (27 were unknown). All but 3 of the participants reported their age, which ranged from 18 to 60 ( $M= 26, 74$ ;  $SD= 9, 34$ ). There were 233 males and 77 females, with one missing. Two hundred and seventy three people reported that, they believe in Islam; whereas, 35 of the participants were non believers. Religious (Islamic) belief extend was “non/ almost none” and “little” for 12% and 13% percent of the participants, respectively. Besides, 30% reported to believe in Islam “much”; whereas, 43% said that, they believe in it “very much”.

The total sample was used for pedestrian behaviour analysis. The pedestrian active/ passive accident involvement in the last three years (e.g. hit an object or another pedestrian) ranged from 0 to 8 ( $M= 0, 17$ ;  $SD= 0, 65$ ). Besides, pedestrians’ active/ passive near accidents (e.g. come up against a vehicle) varied between 0 and 20 ( $M= 1, 58$ ;  $SD= 2, 86$ ). Out of the total sample, 265 drivers (201 male; 63 female) were used for driver behaviour analysis. All but 10 of them were licence holders (2 cases were missing). The duration of having a licence ranged from 0 to 33 years ( $M=6, 58$ ;  $SD= 7, 16$ ). The mean of last year and lifetime mileage were 6950 km ( $SD= 13,098$ ; range =0- 100,000 km) and 79360 km ( $SD= 208,448$ ; range= 3-1,500,000 km). Drivers’ accident involvement ranged between 0-7 for passive accidents (e.g. situations in which a driver/ pedestrian hit you) and between 0-11 for active accidents (e.g. situations in which you hit a vehicle/ pedestrian or an object). The range of total offences (speeding, faulty parking, etc.) was from 0 to 23.

## **2.2.Measures**

### **2.2.1 Religious Orientation Scale (ROS)**

Allport and Ross (1967)'s theory and conceptualization of intrinsic/extrinsic religious orientations have been the backbone of empirical research in the psychology of religion (Maltby, 1999; Masters, 1991; Kirkpatrick & Hood, 1990) and also have been used theoretically in some studies in Turkey (e.g. Özdoğan, 1995). Besides, it has been claimed that, Allport's conceptual framework were supported cross- culturally (Ghorbani, Watson, Ghramaleki, Morris, & Hood, Jr., 2002). Ghorbani et. al. in both 2000 and 2002 (in Iran) and Yaparel in 1987 (in Turkey) demonstrated that, Allport's concepts were relevant to the Muslim psychology of religion.

There are some problematic issues about these original concepts, as Kirkpatrick and Hood (1990) mentioned in their extensive criticism. Besides providing rich theoretical baseline for measuring religiousness, the current concepts need psychometric and conceptual clarifications. Firstly, Allport considered religious orientation to be bipolar, but his following study (Allport & Ross, 1967) and the literature have shown these dimensions to be orthogonal. Also, there emerged three factors instead of two basic ones in some studies (see Kirkpatrick and Hood, 1990 for a thorough review). Secondly, the original questionnaire does not have a specific content of any religion except some items about church membership. So, targets of commitment and motivation can be problematic in heterogeneous samples. Finally, the theoretical meaning of extrinsic religiousness is being questioned in that, extrinsicness may have positive potentials; it is not totally a negative dimension as Allport argued (Ghorbani et. al., 2002).

Gorsuch and Venable (1983) revised the original Allport & Ross's Religious Orientation Scale (ROS) by simplifying its language. The items of the new scale, the

Age Universal Religious Orientation Scale, had satisfactory correlations with the original ROS.

The aforementioned scale was used in the present study. The items were translated to reflect Islamic beliefs and practices, so what is measured and considered will be clear (Kirkpatrick & Hood, 1990). There were 11 items measuring extrinsic orientation (e.g. I pray mainly to gain relief and protection; I go to mosque because it helps me to make friends) and 9 items measuring intrinsic orientation (e.g. I try hard to live all my life according to my religious beliefs; my whole approach to life is based on my religion) (the original items can be found in Gorsuch & Venable, 1983; Maltby, 1999). Besides, as mentioned before, secularism was also measured considering it as a part of religiousness in Turkey. Eight items were constructed by the author to measure the degree of secularism of the participants (e.g. In my opinion, secularism is an essential requirement of the state; I think the state must be equally distant to each religion). There were 28 items in total. A five point Likert type scale was used (strongly disagree = 1, strongly agree =5). By this way, in line with Kirkpatrick and Hood's (1990) suggestion, data can also be gathered from non religious people, restriction of range not being a problem.

### **2.2.2 General Conservatism Scale**

A 13- item General Conservatism Scale was constructed by the author considering the characteristics and dimensions of conservatism in Turkey (the details are on page 5). There were 3 items related to the national and religious values (e.g. the society must maintain its national values); 5 items related to change and traditions (e.g. it is necessary to maintain tradition and customs for the benefit of the society); and 5 items related to family and the elderly (e.g. it is wiggery to stick to family values (reverse item)). A 5 point Likert type scale was used ranging from strongly disagree (1) to strongly agree (5).

### **2.2.3 Driver Behaviour Questionnaire (DBQ)**

Aberrant driving behaviours can be categorized into errors and violations mainly (Reason, et al., 1990; Parker, et al., 1995). Errors are related to the cognitive processes of the individual and can be differentiated into slips (related to the attention deficits) and lapses (related to memory failures) (Reason, et al., 1990; Özkan & Lajunen, 2005a). On the other hand, violations must be described with regard to a social context and must be seen as deliberate and intentional with regard to both the action and its consequences (Reason, et al., 1990; Parker, et al., 1995; Özkan & Lajunen, 2005a). Reason et al. (1990) constructed the Driver Behaviour Questionnaire (DBQ) to measure aberrant driver behaviours with three factors which are errors, lapses, violations, using 50 items. Parker, et al. (1995) found out the same factor structure with 24 items using the marker items of the aforementioned subscales. Moreover, Lawton et al. (1997) added the fourth dimension to the original DBQ which is the emotional facet of the aberrant driving behaviours, that is, aggressive violations.

The DBQ was translated into Turkish and its factors were validated in the Turkish sample by Lajunen & Özkan (2004) and Sümer & Özkan (2002). In the present study, 28-item DBQ was used (Sümer & Özkan, 2002) composed of 4 factors, which are, errors (8 items, e.g. hit something when reversing), lapses (8 items, e.g. forget where you parked your car in a parking lot), ordinary violations (8 items, e.g. speed on a residential road) and aggressive violations (4 items, e.g. sound your horn to indicate your annoyance). Besides aberrant driver behaviours, there are also positive driver behaviours, which are related to taking care of traffic environment and other road users, helping and being polite with or without safety concerns (Özkan & Lajunen, 2005a). The Positive Driver Behaviour Questionnaire, which was developed by Özkan & Lajunen (2005a), was also taken into account with 14 items (e.g. avoid close following not to disturb the driver in front). A 6 point Likert type scale was used ranging from 1 (never) to 6 (nearly all the time) in the final 42-item scale.

#### **2.2.4 Pedestrian Behaviour Questionnaire (PBQ)**

Many factors have been found affecting or correlating with (risky) pedestrian behaviour in the literature. However, pedestrian behaviour has not been studied as differentiated into categories, Diaz (2002) being an exceptional case. In her study, she constructed a 17 -item pedestrian behaviour scale composed of three factors, namely violations, errors and lapses in line with the conceptual framework of the Driver Behaviour Questionnaire mentioned above.

Similarly, a scale was constructed by the author with the help of the advisor, to measure aberrant pedestrian behaviour. In a similar line with the Driver Behaviour Questionnaire, items were constructed representing aggressive violations (4 items; e.g. cross the road very slowly to annoy a driver); ordinary violations (6 items; e.g. cross the road when the traffic light for pedestrians is red) and errors (6 items; e.g. hit another pedestrian or an object because of failure of attention). A six- point Likert type scale was used ranging from never (1) to all the time (6).

#### **2.2.5 Multidimensional Traffic Locus of Control Scale (T- LOC)**

Özkan and Lajunen (2005b) developed a traffic targeted multidimensional locus of control scale, called Multidimensional Traffic Locus of Control Scale (T-LOC). The main aims behind this were the possibility of better prediction of drivers' attributions of accidents and the inferred simplicity of the original two factor structure of internality and externality of the Rotter's Locus of Control Scale.

In the present study, the 17- item T-LOC was used to measure the possible causes of accidents the participants attribute (Özkan, Lajunen, & Kaistinen, 2005). There are four factors referring to internal (Self) and external (Other drivers, Environment and Vehicle, Fate) causes of accidents in the mentioned scale. The subscale of "Fate", which is, causes of accidents attributed to fate, bad luck and coincidence was used in

the main analyses of the present study. A five- point Likert type scale was used ranging from 1 (not possible) to 5 (highly possible).

