

INVESTIGATING THE ROLE OF PERSONALITY AND JUSTICE  
PERCEPTIONS ON SOCIAL LOAFING

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# **ABSTRACT**

## **INVESTIGATING THE ROLE OF PERSONALITY AND JUSTICE PERCEPTIONS ON SOCIAL LOAFING**

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The main purpose of the study was to investigate the role of Big Five personality dimensions (Extraversion, Conscientiousness, Openness to Experience, Neuroticism and Agreeableness) and justice perceptions (procedural, distributive, informational and interactional justice) on social loafing in a field setting. Another purpose was to explore potential moderation effects of personality and justice dimensions on social loafing.

Data was gathered both from employees and their supervisors working in three leading software companies in Ankara, Turkey. The study was conducted in two phases. In the pilot study, social loafing and perceived coworker social loafing scales were developed. Task visibility scale was adapted to Turkish. The internal consistency reliabilities of the scales were tested by a pilot study with a sample of 53 employees. In the main study, hypothesis and potential moderation effects were tested by gathering data from 156 participants. Results supported only two hypotheses proposing positive relations between extraversion & social loafing and

neuroticism & social loafing. Investigating potential moderators, distributive justice turned out to be moderator on the relation between extraversion and social loafing. Moreover, conscientiousness had moderation effect on the relation between informational justice and social loafing. The results were discussed along with practical implications, limitations of the study and future directions.

Keywords: Social loafing, conscientiousness, extraversion, openness to experience, neuroticism, agreeableness, procedural justice, distributive justice, interpersonal justice, informational justice, task visibility, perceived coworker social loafing.

# ÖZ

## KİŞİLİK VE ADALET ALGILARININ SOSYAL KAYTARMA ÜZERİNDEKİ ROLÜNÜN ARAŞTIRILMASI

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Çalışmanın temel amacı, Beş Faktör Kişilik boyutlarının (Dışadönüklük, Öz denetim/ Sorumluluk, Deneyime Açıklık, Duygusal Denge ve Uzlaşılabilirlik) ve adalet algılarının (yöntem, dağılım, bilgi ve etkileşim adaleti) sosyal kaytarma üzerindeki rolünü bir alan çalışmasında araştırmaktır. Diğer bir amaç da, kişilik ve adalet boyutlarının sosyal kaytarmadaki moderasyon etkilerini incelemektir.

Veri, Ankara, Türkiye'deki önde olan üç yazılım şirketindeki çalışanlar ve onların amirlerinden toplanmıştır. Çalışma iki aşamada yürütülmüştür. Pilot çalışmada (Aşama I), sosyal kaytarma ve iş arkadaşı sosyal kaytarma algısı ölçekleri geliştirilmiştir. Görev görünürlüğü ölçeği Türkçe'ye uyarlanmıştır. Ölçeklerin iç tutarlılık güvenirliği, 53 çalışanın oluşturduğu örneklem grubu ile yapılan pilot çalışmada test edilmiştir. Ana çalışmada (Aşama II), hipotez ve olası moderasyon etkileri, 156 katılımcıdan veri toplayarak test edilmiştir. Bulgular sadece, dışadönüklük ve sosyal kaytarma ile duygusal denge ve sosyal kaytarma arasında pozitif ilişki olacağını öneren iki hipotezi desteklemiştir. Olası moderasyonlar

arařtırıldıđında, dađılım adaletinin, dıřadönüklük ve sosyal kaytarma arasındaki iliřkide moderatör olduđu görölmüřtür. Bunun yanı sıra, öz denetim/sorumluluk boyutunun bilgi adaleti ve sosyal kaytarma iliřkisinde moderasyon etkiye sahip olduđu bulunmuřtur. Bulgular, pratik uygulamalar, çalıřmanın sınırlılıkları ve ileriye dönük öneriler çerçevesinde tartıřılmıřtır.