### **2.2.6 Ways of Coping Questionnaire (WCQ)**

In the present study, the participants' degree of fatalism was also considered to clarify its effects on the safety behaviour. To measure fatalistic coping, Ways of Coping Questionnaire, which examines cognitive and behavioural efforts to manage internal and external demands was used (Folkman & Lazarus, 1985). The adapted version of the WCQ into Turkish, which has been used in several studies (e.g. Karancı, et al., 1999; Şakiroğlu, 2005; Güneş, 2001) was considered in the present study. There were four factors in the scale (problem solving, self blaming, seeking social support and fatalistic coping). Related to the present study, fatalistic coping subscale was taken into account. Out of total 42 items, 23 items were considered. Accordingly, 10 items tapped fatalistic coping and the remaining ones were the marker items of the other subscales. A 3- point scale was used ranging from never (1) to always (3). A mean score of fatalistic coping was computed for each subject.



## **CHAPTER 3**

### **RESULTS**

#### **3.1 Factor Analyses**

##### **3.1.1 Factor Structure of ROS**

The 28 item of the 'extended' Religious Orientation Scale (ROS) was analysed via principle axis factoring with orthogonal varimax rotation. KMO- Bartlett test (0.92) was significant. The communalities were acceptable. The criteria to determine the number of factors were Kaiser's criterion of eigenvalues over 1.0, Cattell's scree plot, percentages of variance explained and interpretability of the factors. The scree plot showed there to be 4 factors, whereas there were three factors with eigenvalues over 1.0. Three- factor solution was the most interpretable one in line with the underlying theory. The analysis was forced into 3 factors. The eighth item was discarded from the analysis because of many missing values (10%). Items 4 and 27 which were originally representing extrinsic religious orientation, loaded on the first and the second factor similarly. These two items were not used in further analyses. The first factor included 13 items, representing intrinsic religious orientation accounting for 34 % of the variance. The second factor measured secularism with 7 items accounting for 9 % of the variance. Extrinsic religious orientation was the last factor with 5 items accounting for 7 % of the variance. It can be concluded that, the 'extended' ROS is a 25-item scale with 3 factors (see Table 1).

**Table 1.** The Religious Orientation Scale. Factor loadings and communalities (Comm.) of items and eigenvalues and alpha reliability coefficients of factors.

Items	Intrin.	Secular.	Extrin.	Comm.
1. I enjoy reading about Islam.	<b>0.65</b>	0.25	0.00	0.48
2. I go to mosque because it helps me to make friends.	0.33	0.25	<b>0.50</b>	0.42
3. In my opinion, the state should be equally distant to each religion.	0.03	<b>0.47</b>	0.06	0.22
4. It does not much matter what I believe so long as I am good.	-0.54	-0.50	0.03	0.55
5. Sometimes I have to ignore my Islamic beliefs because of what people might think of me.	-0.10	-0.07	<b>0.38</b>	0.16
6. I want to apply the judgements of my religion to every aspect (formal and private) of my life.	<b>-0.60</b>	-0.48	-0.12	0.60
7. It is important to me to spend time in prayer.	<b>0.73</b>	0.30	0.04	0.62
9. In my opinion, the combination of religion with state affairs is completely unacceptable.	0.14	<b>0.72</b>	0.12	0.55
10. I have often had a strong sense of Allah's presence.	<b>-0.71</b>	-0.06	0.16	0.54
11. In my opinion, there must be the course of "religion culture and moral knowledge" in the curriculum of education.	<b>-0.62</b>	-0.29	0.06	0.48
12. I pray mainly to gain relief and protection	<b>0.74</b>	0.07	0.02	0.55
13. I try hard to live all my life according to my Islamic beliefs.	<b>0.77</b>	0.42	0.09	0.79
14. What Islam offers me most is comfort in times of trouble and sorrow.	<b>0.69</b>	0.13	0.14	0.51
15. In my opinion, secularism is an essential requirement of the state .	0.03	<b>0.70</b>	0.17	0.51
16. Islam is important because it answers many questions about the meaning of life.	<b>0.85</b>	0.18	-0.02	0.75
17. I would rather read Qu'ran than join a religious gathering.	<b>0.51</b>	-0.11	0.14	0.29
18. Prayer is for peace and happiness.	<b>0.76</b>	0.11	0.06	0.59
19. I think, a woman must always use headscarf everywhere.	-0.37	<b>-0.52</b>	-0.26	0.48
20. Although I am religious, I do not let it affect my daily life.	0.04	<b>-0.43</b>	0.31	0.29
21. I go to mosque mostly to spend time with my friends.	-0.10	0.13	<b>0.84</b>	0.74

**Table 1 continued.**

<b>22.</b> My whole approach to life is based on my Islamic beliefs.	<b>0.75</b>	0.34	0.07	0.69
<b>23.</b> In my opinion, it is not acceptable to have a religious symbol in public and formal domains.	-0.15	<b>-0.61</b>	0.04	0.40
<b>24.</b> I go to mosque mainly because I enjoy seeing people I know there.	0.19	0.21	<b>0.71</b>	0.58
<b>25.</b> I pray mainly because I have been thought to pray.	0.06	0.01	<b>0.59</b>	0.35
<b>26.</b> Prayers I say when I am alone are as important to me as those I say in mosque.	<b>0.63</b>	-0.13	0.07	0.42
<b>27.</b> Although I believe in Islam, many other things are more important in life.	-0.41	-0.37	0.20	0.35
<b>28.</b> I want religious judgements to be applied in law and politics.	-0.41	<b>-0.61</b>	-0.09	0.56
<b>Eigenvalues and sums of squares</b>	9.07	2.45	1.94	13.46
<b>Alpha reliability coefficients</b>	0.80	0.80	0.72	

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### **3.1.2 Factor Structure of the General Conservatism Scale**

A principle axis factoring with orthogonal varimax rotation was used to extract the factors of the 13- item General Conservatism Scale. The KMO- Bartlett test (0.82) was significant. The communalities were acceptable. Initially, there was a three-factor solution, in which there was low number of items in each factor. Considering the eigenvalues and percentages explained, the solution was forced into two factors. Items 5 and 11 loaded on more than one factor. They were retained in one factor based on higher loadings and interpretability of the factors. The first factor included 8 items, accounting for 26 % of the variance. This factor was named as, ‘conservation of values’. The second factor with 5 items accounted for 10 % of the variance. This factor was named as ‘resistance to change’. The final General Conservatism Scale included 13 items with two factors (see Table 2).

**Table 2.** The General Conservatism Scale. Factor loadings and communalities (Comm.) of items and eigenvalues and alpha reliability coefficients of factors.

<b>Items</b>	<b>Cons. of Values</b>	<b>Resist. to Change</b>	<b>Comm.</b>
1. The society must maintain its national values.	<b>0.66</b>	0.23	0.49
2. Change is requisite for the benefit of the society.	<b>-0.31</b>	0.25	0.16
3. I attach importance to protect my family relationships.	<b>0.78</b>	0.07	0.61
4. An individual can object to the society's customs if this will be for his/ her benefit.	-0.03	<b>0.47</b>	0.22
5. It is requisite to perpetuate the customs and usage for the benefit of the society.	0.45	<b>0.53</b>	0.48
6. I respect people older than me in my family and relatives.	<b>0.76</b>	0.07	0.58
7. It is wiggery to stick to familial values.	<b>0.49</b>	0.00	0.37
8. I accept the society and its order as it is.	0.09	<b>0.47</b>	0.22
9. The strict rules formed and executed by the society must be protected.	-0.02	<b>0.68</b>	0.46
10. It is wiggery to obey the elders in the family and relatives.	<b>0.46</b>	0.08	0.22
11. The society must give priority to its national and religious values.	0.38	<b>0.66</b>	0.58
12. The society's maintenance of religious values is completely inessential.	<b>0.39</b>	0.28	0.23
13. I respect the experience of the elderly.	<b>0.53</b>	0.05	0.29
<b>Eigenvalues and sums of squares</b>	3.44	1.36	4.80
<b>Alpha reliability coefficients</b>	0.71	0.71	

### 3.1.3 Factor Structure of PBQ

The 16- item Pedestrian Behaviour Questionnaire (PBQ) was subjected to a principle axis factoring with direct oblimin rotation. The KMO- Bartlett test (0.92) was significant. The communalities were acceptable. Scree plot showed there to be 3 factors. All but one of the factors had eigenvalues over 1.0. It was inferred that, the

three factor solution was the most interpretable one in spite of the last factor's low eigenvalue. Items 6, 10 and 11 loaded on both the first and the second factor with similar values. These items were not used in further analyses. The eighth item loaded on both the first and the third factor. This item was retained in the third factor. The first factor had 6 items, representing the pedestrian errors and explaining 37 % of the variance. The second factor measured ordinary violations of pedestrians with 4 items, accounting for 7 % of the variance. The last factor tapped aggressive violations of the pedestrians with 3 items. This last factor accounted for 3.6 % of the variance (see table 3). It can be said that, PBQ is a 13 –item scale with 3 factors.