Anahtar Kelimeler: Sosyal kaytarma, öz disiplin/sorumluluk, dıřadönüklük, deneyime açıklık, duygusal denge, uzlařılabilirlik, yöntem adaleti, dađılım adaleti, etkileřim adaleti, bilgi adaleti, görev görünürlüđu, iř arkadařı sosyal kaytarma algısı

To my parents and to Cemil

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# TABLE OF CONTENTS

PLAGIARISM .....	iii
ABSTRACT .....	iv
ÖZ.....	vi
DEDICATION .....	viii
ACKNOWLEDGEMENTS .....	ix
TABLE OF CONTENTS .....	xi
LIST OF TABLES .....	xiv
LIST OF FIGURES.....	xv
CHAPTER	
1. INTRODUCTION .....	1
1.1. Overview .....	1
1.2. Literature on Social Loafing .....	3
1.2.1. Social Impact Theory .....	3
1.2.2. Identifiability of Individual Effort and Evaluation Approaches .....	4
1.2.3. Dispensability of Effort.....	6
1.2.4. Equity in Effort and Expected Coworker Performance .....	7
1.2.5. Expectancy-Value Approach .....	9
1.2.6. Personal Involvement.....	10

1.2.7.	Group Cohesiveness .....	12
1.2.8.	Individual Differences.....	13
1.2.9.	Combining the theories and models.....	15
1.3.	Literature on Personality .....	16
1.3.1.	Conscientiousness .....	17
1.3.2.	Extraversion .....	19
1.3.3.	Openness to Experience .....	21
1.3.4.	Neuroticism.....	22
1.3.5.	Agreeableness .....	24
1.4.	Literature on Organizational Justice .....	25
1.5.	Moderator Effects.....	34
<b>2.</b>	<b>METHOD .....</b>	<b>37</b>
2.1.	Participants.....	37
2.2.	Design and Procedures .....	38
2.3.	Measures .....	39
2.3.1.	Supervisor Pre-questionnaire .....	40
2.3.2.	Supervisor Survey Form .....	40
2.3.3.	Employee Survey Form.....	42
2.4.	Pilot Study.....	44
<b>3.</b>	<b>RESULTS .....</b>	<b>46</b>
3.1.	Overview .....	46
3.2.	Supervisor Pre-Questionnaire Analysis .....	46
3.3.	Factor Analysis .....	47
3.3.1.	Social Loafing Scale .....	47
3.3.2.	Perceived Coworker Social Loafing Scale.....	48
3.3.3.	Perceived Task Visibility Scale .....	49
3.3.4.	Justice Scale .....	49
3.3.5.	Personality Scale .....	52
3.4.	Reliability Analysis.....	55
3.5.	Computation of Subscales and Analysis of Descriptives.....	56
3.6.	Analysis of Descriptives of Demographic Variables .....	59

3.7.	Hypothesis Testing.....	66
3.8.	Other Analysis.....	74
4.	DISCUSSION .....	79
4.1.	Overview .....	79
4.2.	Results of Hypothesis Testing.....	79
4.3.	Other Findings.....	88
4.4.	Practical Implications.....	91
4.5.	Strengths of the Study .....	92
4.6.	Limitations and Future Directions .....	93
	BIBLIOGRAPHY .....	95

## APPENDICES

A.	SUPERVISOR PRE-QUESTIONNAIRE.....	104
B.	SOCIAL LOAFING SCALE .....	106
C.	SUPERVISOR DEMOGRAPHICS .....	107
D.	PERSONALITY SCALE.....	108
E.	PERCEIVED COWORKER SOCIAL LOAFING SCALE.....	110
F.	PROCEDURAL JUSTICE SCALE.....	112
G.	DISTRIBUTIVE JUSTICE SCALE .....	113
H.	INTERPERSONAL JUSTICE SCALE .....	114
I.	INFORMATIONAL JUSTICE SCALE.....	115
J.	PERCEIVED TASK VISIBILITY SCALE .....	116
K.	SUBORDINATE DEMOGRAPHICS .....	117