**Table 3.** The Pedestrian Behaviour Questionnaire. Factor loadings and communalities (Comm.) of items and eigenvalues and alpha reliability coefficients of factors.

Item	Errors	Ord. viol.	Aggrs. viol.	Comm.
1. Have crossed the road when the light for pedestrians was red.	-0.04	<b>0.65</b>	-0.08	0.37
2. Have got angry to another road user and shouted at them.	-0.01	0.14	<b>0.60</b>	0.42
3. Almost hit by a car because of not checking if the road was clear.	<b>0.77</b>	0.07	-0.15	0.52
4. Have crossed the road without using a pedestrian crossing, underpass or pedestrian bridge even if one of those was available.	-0.05	<b>0.68</b>	0.09	0.49
5. Have got angry to another road user and made a hand gesture at them.	0.01	0.00	<b>0.73</b>	0.54
6. Accidentally crossed the road in traffic lights when the light for pedestrians was red.	0.35	0.35	0.05	0.38
7. Walked in roadside where you should not have walked according to traffic code.	0.02	<b>0.49</b>	0.14	0.32
8. Have got angry to a driver and hit his/her car.	0.42	-0.05	<b>0.48</b>	0.61
9. Hit another pedestrian or an object because of not paying attention.	<b>0.47</b>	0.15	0.08	0.37
10. Forced drivers to stop when crossing outside a zebra crossing.	0.46	0.42	-0.04	0.51
11. Crossed the road very slowly to annoy a driver.	0.39	0.08	0.38	0.53
12. Been hit or almost hit by a cyclist or				

**Table 3 continued.**

motorcyclist.	<b>0.69</b>	-0.14	0.21	0.63
<b>13.</b> Crossing the road so that you waited in the middle a suitable gap.	0.17	<b>0.39</b>	0.16	0.35
<b>14.</b> Lost your way because of walking in deep thoughts.	<b>0.68</b>	-0.03	0.05	0.48
<b>15.</b> Walked so that other people had to give you way.	<b>0.42</b>	0.21	0.19	0.45
<b>16.</b> To be nearly hit by an oncoming vehicle because you fail to judge the speed of it.	<b>0.81</b>	-0.12	0.05	0.64
<b>Eigenvalues and sums of squares</b>	5.92	1.12	0.57	7.61
<b>Alpha reliability coefficients</b>	0.84	0.68	0.74	

### 3.1.4. The DBQ

In the present study, the original factor structure of Driver Behaviour Questionnaire (DBQ) with 28 items was maintained. Each of the factors of errors, lapses, and ordinary violations had 8 items. The aggressive violations factor had 4 items. The reliabilities of the scales were, 0.81, 0.75, 0.82, and 0.73, respectively. Besides, as mentioned before, positive driver behaviours were also taken into account (Özkan & Lajunen, 2005a). This scale had 14 items with the alpha reliability of 0.90. In the current study, the factors of ordinary violations, aggressive violations and positive driver behaviours were used in the main analyses. Means, standard deviations and sample sizes of all the scales used in the study were presented in Table 4.

**Table 4.** The means (*M*), standard deviations (*SD*) of the subscales and the sample size (*N*).

<b>Variables</b>	<b>N</b>	<b>M</b>	<b>SD</b>
Intrinsic	311	3.29	0.81
Extrinsic	311	1.89	0.75
Secularism	311	3.32	0.51
Conservation of values	311	3.90	0.56

**Table 4 continued.**

Resistance to change	311	2.94	0.77
Ordinary viol.(pedestrian)	311	2.66	0.94
Aggressive viol.(pedestrian)	311	1.83	0.89
Ordinary viol. (driver)	265	2.07	0.79
Aggressive viol.(driver)	265	2.20	0.96
Positive behaviours (driver)	265	4.00	1.04

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### **3.2 Correlational Analyses**

Table 5 lists the correlation coefficients among the factors representing religiousness and conservatism. There was a positive, meaningful but low correlation between intrinsic and extrinsic religious orientation. It was shown that, secularism was related to neither intrinsic religious orientation, nor extrinsic religious orientation. Resistance to change was positively correlated with conservation of values. Furthermore, intrinsic religiousness had positive and moderate correlations with the two components of conservatism, i.e. resistance to change and conservation of values. The correlations of extrinsic religiousness with the components of conservatism were lower compared to the correlations of intrinsic religiousness with these two components. Moreover, extrinsic religious orientation had a positive correlation with resistance to change, whereas it had a negative correlation with conservation of values. Secularism did not correlate with the mentioned variables.

**Table 5.** Correlation coefficients among the subscales of Religious Orientation Scale and General Conservatism Scale

	1	2	3	4	5
1. Intrinsic	-	0.20**	0.06	0.52**	0.50**
2. Extrinsic		-	0.09	0.22**	-0.19**
3. Secularism			-	-0.11	0.00
4. Res. to change				-	0.39**
5. Consv. of values					-

\*  $p < 0.05$ , \*\*  $p < 0.01$

Table 6 lists the correlations among factors related to religiousness and conservatism; background variables; traffic related behaviours; accidents involved, and total offences committed. Age was negatively correlated with ordinary and aggressive violations of both pedestrians' and drivers', whereas it was positively correlated with positive driver behaviours. Similarly, sex (1= male, 2= female) was shown to have negative correlations with ordinary and aggressive violations of both pedestrians' and drivers'. Sex was also negatively correlated with extrinsic religious orientation and resistance to change.

Ordinary and aggressive violations scores of drivers positively correlated with each other, with accidents involved and total offences committed, whereas, positive driver behaviours were not associated with the accident and offence measures. Accidents involved and total offences committed were also correlated positively with each other. The mentioned aberrant driver behaviours (ordinary and aggressive) were associated with ordinary and aggressive violations scores of pedestrians. Positive driver behaviours score was negatively correlated with aggressive violations of pedestrians.



**Table 6.** Correlation coefficients among the factors, accident measures and background variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16 .
1. Intrinsic	-	0.20**	0.06	0.50**	0.52**	-0.16**	-0.04	-0.10	0.00	-0.22**	-0.06	-0.03	-0.05	-0.05	-0.04	-0.10
2. Extrinsic		-	0.09	-0.19**	0.22**	0.01	-0.20**	-0.07	0.05	-0.06	-0.08	-0.14*	0.26**	0.09	0.07	0.05
3. Secularism			-	0.00	-0.11	0.13*	0.10	-0.12*	-0.07	-0.20**	-0.10	0.16*	0.00	-0.03	-0.05	-0.14
4. Conservation of values				-	0.39**	-0.14	-0.09	-0.03	-0.10	-0.15*	-0.07	0.17**	-0.04	0.01	-0.03	-0.08
5. Resistance to change					-	-0.08	-0.27**	-0.03	0.11	-0.04	0.11	-0.14*	-0.01	-0.08	-0.05	-0.08
6. Age						-	0.02	-0.21**	-0.24**	-0.23**	-0.22**	0.25**	0.11	-0.04	-0.04	-0.03
7. Sex							-	-0.14*	-0.14*	-0.15*	-0.14*	-0.01	-0.01	0.11	-0.05	-0.06
8. Ordinary viol. (pedst.)								-	0.41**	0.47**	0.29**	0.01	-0.01	-0.01	0.11	0.08
9. Aggressive viol. (pedst.)									-	0.46**	0.56**	-0.14*	0.08	0.12**	0.15**	0.19**
10. Ordinary viol. (driver)										-	0.61**	-0.05	-0.02	0.11	0.25**	0.37**
11. Aggressive viol. (driver)											-	0.00	0.01	0.10	0.23**	0.24**
12. Positive driver beh.												-	-0.04	0.06	0.00	0.00
13. Accd. inv. (pedst.)													-	0.36**	0.23**	0.04
14. Near accd. inv. (pedst.)														-	0.47**	0.32**
15. Accd. inv. (driver)															-	0.48**
16. Total offences																-

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

Pedestrians' accidents involvement was correlated positively with drivers' accidents involvement. Pedestrians' near accidents involvement was associated with accident involvement of both pedestrians and drivers, also with total offences of drivers. Pedestrians' aggressive violations score was positively correlated with ordinary pedestrian violations, with near accident involvement of pedestrians', as well as with drivers' accident involvement and offence commitment. Ordinary violations scores of pedestrians were not related to any of the accident measures.

Ordinary driver violations score was negatively related to intrinsic religious orientation, secularism and conservation of values. Positive driver behaviours score was positively correlated with secularism and conservation of values, whereas it was negatively correlated with extrinsic religious orientation and resistance to change. Pedestrians' ordinary violations score was negatively associated with secularism.

### **3.3. Sequential Multiple Regression Analyses**

#### ***Pedestrian Behaviour***

Two sequential multiple regressions were conducted using intrinsic religious orientation, extrinsic religious orientation, secularism, resistance to change and conservation of values as predictor variables. The criterion variables were the ordinary and aggressive violations of the pedestrians. Age, sex and driving frequency were controlled in the analyses. Forward selection method was used, in which control variables were entered in the first step; and the predictor variables were entered in the second step.