## LIST OF TABLES

Table 1 <i>Factor loadings and communalities of social loafing scale items</i> .....	48
Table 2 <i>Results of varimax rotated factor analysis of justice scale items</i> .....	50
Table 3 <i>Results of confirmatory factor analysis of justice scale</i> .....	51
Table 4 <i>Rotated Component Matrix for Personality</i> .....	54
Table 5 <i>Results of confirmatory factor analysis of personality scale</i> .....	55
Table 6 <i>Reliability of Scales</i> .....	56
Table 7 <i>Descriptive Statistics concerning the variables of interest</i> .....	57
Table 8 <i>Descriptive Statistics concerning supervisor demographics</i> .....	60
Table 9 <i>Regression of social loafing on supervisor demographics</i> .....	61
Table 10 <i>Partial correlations of social loafing and supervisor demographics after controlling for the irrelevant variance of Satisfaction with group</i> .....	63
Table 11 <i>Descriptive Statistics concerning individuals' demographics</i> .....	65
Table 12 <i>Regression of social loafing on Big Five Personality dimensions</i> .....	67
Table 13 <i>Partial correlations of social loafing and personality dimensions after controlling for the irrelevant variance of Extraversion.</i> .....	68
Table 14 <i>Hierarchical Regression of social loafing on Big Five Personality dimensions</i> .....	69
Table 15 <i>Hierarchical Regression of social loafing on Big Five Personality dimensions</i> .....	70
Table 16 <i>Regression of social loafing on Justice Dimensions</i> .....	71
Table 17 <i>Moderated Regression of social loafing on distributive justice where task visibility is moderator</i> .....	73
Table 18 <i>Moderated Regression of social loafing on perception of coworker social loafing where distributive justice is moderator</i> .....	74
Table 19 <i>Moderated Regression of social loafing on informational justice where conscientiousness was moderator</i> .....	75
Table 20 <i>Moderated Regression of social loafing on extraversion where distributive justice was moderator</i> .....	76
Table 21 <i>Descriptive Statistics concerning individuals' demographics</i> .....	78

## **LIST OF FIGURES**

Figure 1. Social loafing predicted by informational justice at low, medium and high levels of conscientiousness. ....	76
Figure 2. Social loafing predicted by extraversion at low, medium and high levels of distributive justice .....	77

# CHAPTER 1

## INTRODUCTION

### 1.1. Overview

Today, work groups became essential parts of the way business is being done in organizations. The underlying reason is that groups outperform individuals when the tasks require multiple skills, judgment, and experience. There are two basic mechanisms by which groups do better than individuals when they are teams- aggregation and synergy. The individuals who make up the team bring unique resources to it, such as knowledge, skills, abilities, and energy. It is difficult to find such variety of resources in a single individual. The second mechanism, synergy, is the increase in effectiveness of the group that comes about through collective action or cooperation. By having individuals who have multiple skills and abilities and who can bring out synergy, group work would be better than individual work.

However, there are several drawbacks of group work. The group work takes more time and more resources than the individual work. Groups demand increased communication and more conflicts have to be managed.

For many tasks, teams and groups do worse than the theoretical maximum one would expect, given the resources members bring to the group; a problem termed by Steiner as “process loss”. Steiner proposed two sources of process losses; coordination problems and motivation problems (cited in Kerr & Bruun, 1983).

Coordination problems of the group arise from the failure of individual group members working together on interdependent tasks to coordinate to achieve their shared goal. Motivational issues are related to the willingness or unwillingness of members to perform at the same or above their individual performance levels. Being in a group or team sometimes enhances, sometimes undercuts individual motivation. The social facilitation and the social loafing are two related phenomena in this topic. Karau (1994) defined *social facilitation* as the tendency of expending more effort when working in group settings than when working individually. *Social loafing* is the other phenomenon in which group membership degrades individual motivation. Karau (1994) defined social loafing as the tendency for individuals to expend less effort when working collectively than when working individually.

In the work arena, groups become a major mechanism for organizations to tackle problems that are too large or complex for individuals to solve alone. Hence, in order to make the maximum benefit from the group work, it is important for organizations to determine under which conditions individuals are likely to reduce their effort when working collectively, in other words, under which conditions individuals make social loafing. Therefore, the purpose of this study was to investigate social loafing in relation to personality and justice perceptions of employees in information technologies sector in Turkey, where group work is demanded.

In the following sections, firstly, a brief review of social loafing literature is presented. Then, personality and organizational justice literatures are summarized together with the hypothesized relations with the concept of social loafing. Finally, distributive justice is proposed as a potential moderator on the relation between

social loafing and two other concepts; task visibility and perceived coworker social loafing.

## **1.2. Literature on Social Loafing**

The first study that is important in group performance literature in general and for social loafing in particular was conducted by Ringelmann in 1913 (cited in Kravitz & Martin, 1986). Although his focus was not on the difference of mean performance between individual condition and group condition, he found that mean performance was higher in an individual performance condition than a group condition (Kravitz & Martin, 1986).

This was the study that initiated the social loafing research. The literature on social loafing field includes theoretical and empirical evidence that provide some insight into the nature and possible causes of social loafing. In the following sections, an overview of viewpoints and theories that explain social loafing are provided.

### **1.2.1. Social Impact Theory**

One of the theories that explain possible causes of social loafing is social impact theory. According to Latané's (1981) social impact theory, people are viewed as sources or targets of social impact. When the individual is the target of social forces, increasing the number of people in the target group will diminish the social pressures on each individual because the impact is divided among the group members. As a result, the individual effort of members may decrease in work groups where people work collectively. As the group size increases, the impact on each

individual decreases. Karau and Williams (1993) mentioned the importance of social impact theory as its ability to identify the group size effects on social loafing.

### **1.2.2. Identifiability of Individual Effort and Evaluation Approaches**

Another possible cause of social loafing is the unidentifiability of individual effort in group context. In collective tasks, if the rewards are distributed on egalitarian basis, individuals can “hide in the crowd”, meaning that they can benefit from the group success by making less or even any contribution to the group product. A similar explanation came from Latané, Williams, and Harkins (1979) stating that the reason for individuals to perform less in a collective task was the feeling of being “lost in the crowd”. In conditions where individual group members are rewarded equally for the final group product, people think that they cannot receive their fair share for a high individual performance in reaching a good group product.

Latané, Williams and Harkins (1981) replicated their study in an attempt to demonstrate that identifiability is an important factor in accounting for the decrease in individual performance in group settings. They found that, when individuals were led to believe that their individual effort was identifiable, they exerted high levels of effort. In contrast, when their effort remained unidentifiable, individuals made social loafing. Similar conclusion was made by Price (1987) where identifiability of individual effort did have an impact on the number of opinions that participants made on a cognitive task. Compared to identifiability condition, individuals in unidentifiability condition loafed more.

Task visibility is the term used for defining identifiability of individual effort. Perceived task visibility is an individual’s belief that his/her supervisor is aware of one’s individual effort in a group context (Kidwell & Bennett, 1993). There are

studies that found a negative relation between task visibility and social loafing (George, 1992; Atoum & Farah, 2001; Liden, Wayne, Jaworski & Bennett, 2004).

The role of evaluation on social loafing was investigated in several other studies. Harkins and Szymanski have focused on the concept of “evaluation potential” in this field (Harkins, 1987; Harkins & Szymanski, 1988, 1989). They suggested that social loafing occurs because, in most studies, individual’s outputs cannot be identified in the collective condition; rather their outputs are combined to form the group product.

Harkins (1987) found that participants performed better when their individual performance was evaluated than in no evaluation condition. Harkins and Szymanski (1988) focused on the potential for self-evaluation. They found that the opportunity for individuals to evaluate themselves to an objective standard was adequate to eliminate the loafing effect. Hence, they concluded that being able to compare one’s performance to an objective standard reduced loafing effect.

Harkins and Szymanski (1989) retested this argument. They hypothesized that in the absence of the potential for individual-level evaluation; the possibility of group evaluation by comparing to an objective standard could motivate performance and hence decrease social loafing effect. They found support for this hypothesis and concluded that providing a standard that allowed the group to evaluate its performance eliminated the loafing effect. This study showed that even individual effort remains unidentifiable, social loafing could be reduced by providing an objective standard for overall group performance.