For ordinary violations, regression analyses indicated that, age, sex and intrinsic religious orientation were significant predictors;  $R^2= 0.08$ ,  $F(1,302)= 6.28$ ,  $p< .01$ . Age ( $\beta= -0.24$ ,  $p< .001$ ), sex ( $\beta= -0.14$ ,  $p< .01$ ) and intrinsic religious orientation ( $\beta= -0.14$ ,  $p< .01$ ) explained 5%, 2% and 2% of the variance, respectively. For aggressive

violations, age, sex and conservation of values were the significant predictors;  $R^2=0.11$ ,  $F(1,302) = 7.50$ ,  $p < .01$ . The age of the participants explained 7% of the variance ( $\beta = -0.28$ ,  $p < .001$ ); the sex of the participants explained 2% of the variance ( $\beta = -0.15$ ,  $p < .01$ ) and finally, conservation of values explained 2% of the variance ( $\beta = -0.15$ ,  $p < .01$ ). Parenthetically, resistance to change was significant ( $\beta = 0.11$ ) at the  $p = .06$  level (see table 7).

**Table 7.** Sequential multiple regression analysis predicting ordinary and aggressive pedestrian violations from religiousness and conservatism factors.

Variables	Ordinary violations as a DV		Aggressive violations as a DV	
	$\beta$	t	$\beta$	t
Age	-0.24***	-4.20	-0.28***	-5.06
Sex	-0.14**	-2.57	-0.15**	-2.65
Driving frequency	-0.08	-1.38	-0.01	-0.23
Intrinsic	-0.14**	-2.50	0.03	0.40
Extrinsic	-0.07	-1.18	-0.01	-0.12
Secularism	-0.06	-1.09	-0.02	-0.44
Conserv. of values	0.00	0.00	-0.15**	-2.73
Resistance to change	-0.02	-0.37	0.11	1.87

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

### ***Driver Behaviour***

Sequential multiple regression analyses were used to see the effects of the aforementioned predictor and control variables (age, sex and annual mileage) on ordinary violations, aggressive violations and positive behaviours of drivers. For ordinary violations, regression analyses indicated that, age, sex and intrinsic religious orientation were significant,  $R^2=0.14$ ,  $F(1, 257)=21.70$ ,  $p < .001$ . The variables age ( $\beta = -0.27$ ,  $p < .001$ ), sex ( $\beta = -0.13$ ,  $p < .05$ ) and intrinsic religious orientation ( $\beta = -$

0.27,  $p < .001$ ) explained 6%, 2% and 6% of the variance, respectively. Secondly, age, sex, extrinsic religious orientation, conservation of values and resistance to change were significant predictors of aggressive violations of drivers;  $R^2 = 0.12$ ,  $F(1,255) = 5.43$ ,  $p < .05$ . The age ( $\beta = -0.23$ ,  $p < .001$ ), sex ( $\beta = -0.15$ ,  $p < .01$ ), extrinsic religious orientation ( $\beta = -0.21$ ,  $p < .001$ ); and scores of conservation of values ( $\beta = -0.22$ ,  $p < .001$ ) and resistance to change ( $\beta = 0.16$ ,  $p < .05$ ) of the participants accounted for 5%, 2%, 2%, 2%, and 2% of the explained variance, respectively. For positive driver behaviours, age, conservation of values and resistance to change were significant predictors;  $R^2 = 0.15$ ,  $F(1,257) = 13.97$ ,  $p < .001$ . Age ( $\beta = 0.27$ ,  $p < .001$ ), conservation of values ( $\beta = 0.29$ ,  $p < .001$ ) and resistance to change ( $\beta = -0.23$ ,  $p < .001$ ) explained 6%, 4% and 5% of the variance, respectively.

**Table 8.** Sequential multiple regression analyses predicting ordinary and aggressive violations and positive behaviours of drivers from religiousness and conservatism factors.

Variables	<i>Ord. viol. as a DV</i>		<i>Aggrv. viol. as a DV</i>		<i>Positive driv. beh. as a DV</i>	
	$\beta$	t	$\beta$	t	$\beta$	t
Age	-0.27***	-4.63	-0.23***	-3.93	0.27***	4.68
Sex	-0.13*	-2.30	-0.15*	-2.47	-0.07	-1.14
Annual milg.	0.05	0.82	0.04	0.56	0.04	0.59
Intrinsic	-0.27***	-4.66	-0.09	-1.09	0.00	-0.02
Extrinsic	-0.03	-0.52	-0.21**	-3.19	-0.06	-0.90
Secularism	-0.11	-1.91	-0.01	-0.13	0.09	1.59
Consrv.of val	-0.09	-1.30	-0.22***	-3.24	0.29***	4.68
Resist.to chng.	0.07	0.94	0.16*	2.33	-0.23***	-3.74

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

### **3.4. Sequential Logistic Regression Analyses**

#### ***Pedestrian Behaviour***

Two sequential logistic regressions were conducted using intrinsic religious orientation, extrinsic religious orientation, secularism, resistance to change and conservation of values as predictor variables. The criterion variables were the accidents and near accidents involvement of the pedestrians in the last three years. Age, sex and driving frequency were controlled in the analyses. Forward selection method was used, in which control variables were entered in the first step; and the predictor variables were entered in the second step.

For accident involvement, a test of the full model against a constant only model was significant,  $\chi^2 (1, N = 303) = 5.69, p < .05$ . The model fit to data was good,  $\chi^2 (7, N = 303) = 6.84, p > .05$ . The percentage of correct classification did not increase compared to the constant model, both being 89.4%. According to Wald criterion, extrinsic religious orientation was a significant predictor differentiating between pedestrians having accidents or not ( $Wald = 6.03, p < .05$ ). A unit increase in extrinsic religious orientation increased pedestrians accidents 73%. For near accidents involvement, a test of the full model against a constant only model was not significant. According to Wald criterion, there were no significant individual predictors of near accidents.

#### ***Driver Behaviour***

Sequential logistic regression analyses were used to see the effects of the aforementioned predictor and control variables (age, sex and lifetime mileage) on active accident involvement and total offence commitment in the last three years. For accident involvement, a test of the full model against a constant only model was not significant. There were no significant individual predictors of having accidents or not. For total offences committed, the full model was significant,  $\chi^2 (1, N = 241) =$

5.90,  $p < .05$ . The model fit to data was barely good,  $\chi^2 (8, N = 303) = 15.01, p > .05$ . The percentage of correct classification was the same compared to the constant model (63%). According to Wald criterion, intrinsic religious orientation ( $Wald = 5.79, p < .05$ ) significantly predicted total offences committed. A unit increase in intrinsic religious orientation decreased total offences committed 35%.

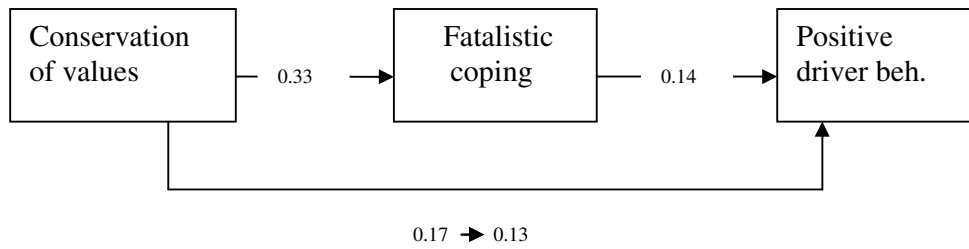
### **3.5. Fate and Fatalistic Coping**

It is crucial to clarify the effects of fate and fatalistic coping. In the present study fate ( $M = 2.50, SD = 0.86$ ) is one of the subscales of T-LOC, which measures locus of control in the traffic context. Fatalistic coping ( $M = 1.90, SD = 0.36$ ) is a component of WCQ, which is related to individuals' strategies to cope with stressful situations. Fate and fatalistic coping were positively correlated to intrinsic religious orientation and resistance to change. While fate is correlated with positive driver behaviours positively, fatalistic coping were associated with this variable negatively. Fatalistic coping were correlated to conservation of values and extrinsic religious orientation in a positive way. Fate was positively related to pedestrians' aggressive violations.

Both fate and fatalistic coping subscales were significantly correlated with the variables which were found significant in the main analyses. Consequently, mediation analyses were conducted to see the possible mediating effects of fate and fatalistic coping on traffic behaviour. To get a mediation model, several regression analyses were conducted. First of all, the dependent variable (DV) was regressed on the independent variable (IV). Then, the mediator variable (MV) was regressed on the IV. Thirdly, the DV was regressed on the MV. Finally, the DV was regressed on the IV and MV together. For mediation to occur, the mentioned equations must be significant. Furthermore, when the IV is entered with the MV in the last step, its effect on the DV must shrink. If all these steps are satisfied, it is concluded that there is an indirect effect of the MV.