### 1.2.3. Dispensability of Effort

Kerr and Bruun (1983) proposed another possible cause of social loafing; dispensability of individual's effort. They hypothesized that group members exert less effort when working collectively because they feel that their individual inputs are not necessary for a high-quality group product. They termed this motivation loss as *free-rider behavior*. A free rider is someone who benefits from a good group product without contributing to the achievement of it (Hogg & Vaughan, 2005). Hogg and Vaughan (2005) explained the main difference between social loafing and free-rider behavior by emphasizing on the amount of contribution to the group product. They stated that, although social loafers exert low levels of effort in group work, they contribute to the final product. However, free-riders do not contribute to the group product, but they still benefit from group's success.

Kerr and Bruun (1983) explored the effects of group size and member ability on free-rider behavior. They stated that the effects of these variables on dispensability of member effort depended on task demands (conjunctive and disjunctive tasks). In disjunctive tasks, the group could accept the contribution of only one member and usually most able member's performance was adequate for group success. In conjunctive tasks, group success depended on the success of all group members. Hence, in conjunctive tasks, the performance of the least able member was important for the group success. All other things being equal, as the group size increased, the possibility that someone was more (or less) able than a particular individual would increase. Member ability would have opposite effects on perceived dispensability for conjunctive and disjunctive tasks. Since the best members' performance matters on a disjunctive task, the least able members would

be inclined to free-ride. However, on a conjunctive task, the performance of the least able member determines the group performance, and hence best able members think their effort as dispensable on conjunctive tasks. Kerr and Bruun (1983) tested this logic with three experiments and found support for their hypotheses. The results demonstrated that high ability members worked harder under disjunctive task conditions; low ability members worked harder under conjunctive task conditions.

#### **1.2.4. Equity in Effort and Expected Coworker Performance**

Social loafing is a result of motivation loss and there can be several factors that influence individual motivation in groups. Besides the free-rider mechanism which was just explained in the previous section, “sucker effect” was found to be another factor in social loafing. Individuals, who believe that his /her coworkers are loafing, are inclined to withhold effort in a group setting (Kerr, 1983). Kerr (1983) hypothesized that individuals who expect their co-workers to loaf exert less effort in collective conditions to establish an equitable division of labor. In his study, Kerr found that individuals reduce their efforts if they have a partner who was able to contribute to the group but did not. The important implication in this finding is that group members would not reduce their efforts if the failure of the partner is due to lack of ability, not due to free riding. If individuals expect their coworkers to exert less effort even being capable, then they also exert less effort in order not to carry a free rider. This motivation loss is called “sucker effect” (Kerr, 1983).

There are studies that investigated the relation between coworker social loafing and an individual’s own social loafing. Schnake (1991) hypothesized that expectations of coworker social loafing would have negative effect on quantitative task performance, internal work motivation, and job satisfaction in co-acting groups.

As proposed, Schnake (1991) found a negative relation between expectations of coworker social loafing and quantitative task performance in co-acting groups. Comer (1995) proposed a complicated model of social loafing in real work groups which included several antecedents of social loafing such as “a wish to avoid sucker role”, “perceived lack of influence over the task outcomes”, “a wish to avoid appearing too competent”, “perceived dispensability” and “a wish to avoid appearing incompetent”. In this model, she proposed that perceived coworker loafing had impact on social loafing via mediating effects of “wish to avoid sucker role” and “perceived lack of influence over task outcomes”.

Mulvey and Klein (1998) found support for the hypothesis that perceived coworker social loafing was positively related to expected lower effort and the sucker effect.

Williams and Karau (1991) investigated the effect of expected coworker performance on social loafing from another perspective. They emphasized “social compensation” issue in order to explain social loafing. They proposed that under some conditions, people might actually work harder in a collective setting than in a coactive one, in order to compensate for the others in their group. They offered four conditions under which social compensation can occur: (a) when group's performance on the task is important or meaningful to the individual, (b) when the individual wants to continue to remain in the group working collectively, (c) at earlier stages of the group work, and (d) with a relatively small group. Williams and Karau (1991) found that, when working on a task individuals considered meaningful, they compensated for a coworker whom they expected to perform poorly. If the task was not meaningful to the individual, then social compensation did not occur.

In a similar vein, Plaks and Higgins (2000) conducted four experiments in

order to investigate the influence of stereotypic information about teammates on social loafing and social compensation. They obtained social compensation effect when the partner was a member of a group that was stereotypically ineffective in the task situation (a poor partner-situation fit). This finding indicates that individuals socially compensate for their partners when the partner is expected to be a poor performer. The partner performance expectation is formed stereotypically in this case.