Firstly, possible mediating effects of fate and fatalistic coping were studied by using religiousness dimensions as IVs and related traffic behaviour as DVs. Five separate hypothetical mediational models were constructed in line with the results of the main analyses. Each of fate and fatalistic coping were used as mediator variables between intrinsic religious orientation and ordinary pedestrian violations, separately. The same equations were applied on the ordinary violations of the drivers. Finally, the hypothetical model of fatalistic coping mediating between extrinsic religious orientation and aggressive violations of drivers was tested. It was seen that, neither fate nor fatalistic coping mediated in the relationships among IVs and DVs.

Considering the meaningful correlations between the aforementioned mediator variables and components of conservatism, 3 separate mediational hypotheses were tested using these variables on the traffic behaviour. First of all, fate was hypothesized as mediating between resistance to change and positive driver behaviours. There were direct and indirect effects of fate on positive behaviours. But, the Sobel test (Preacher & Leonardelli) showed that, this mediation is weak and insignificant at the  $p=0.09$  level. Secondly, in the same equation, fatalistic coping was used instead of fate to investigate its possible mediating role. It was seen that, fatalistic coping did not mediate between the aforementioned variables. Finally, fatalistic coping was used as a mediator between conservation of values and positive driver behaviours. Conservation of values predicted fatalistic coping,  $\beta= 0.33, p< .001$ , and positive driver behaviours;  $\beta= 0.17, p< .05$ . Fatalistic coping predicted positive driver behaviours,  $\beta= 0.14, p< .05$ . When conservation of values was entered with fatalistic coping, the effect of conservation of values on the positive driver behaviours decreased from 0.17 to 0.13. That means, fatalistic coping had both a direct effect on positive behaviours, and an indirect effect between conservation of values and positive driver behaviours. Sobel test was conducted and it was shown that, the mediation model was significant;  $t= 2.23, p< .05$ . The total effect explained the 7% of the variance (5 % from the indirect effect; 2 % from the direct effect) (see Figure 1).



**Figure 1.** The direct and indirect effects of fatalistic coping on positive driver behaviours.



## CHAPTER 4

### DISCUSSION

In the present study, it was shown that, intrinsic and extrinsic religious orientations were positively and meaningfully correlated to each other, but the correlation was low (.20). This supports that, these two variables are not reverse poles of a single dimension. The result is in line with the literature findings which argued these two components to be orthogonal or positively correlated to each other in spite of Allport's initial conceptual claim (e.g. Ghorbani, et al., 2002; see Kirkpatrick and Hood (1990)'s review). Moreover, the 'added' component, secularism, did not correlate to the religiousness variables. That means, secularism was not influenced by the degree and direction of the two types of religiousness. Interestingly, three original extrinsic religious items loaded on the intrinsic religious factor in the present study. These items were related to the positive benefits of being religious, such as, gaining peace of mind. The final extrinsic religious items were related to the social aspect of being religious, not related to being religious for the sake of religion; e.g. going to mosque to spend time with friends.

The two religious components had different relations with the conservatism dimensions. Intrinsic religious orientation had moderate positive correlations with the components of conservatism, which are conservation of values and resistance to change. In other words, as intrinsic religious orientation increases, tendency to resist change and to conserve values also increase. On the other hand, as extrinsic religious orientation increases, resistance to change increases, but conservation of values decreases. Parenthetically, secularism had no significant relationship with the aforementioned conservatism components.

It was shown in the present study that, drivers' ordinary violations were positively correlated with their aggressive violations. Pedestrians' ordinary violations were also positively associated with their aggressive violations. This means, for both drivers

and pedestrians, as breaking the Highway Code increases, violations including emotional aspects (i.e. aggressiveness) also increase. The two kind of aberrant driver behaviours were also associated with ordinary and aggressive violations committed as a pedestrian. It seems that, driver behaviour is parallel to pedestrian behaviour in terms of rule violating behaviours. These different kinds of aberrant behaviours were shown to take place in a similar direction whether an individual is a driver or a pedestrian. Furthermore, positive driver behaviours score was negatively correlated with aggressive violations of pedestrians. This is natural in the sense that, these two behaviours had emotionally reverse contents as can also be seen from Özkan and Lajunen (2005a)'s study.

It was demonstrated that, age and sex (1= male, 2= female) predicted ordinary and aggressive violations of both the pedestrians and the drivers, negatively. In other words, as age and sex increase, pedestrians' and drivers' violations on the roads decrease. The female and the elderly engage in less risky behaviour compared to the male and the young. This finding is in line with the literature about the pedestrian behaviour (e.g. Rosenbloom, Nemrodov, & Barkan, 2004; Diaz, 2002) and the driver behaviour (e.g. Reason, et al., 1990). Parenthetically, age was found to positively predict positive driver behaviours. As age increases, positive driver behaviours also increase. It can be inferred that, young drivers probably have less experience, and need to pay more attention to the traffic situation and vehicle handling. So, positive driver behaviours may not be learned initially and not shown by these drivers (Özkan and Lajunen, 2005a).

On a general basis, intrinsic religious orientation had a positive effect on traffic behaviour, supporting the first hypothesis partly. For pedestrians and drivers, intrinsic religious orientation predicted ordinary violations negatively. Besides, it also negatively predicted total offences committed. The positive impact of being religious showed itself here in line with the findings of Chlioutakis, et al. (2005), Chlioutakis, et al. (1999) and Ellison (1998). On a general base, it can be claimed that, religion provides an individual to discover values like patience, honesty,

consistency, etc. As a result, if a person benefits from religion in a 'true sense', i.e. getting the logic behind it free from formalism, he/ she will improve in a positive way (Özdoğan, 1995; see Özdoğan, 2007). Moreover, a person's religiousness can influence personal lifestyles and health behaviour, by discouraging risk taking and deviant behaviour and regulating health relevant conduct. In the present context, being 'truly' religious seems to have an influence on the traffic behaviours orienting an individual to refrain from risk taking and to obey the rules, specifically traffic rules.

The role of extrinsic religiousness was more complex compared to intrinsic religiousness. On the one hand, extrinsic religiousness increased accident involvement of the pedestrians, having a negative impact on traffic behaviour. On the other hand, it decreased aggressive violations of the drivers, providing a more positive picture. It seems that, individuals who are 'using' religion (in Allport's terminology) did not show a consistent pattern of behaviour as those who are intrinsically religious. This is logical in the sense that, individuals behaving extrinsically religious most probably approach to religion with a moulded viewpoint and perceive the religion as 'moulded', as composed of symbols, words, institutions; etc. As a result, they will not get the true meaning of being religiousness (Özdoğan, 1995). They can ignore their religious beliefs because of what other people will think of them, or they can pray because they are thought to pray (Allport and Ross, 1967). In a similar line, it can be claimed that, they behave instrumentally in the present context. They seem to have good manners by not getting aggressive while driving, but they can most probably violate rules resulting in having accidents as a pedestrian. Parenthetically, secularism was found to influence neither aberrant behaviours, nor positive behaviours taking place on the roads. It seems that, not secularism on its own but the resulting consequence of secularism, which is the differential construal of individuals of religiousness, influences the traffic behaviour.

Conservation of values had a positive effect on traffic behaviour, decreasing aggressive violations and increasing positive behaviours. In terms of pedestrian

behaviour, conservation of values negatively predicted aggressive violations. Similarly, the same variable predicted drivers' positive behaviours positively and aggressive violations negatively. Also, it was shown that, fatalistic coping mediated between conservation of values and drivers' positive behaviours. As an individual's tendency to conserve values increases, his/ her fatalistic coping increases which in turn affects positive driver behaviours. It is not surprising that, tendency to conserve values predicted fatalistic coping. If one thinks that, attributions such as, fate, chance or coincidence are traditional attributions in the Turkish culture (Sümer, 2002; Karancı et al., 1999), it is acceptable that the conservative will 'conserve' these attributions. Also, it has been proposed that, "the ideal conservative" has the tendency to show fatalistic and superstitious behaviours thinking that, one's own control is not in one's hands (Wilson, 1973) as can be seen in the present study. As stated before, positive behaviours were affected positively, whereas aggressive behaviours were affected negatively by these conservative fatalistic tendencies. According to Wilson (1973), the conservative person 'plays safe', preferring for traditional institutions and behaviour. This reflects itself in a tendency to dislike and avoid social disorganization, risk, complexity, etc. It is likely that, the conservative, preferring for order, simplification and control, does not engage in negative emotional behaviours of aggressive violations and be in favour of demonstrating positive behaviours on the roads.

Contrary to conservation of values, resistance to change decreased drivers' positive behaviours and increased aggressive violations. According to Wilson (1973), individuals highly resistant to change do not want to increase the complexity of the experiential world; therefore, have a tendency to be intolerant of change. It is likely that, if the conditions do not satisfy this order, the conservative gets aggressive. Besides, positive behaviours in traffic can be considered as not needed, maybe increasing the risk and disorganization.

It was seen that, the second hypotheses was not supported. The components of conservatism seem not to be related to obeying the rules; they were found to be

related to the emotional or moral aspects of driver behaviour. Furthermore, these two components of conservatism affected traffic behaviour differently. Consequently, one must be aware of which dimension is considered with which effects.

Interestingly, although fate and fatalistic coping were predicted by both intrinsic religious orientation and components of conservatism, these variables only mediated the relationship between conservation of values and traffic behaviour in the present study. Fatalism seems to be a culturally oriented concept, in the sense that, it is clutched in a component of conservatism, which is highly related to conserving the main values about religion, nation, family, etc.

In the present study, the data were gathered through self reports. In terms of accidents involved, near accidents involved and total offences committed, forgetting and underestimating may take place as claimed by Elander et al. (1993).

Furthermore, reports of aggressive and positive behaviours can be embellished (Özkan and Lajunen, 2005a). However, Lajunen and Summala (2003) have shown that, the bias caused by socially desirable responding is very small in DBQ responses. Besides, the forms were filled anonymously by the respondents. One more limitation of the present study is that, the sample was mostly young and male dominated. In the analyses, these two variables were controlled for their potential effects.

The differential effects of two distal factors, i.e. religiousness and conservatism, on the traffic behaviour were shown clearly. It can be claimed that, future studies can demonstrate potential models bridging the gap between the mentioned distal variables with the traffic behaviour. Religion is a profound issue (Glock, 1998) and religions can impose differential restrictions and enforcements upon their adherents leading to distinct consequences which can be seen even in different denominations of the same religion (see Beit-Hallahmi and Argyle, 1997). As a result, cross cultural generalizability can be a problem. In the present study, the psychology of the religion of Islam was studied in a Muslim oriented country. In a similar line, conservatism scales may have the likely disadvantage of having contents specific to the country in

which it is used (e.g. C-Scale of Wilson and Patterson; Conservatism Scale of Mehrabian). So, a new scale is developed for the purposes of the study representing the specified characteristics.

On a general basis, the Turkish culture covers dimensions of religiousness and conservatism, which members of the society are socialized to accept, as can also be seen from the current study. As a result, if these dimensions are parts of the culture, they can be used and kneaded with such behaviours which will lead to positive outcomes in the societal life, specifically in traffic. Generally, internalization of values, obeying the rules, having respect to others, etc. can be emphasized and taught to the members of the society. Specifically, being patient (e.g. in Ramadan), obeying the traffic rules, not violating others' rights etc. can be taught to individuals at mosques, driving courses, etc. As a result, awareness will be created in terms of the relationship of our cultural texture with a crucial topic in our lives, i.e. traffic safety, in a country in which around 5000 deaths take place every year.

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## APPENDICES

### Appendix A- Demographic Information Sheet

Bu anket, yaya ve/veya sürücü olarak trafikte karşılaşılabileceğiniz bazı durumlardaki davranışlarınız ve bazı sosyal tutumlarınızla ilgili soruları kapsamaktadır. Anketi doldurmaya başlamadan önce lütfen her soru grubunun başındaki açıklamaları dikkatlice okuyunuz ve soruları açıklamalara uygun düşecek bir biçimde cevaplayınız. Soruların doğru veya yanlış cevabı yoktur. Önemli olan sizi en iyi tanımlayan cevabı vermenizdir. Cevaplarınız tamamen gizli tutulacaktır ve bireysel değerlendirme yapılmayacaktır. Bu yüzden isim ve kimlik bilgisi vermenize ihtiyaç yoktur. Değerli katkılarınızdan dolayı teşekkür ederiz.

Doç. Dr. Timo LAJUNEN ve Psk. Zümrüt YILDIRIM  
Güvenlik Araştırma Birimi  
ODTÜ Psikoloji Bölümü

- 1- Yaş: \_\_\_\_ 2- Cinsiyet:  Erkek  Kadın 3- Meslek: \_\_\_\_\_
- 4- Eğitim Düzeyi: \_\_\_\_ Okur –Yazar \_\_\_\_ İlkokul \_\_\_\_ Ortaokul \_\_\_\_ Lise  
\_\_\_\_ Yüksekokul \_\_\_\_ Üniversite \_\_\_\_ YüksekLisans/Doktora
- 5- Ehliyetiniz var mı? \_\_\_\_ Evet \_\_\_\_ Hayır 6- Kaç yıldır ehliyet sahibisiniz? \_\_\_\_ yıl
- 7- Geçen yıldan bu yana yaklaşık olarak toplam kaç kilometre araç kullandınız?  
\_\_\_\_\_ km
- 8- Bütün hayatınız boyunca yaklaşık olarak toplam kaç kilometre araç kullandınız?  
\_\_\_\_\_ km
- 9- Genel olarak, ne sıklıkla araç kullanırsınız?
- a. Hemen hemen her gün b. Haftada 3-4 gün c. Haftada 1-2 gün  
d. Ayda birkaç kez e. Çok nadir
- 10- Son üç yılda kaç kez araç kullanırken **aktif olarak** (sizin bir araca, bir yayaya veya herhangi bir nesneye çarptığınız durumlar) kaza yaptınız? (hafif kazalar dahil) \_\_\_\_\_ kez
- 11- Son üç yılda kaç kez araç kullanırken **pasif olarak** (bir aracın ya da bir yayanın size çarptığı durumlar) kaza geçirdiniz? (hafif kazalar dahil) \_\_\_\_\_ kez
- 12- Son üç yılda aşağıdaki trafik cezalarını kaç kere aldığınızı belirtiniz.
- Yanlış park etme \_\_\_\_\_ Hatalı sollama \_\_\_\_\_ Hız ihlali \_\_\_\_\_ Diğer:  
\_\_\_\_\_
- 13- Son üç yılda kaç kez yaya iken **aktif ve/veya pasif olarak** kaza geçirdiniz?  
\_\_\_\_\_ kez



## Appendix B- The Religious Orientation Scale

Aşağıda, kişilerin dini tutum ve davranışlarıyla ilgili sorular verilmiştir. Lütfen, verilen maddeleri dikkatlice okuyunuz. Mensubu olduğunuz dini nasıl hissediyorsanız ve yaşıyorsanız, soruları ona göre yanıtlayınız. Cevaplarınızı her maddenin yanındaki rakamlardan uygun olanını yuvarlak içine alarak belirtiniz. Cevap seçenekleri şu şekildedir:

**1=Kesinlikle Katılmıyorum, 2=Katılmıyorum, 3= Ne Katılıyorum Ne Katılmıyorum, 4= Katılıyorum, 5= Kesinlikle Katılıyorum.**

	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
1. İslamiyetle ilgili bir şeyler okumayı severim.	1	2	3	4	5
2. Camiye giderim, çünkü camiye gitmek, arkadaş edinmeme yardımcı olur.	1	2	3	4	5
3. Bence, devlet her dine eşit uzaklıkta durmalıdır.	1	2	3	4	5
4. İyi bir insan olduğum sürece neye inandığımın (iman ettiğimim) çok da önemi yoktur.	1	2	3	4	5
5. İnsanların benim hakkımda düşünebileceklerinden dolayı, bazen dini inançlarımı görmezlikten gelmek zorunda kalıyorum.	1	2	3	4	5
6. Mensubu olduğum dinin hükümlerini hayatımın her alanında (resmi ve özel) uygulamak isterim.	1	2	3	4	5
7. Dua ederek zaman geçirmek benim için önemlidir.	1	2	3	4	5
8. _____camkiye gitmeyi tercih ederim (Yalnızca bir cevap işaretleyiniz.)					
<b>a.Haftada bir kereden fazla b.Haftada bir kere c.Ayda 2-3 kere d.1-2 ayda bir kere e. Yılda birkaç kere/ birkaç kereden daha az f. Hiç/ Neredeyse hiç</b>					
9. Bence, devlet işlerine dinin karıştırılması kesinlikle kabul edilemez.	1	2	3	4	5
10. Sık sık, Allah'ın varlığını hissediyorum.	1	2	3	4	5
11. Bana göre, eğitim müfredatında din kültürü ve ahlak bilgisi dersi olmalıdır.	1	2	3	4	5
12. Genellikle, esirgenmek (korunmak) ve huzura kavuşmak için dua ederim.	1	2	3	4	5
13. Bütün hayatımı İslami inançlarıma göre yaşamaya çalışırım.	1	2	3	4	5
14. İslamiyetin bana en çok faydasının dokunduğu yanı, kederli ve sıkıntılı zamanlarımda huzur vermesidir.	1	2	3	4	5
15.Bana göre, laiklik devletin olmazsa olmaz şartıdır.	1	2	3	4	5
16. İslamiyet önemlidir, çünkü hayatın anlamıyla ilgili pek çok soruyu cevap verir.	1	2	3	4	5
17. Dini sohbetlere katılmak yerine Kuran okumayı tercih ederim.	1	2	3	4	5