Another study that revealed similar findings was conducted by Hart (2000). In this study, the impact of achievement motivation and expected co-worker effort on collective task performance was investigated. Only the participants with low achievement motivation working with a high effort co-worker engaged in social loafing, which indicated a free-rider effect. Similarly, Liden, Wayne, Jaworski and Bennett (2004) found a positive relation between perceived coworker performance and social loafing, contrary to their hypothesis. They stated that this unexpected finding might have been an indication of social compensation.

### **1.2.5. Expectancy-Value Approach**

Karau and Williams (1993) proposed Collective Effort Model (CEM; Karau & Williams, 1993) to explain social loafing. CEM expands the basic assumptions of expectancy-value model of work motivation. Expectancy-value model proposes that individual's motivation to exert effort on a task depends on the instrumentality of their effort in obtaining valued outcomes. CEM suggests the same proposition for collective tasks. When the outcomes of the collective tasks are not perceived as important, relevant, or meaningful, individuals are not likely to work hard. Even when the relevant outcomes are highly valued, individuals would only work hard if

they expect their efforts to lead to performance that will be useful in obtaining those outcomes. If individuals find their effort dispensable in achieving group goals, they are unwilling to work hard. Thus, individual motivation in collective work contexts is affected by the performance of other group members and the distribution of group outcomes across members (Karau & Williams, 1993).

In a similar vein, Shepperd (1993) characterized lost productivity in group settings as a result of low individual motivation. He emphasized that individuals are inclined to withhold effort when they perceived no value to contribute to group performance, when they perceive their effort as dispensable to reach a valued outcome or when they perceive the cost of contributing to be excessive.

These two frameworks are important in explaining the underlying structure of individual motivation in group settings.

### **1.2.6. Personal Involvement**

Brickner, Harkins and Ostrom (1986); George (1992); and Atoum and Farah (2001) declared that in the previous loafing research, mostly conducted in laboratories, participants never worked on a task that was personally involving or that have future consequences for them. Hence, the authors intended to investigate the effects of personal involvement on individual levels of effort in collective tasks in three different studies.

Using this framework, Brickner, Harkins and Ostrom (1986) particularly examined the effects of personal involvement on individual levels of effort in groups. Results demonstrated the moderator effect of task involvement on the relation between identifiability of individual effort and social loafing. Participants, who thought that their efforts (high involvement) would have impact on their personal

outcomes, did not loaf independent of identifiability of their individual effort. However, participants in the low involvement conditions were willing to work only when their effort was identifiable.

George (1992) conducted a field investigation in order to test the hypotheses that both task visibility and intrinsic task involvement would be negatively associated with social loafing. She found support for both of the hypotheses. Moreover, similar to the finding of Brickner et al. (1986), intrinsic involvement moderated the relationship between task visibility and social loafing. At low levels of intrinsic involvement, individuals were inclined to loaf if their effort was not identifiable. This finding implicated that when the task visibility is low, then personal involvement of the employees can be increased in order to prevent social loafing.

Atoum and Farah (2001) examined the generalizability of social loafing among Jordanian College students by manipulating the degree of task involvement and output identifiability on an idea generation task. The findings indicated that the subjects in the low-involvement conditions generated fewer ideas when the output was less identifiable and more ideas when the output was highly identifiable. The subjects in the high involvement condition generated a high number of ideas regardless of the identifiability condition. The results of this study were parallel to the ones presented above.

When these three studies are considered, personal involvement is shown to have effects on social loafing. However, it is hard to conclude whether this effect is moderation or a direct one.

### **1.2.7. Group Cohesiveness**

When the group is composed of respected co-workers and friends, then people are more concerned about the group product and they are more willing to work hard (Karau, 1994). Karau (1994) identified two theories supporting this viewpoint. One of them is social identity theory, which suggests that people may obtain a positive social identity through the successes of groups to which they belong. The second one is social comparison theory, which suggests that individuals compare themselves with other individuals and they also compare the groups to which they belong to other groups for self-validation. These two perspectives suggest that people working in cohesive groups would have more concern for the evaluation of their group's performance compared to non-cohesive group members (Karau, 1994). Karau and Williams (1997) found that members of non-cohesive groups tended to reduce their collective efforts and socially loaf. On the other hand, members of cohesive groups worked just as hard collectively as coactively.