18. Dua, barışı ve mutluluğu sağlar.	1	2	3	4	5
19. Bence, kadınlar her yerde ve her zaman başörtüsü kullanmalıdır.	1	2	3	4	5
20. Dindar bir insan olmama rağmen, dinin günlük yaşantımı etkilemesine izin vermem.	1	2	3	4	5
21. Camiye çoğunlukla arkadaşlarımla vakit geçirmek için giderim.	1	2	3	4	5
22. Hayata karşı olan tutumumun temelinde İslami inançlarım yatar.	1	2	3	4	5
23. Bana göre, resmi dairelerde dini bir sembol taşımak kabul edilemez.	1	2	3	4	5
24. Genellikle camiye giderim, çünkü orada tanıdıkları görmek hoşuma gider.	1	2	3	4	5
25. Genellikle, bana dua etmeyi öğrettikleri için dua ederim.	1	2	3	4	5
26. Yalnızken okuduğum dualar, camideyken okuduklarım kadar önemlidir.	1	2	3	4	5
27. İslamiyet'e inansam da, benim için hayattaki pek çok şey ondan daha önemlidir.	1	2	3	4	5
28. Hukukta ve siyasette, dinin hükümlerinin temel alınmasını isterim.	1	2	3	4	5

### Appendix C- General Conservatism Scale

Lütfen, aşağıda verilen maddeleri dikkatlice okuyunuz. Cevaplarınızı her maddenin yanındaki rakamlardan uygun olanını daire içine alarak belirtiniz. Cevap seçenekleri şu şekildedir: **1= Kesinlikle Katılmıyorum, 2= Katılmıyorum, 3= Ne Katılıyorum Ne Katılmıyorum, 4=Katılıyorum, 5= Kesinlikle Katılıyorum.**

	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
1. Toplum, milli değerlerini korumalıdır.	1	2	3	4	5
2. Değişim, toplumun yararı açısından gereklidir.	1	2	3	4	5
3. Aile ilişkilerimi korumaya önem veririm.	1	2	3	4	5
4. Bir insan kendi yararına olacaksa geleneklere karşı çıkabilir.	1	2	3	4	5
5. Gelenekleri ve görenekleri devam ettirmek toplumun yararı açısından gereklidir.	1	2	3	4	5
6. Ailem ve akrabalarım içerisindeki büyüklerime saygı duyarım.	1	2	3	4	5
7. Aile değerlerine bağlı kalmak geri kafalıdır.	1	2	3	4	5
8. İçinde bulunduğum toplumu ve düzenini olduğu gibi kabul ederim.	1	2	3	4	5
9. Toplumun oluşturduğu ve uyguladığı katı kurallar korunmalıdır.	1	2	3	4	5
10. Aile ve akrabalar içerisinde büyüklere itaat etmek gerikafalıdır.	1	2	3	4	5
11. Toplum milli ve dini değerlerine öncelik vermelidir.	1	2	3	4	5
12. Toplumun dini değerlere bağlı kalması tamamen gereksizdir.	1	2	3	4	5
13. Yaşlıların deneyimlerine saygı gösteririm.	1	2	3	4	5

## Appendix D- Driver Behavior Questionnaire

### Aşağıda verilen durumların her birini ne sıklıkta yaparsınız?

Aşağıda verilen her bir madde için sizden istenen bu tür şeylerin sizin başınıza **NE SIKLIKLA** geldiğini belirtmenizdir. Değerlendirmelerinizi geçtiğimiz yıl boyunca kendinizin araç kullanma davranışlarından ne hatırlıyorsanız onları temel alarak yapınız. Lütfen değerlendirmelerinizi size göre doğru olan seçeneği daire içine alarak belirtiniz. Her bir soru için cevap seçenekleri: **1= Hiç bir zaman 2= Nadiren 3= Bazen 4= Oldukça sık 5= Sık sık 6= Neredeyse her zaman**

		Hiçbir Zaman	Nadiren	Bazen	Oldukça Sık	Sık sık	Neredeyse her zaman
1.	Geri geri giderken önceden fark etmediğiniz bir şeye çarpmak	1	2	3	4	5	6
2.	A yönüne gitmek amacıyla yola çıkmışken kendinizi daha alışkın olduğunuz B yönüne doğru araç kullanırken bulmak	1	2	3	4	5	6
3.	Yasal alkol sınırlarının üzerinde alkollü olduğunuzdan şüphelenseniz de araç kullanmak	1	2	3	4	5	6
4.	Dönel kavşakta dönüş istikametinize uygun olmayan şeridi kullanmak	1	2	3	4	5	6
5.	Anayoldan sola dönmek için kuyrukta beklerken, anayol trafiğine dikkat etmekten neredeyse öndeki araca çarpacak duruma gelmek	1	2	3	4	5	6
6.	Anayoldan bir sokağa dönerken karşıdan karşıya geçen yayaları fark edememek	1	2	3	4	5	6
7.	Başka bir sürücüye kızgınlığınızı belirtmek için korna çalmak	1	2	3	4	5	6
8.	Bir aracı sollarken ya da şerit değiştirirken dikiz aynasından yolu kontrol etmemek	1	2	3	4	5	6
9.	Kaygan bir yolda ani fren veya patinaj yapmak	1	2	3	4	5	6
10.	Kavşağa çok hızlı girip geçiş hakkı olan aracı durmak zorunda bırakmak	1	2	3	4	5	6
11.	Şehir içi yollarda hız sınırını aşmak	1	2	3	4	5	6
12.	Sinyali kullanmayı niyet ederken silecekleri çalıştırmak	1	2	3	4	5	6
13.	Sağa dönerken yanınızdan geçen bir bisiklet ya da araca neredeyse çarpmak	1	2	3	4	5	6
14.	“Yol ver” işaretini kaçırpıp, geçiş hakkı olan araçlarla çarpışacak duruma gelmek	1	2	3	4	5	6
15.	Trafik ışıklarında üçüncü vitesle kalkış yapmaya çalışmak	1	2	3	4	5	6

16.	Sola dönüş sinyali veren bir aracın sinyalini fark etmeyip onu sollamaya çalışmak	1	2	3	4	5	6
17.	Trafikte sinirlendiğiniz bir sürücüyü takip edip ona haddini bildirmeye çalışmak	1	2	3	4	5	6
18.	Otoyolda ileride kapanacak bir şeritte son ana kadar ilerlemek	1	2	3	4	5	6
19.	Aracınızı park alanında nereye bıraktığınızı unutmak	1	2	3	4	5	6
20.	Solda yavaş giden bir aracın sağından geçmek	1	2	3	4	5	6
21.	Trafik ışığında en hızlı hareket eden araç olmak için yandaki araçlarla yarışmak	1	2	3	4	5	6
22.	Trafik işaretlerini yanlış anlamak ve kavşakta yanlış yöne dönmek	1	2	3	4	5	6
23.	Acil bir durumda duramayacak kadar, öndeki aracı yakın takip etmek	1	2	3	4	5	6
24.	Trafik ışıkları sizin yönünüze kırmızıya döndüğü halde kavşaktan geçmek	1	2	3	4	5	6
25.	Bazı tip sürücülere kızgın olmak (illet olmak) ve bu kızgınlığı bir şekilde onlara göstermek	1	2	3	4	5	6
26.	Seyahat etmekte olduğunuz yolu tam olarak hatırlamadığınızı fark etmek	1	2	3	4	5	6
27.	Sollama yaparken karşıdan gelen aracın hızını olduğundan daha yavaş tahmin etmek	1	2	3	4	5	6
28.	Otobanda hız limitlerini dikkate almamak	1	2	3	4	5	6
29.	Trafikte, diğer sürücülere engel teşkil etmemeye gayret göstermek	1	2	3	4	5	6
30.	Geçiş hakkı sizde dahi olsa diğer sürücülere yol vermek	1	2	3	4	5	6
31.	Karşıdan gelen araç sürücüsünün görüş mesafesini koruyabilmesi için uzunları mümkün olduğunca az kullanmak	1	2	3	4	5	6
32.	Gereksiz yere gürültü yapmamak için kornayı kullanmaktan kaçınmak	1	2	3	4	5	6
33.	Arkanızdaki aracın ileriye iyi göremediği durumlarda sinyal vb. ile işaret vererek sollamanın uygun olduğunu belirtmek	1	2	3	4	5	6
34.	Otobanda trafik akışını sağlayabilmek için en sol şeridi gereksiz yere kullanmaktan kaçınmak	1	2	3	4	5	6
35.	Önünüzdeki aracın sürücüsünü, onu rahatsız etmeyecek bir mesafede takip etmek	1	2	3	4	5	6
36.	Sollama yapan sürücüye kolaylık olması için hızınızı onun geçiş hızına göre ayarlamak	1	2	3	4	5	6
37.	Arkadan hızla gelen aracın yolunu kesmemek için sollamadan vazgeçip eski yerinize dönmek	1	2	3	4	5	6
38.	Trafikte, herhangi bir sürücü size yol verdiğinde veya anlayış gösterdiğinde, elinizi sallayarak, korna çalarak vb. şekilde teşekkür etmek	1	2	3	4	5	6

39.	Yayaların karşıdan karşıya geçebilmeleri için geçiş hakkı sizde dahi olsa durarak yol vermek	1	2	3	4	5	6
40.	Aracınızı park ederken diğer yol kullanıcılarının (yayalar, sürücüler vb.) hareketlerini sınırlamamaya özen göstermek	1	2	3	4	5	6
41.	Yeşil ışık yandığı halde hareket etmekte geciken öndeki araç sürücüsünü korna çalarak rahatsız etmemek	1	2	3	4	5	6
42.	Aracınızı kullanırken yol kenarında birikmiş suyu ve benzeri maddeleri yayaların üzerine sıçratmamaya dikkat etmek	1	2	3	4	5	6

## Appendix E- Pedestrian Behaviour Questionnaire

### Aşağıda verilen durumların her birini ne sıklıkta yaparsınız?

Aşağıda verilen her bir madde için sizden istenen bu tür şeylerin sizin başınıza **NE SIKLIKLA** geldiğini belirtmenizdir. Değerlendirmelerinizi son bir yıl içerisinde **YAYA** olarak sergilediğiniz davranışlardan ne hatırlıyorsanız onları temel alarak yapınız. Lütfen değerlendirmelerinizi size göre doğru olan seçeneği daire içine alarak belirtiniz. Her bir soru için cevap seçenekleri: **0= Hiçbir zaman 1= Nadiren 2= Bazen 3= Oldukça sık 4= Sık sık 5= Neredeyse her zaman**

	Hiçbir Zaman	Nadiren	Bazen	Oldukça Sık	Sık sık	Neredeyse her zaman
1. Yaya için trafik ışığı kırmızı yanarken karşıdan karşıya geçmek	1	2	3	4	5	6
2. Başka bir yol kullanıcısına sinirlenip bağırarak	1	2	3	4	5	6
3. Yolun boş olup olmadığını kontrol etmediğiniz için neredeyse bir aracın size çarpması	1	2	3	4	5	6
4. Yaya geçidi, alt geçit veya üst geçidin herhangi biri varken, bunlardan birini kullanmadan karşıdan karşıya geçmek	1	2	3	4	5	6
5. Başka bir yol kullanıcısına sinirlenip el hareketi çekmek	1	2	3	4	5	6
6. Yaya için trafik ışığı kırmızı yanarken farkında olmadan karşıdan karşıya geçmek	1	2	3	4	5	6
7. Trafik kurallarına göre yürümemeniz gereken bir yol kenarından yürümek	1	2	3	4	5	6
8. Bir sürücüye sinirlenip onun arabasına vurmak	1	2	3	4	5	6
9. Dikkatsizlik yüzünden başka bir yayaya veya nesneye çarpmak	1	2	3	4	5	6
10. Yaya geçidini kullanmadan karşıdan karşıya geçerken sürücüleri durmak zorunda bırakmak	1	2	3	4	5	6
11. Bir sürücüyü sinirlendirmek için çok yavaş bir şekilde karşıdan karşıya geçmek	1	2	3	4	5	6
12. Bir bisiklet veya motosiklet sürücüsünün size çarpması veya neredeyse çarpması	1	2	3	4	5	6
13. Daha kısa bir mesafe beklemek amacıyla yolun ortasında durmak için yürümek	1	2	3	4	5	6
14. Derin düşüncelere dalmış olarak yürüdüğünüz için yolunuzu kaybetmek	1	2	3	4	5	6
15. Diğer insanları size yol vermek zorunda bırakarak yürümek	1	2	3	4	5	6
16. Yaklaşan bir aracın hızını yanlış tahmin ettiğiniz için aracın size neredeyse çarpması	1	2	3	4	5	6

## Appendix F- 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. Her bir soru için cevap seçenekleri:

**1= Hiç olası değil 2= Olası değil 3= Hem olası hem de olası değil 4= Olası 5= Büyük olasılıkla (ihtimalle)**

		1	2	3	4	5
1.	Trafik kazası yapıp yapmayacağım çoğunlukla araç kullanma becerilerimin yetersizliğine bağlıdır.	0	0	0	0	0
2.	Trafik kazası yapıp yapmayacağım çoğunlukla araç kullanırken yaptığım riskli davranışlara bağlıdır.	0	0	0	0	0
3.	Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin araç kullanma becerilerinin yetersizliğine bağlıdır.	0	0	0	0	0
4.	Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin araç kullanırken yaptığı riskli davranışlara bağlıdır.	0	0	0	0	0
5.	Trafik kazası yapıp yapmayacağım çoğunlukla kötü şansa (veya şanssızlığa) bağlıdır.	0	0	0	0	0
6.	Trafik kazası yapıp yapmayacağım çoğunlukla bozuk ve tehlikeli yollara bağlıdır.	0	0	0	0	0
7.	Trafik kazası yapıp yapmayacağım çoğunlukla aşırı sürat yapmama bağlıdır.	0	0	0	0	0
8.	Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin aşırı sürat yapmasına bağlıdır.	0	0	0	0	0
9.	Trafik kazası yapıp yapmayacağım çoğunlukla öndeki araçları çok yakından takip edip etmememe bağlıdır.	0	0	0	0	0
10.	Trafik kazası yapıp yapmayacağım çoğunlukla diğer araç sürücülerinin kullandığım aracı yakın takip etmelerine bağlıdır.	0	0	0	0	0
11.	Trafik kazası yapıp yapmayacağım çoğunlukla kadere bağlıdır.	0	0	0	0	0
12.	Trafik kazası yapıp yapmayacağım çoğunlukla kötü hava ve aydınlatma koşullarına bağlıdır.	0	0	0	0	0
13.	Trafik kazası yapıp yapmayacağım çoğunlukla araçtaki mekanik bir arızaya bağlıdır.	0	0	0	0	0
14.	Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin alkollüken araç kullanmasına bağlıdır.	0	0	0	0	0
15.	Trafik kazası yapıp yapmayacağım çoğunlukla diğer sürücülerin tehlikeli bir şekilde hatalı sollama yapmasına bağlıdır.	0	0	0	0	0
16.	Trafik kazası yapıp yapmayacağım çoğunlukla tehlikeli bir şekilde hatalı sollama yapmama bağlıdır.	0	0	0	0	0
17.	Trafik kazası yapıp yapmayacağım çoğunlukla tesadüflere bağlıdır.	0	0	0	0	0

## Appendix G- Ways of Coping Questionnaire

Aşağıda, insanların sıkıntılarını gidermek için kullanabilecekleri bazı yollar belirtilmektedir. Cümlelerin her birini dikkatlice okuduktan sonra, kendi sıkıntılarınızı düşünerek, bu yolları hiç kullanmıyorsanız *hiç bir zaman*, yani 1'i, kimi zaman kullanıyorsanız *bazen*, yani 2'yi, çok sık kullanıyorsanız *her zaman*, yani 3'ü işaretleyiniz.

	Hiç bir zaman	Bazen	Her zaman
1. Bir mucize olmasını beklerim.	1	2	3
2. Çevremdeki insanlardan sorunlarımı çözmemde bana yardımcı olmasını beklerim.	1	2	3
3. Bazı şeyleri büyütmeyip üzerinde durmamaya çalışırım.	1	2	3
4. Başa gelen çekilir diye düşünürüm.	1	2	3
5. Kendimi kapana sıkışmış gibi hissederim.	1	2	3
6. "Her işte bir hayır vardır." diye düşünürüm.	1	2	3
7. Dua ederek Allah'tan yardım dilerim.	1	2	3
8. Elimde olanla yetinmeye çalışırım.	1	2	3
9. Olanları kafama takıp sürekli düşünmekten kendimi alamam.	1	2	3
10. Sıkıntıları içimde tutmaktansa paylaşmayı tercih ederim.	1	2	3
11. Mutlaka bir çözüm yolu bulabileceğime inanıp bu yolda uğraşırım.	1	2	3
12. "İş olacağına varır." diye düşünürüm.	1	2	3
13. Ne yapacağıma karar vermeden önce arkadaşlarımla fikrini alırım.	1	2	3
14. Bunun alın yazım olduğunu ve değişmeyeceğini düşünürüm.	1	2	3
15. Sorunlarıma farklı çözüm yolları ararım.	1	2	3
16. Sorunlarımı adım adım çözmeye çalışırım.	1	2	3
17. Dertlerimden kurtulayım diye fakir fukaraya sadaka veririm.	1	2	3
18. Ne yapacağımı planlayıp ona göre davranırım.	1	2	3
19. Olanlar karşısında "kaderim buymuş" derim.	1	2	3
20. "Benim suçum ne" diye düşünürüm.	1	2	3
21. "Allah'ın takdiri buymuş" deyip kendimi teselli etmeye çalışırım.	1	2	3
22. Çözüm için kendim bir şey yapmak isterim.	1	2	3
23. Hep benim yüzümden oldu diye düşünürüm.	1	2	3