Karau and Hart (1998) proposed group cohesiveness as one key factor that may have an important impact on social loafing. They emphasized the fact that most of the research conducted in this field examined aggregates of strangers in a laboratory setting. However, this tendency limited the generalizability of the results to groups in work organizations. In order to fill this gap, they conducted two studies, which examined individual motivation within both cohesive and non-cohesive groups. They hypothesized that group cohesiveness can reduce or eliminate social loafing when individuals have the opportunity to make useful contributions that have instrumentality to valued outcomes. The results supported their hypothesis. Individuals in non-cohesive groups engaged in social loafing, whereas such effect

was not observed in high cohesive groups. Hence, they concluded that group cohesiveness can eliminate social loafing when individuals' efforts are seen as useful and important to a valued group performance.

### **1.2.8. Individual Differences**

There is considerable amount of research that investigated the situational factors of social loafing (Latané, Williams & Harkins, 1979, 1981; Price, 1987; Kidwell & Bennett, 1993; George, 1992; Atoum & Farah, 2001; Liden, Wayne, Jaworski & Bennett, 2004, etc.). In addition to this line of research, some studies attempted to find an explanation to the causes of social loafing at individual level and have focused on the influence of individual differences on individual motivation within groups.

Hart (2000) focused on the role of achievement motivation on collective task performance. He found that people with high achievement motivation did not engage in social loafing in a group work independent of expected coworker performance. In a similar study, Hart, Karau, Stasson, and Kerr (2004) examined achievement motivation and expected coworker effort in collective task performance in a combined model. They found that individuals who were low in achievement motivation engaged in social loafing in an idea generation task when the expected coworker performance was high. On the other hand, participants who were high in achievement motivation did not engage in social loafing independent of expected coworker effort. They concluded that performing well had high intrinsic value for individuals with high achievement motivation; even such performance was not instrumental in achieving group goals. Hence, those individuals did not engage in social loafing.

Charbonnier, Huguet, Brauer, and Monteil (1998) found that social loafing effect was significant for the individuals who rated themselves as better than others. Huguet, Charbonnier and Monteil (1999) reanalyzed the relation between self – uniqueness and social loafing. Individuals high in self-uniqueness engaged in social loafing on easy tasks and in social compensation on difficult or challenging tasks.

Another individual difference factor investigated was, need for cognition (Smith, Kerr, Markus, & Stasson, 2001). The result of the study revealed that individuals high on the need for cognition did not engage in social loafing on a vigilance task.

Although there are several studies that investigated the role of personality; specifically Big Five personality dimensions, on individual and group performance (Barrick & Mount, 1991; Schmidt & Hunter, 1992; Salgado, 1998; Viswesvaran & Ones, 2000, etc) very few studies were conducted that investigated the role of personality specifically on social loafing. To the knowledge of this researcher, there are two studies on this issue.

Investigating the Big Five personality dimensions and social loafing relation, Bolin (2002) showed that group members' conscientiousness, extraversion and agreeableness were negatively related to social loafing. Openness to experience and emotional stability was not significantly related to social loafing. However, Bolin (2002) stated that these results could not indicate that group members who were conscientious, extravert and agreeable did not make social loafing, because social loafing was measured with self-reports of the group members. He argued that the results just confirmed that group members who were conscientious, extravert and agreeable tended to rate group processes more positively.

Brice (1994) hypothesized that an individual's conscientiousness level will be

positively related to performance on a cognitive brainstorming task. This hypothesis implies a negative relation between the individual's conscientiousness level and his/her social loafing, since the task used in this study was a group brainstorming task that is commonly used in most social loafing research. However, no evidence was found to support this hypothesis.

### **1.2.9. Combining the theories and models**

A summary of the studies conducted on social loafing research is provided above. To conclude, the tendency to engage in social loafing is influenced by a large number of variables, highlighting a number of conditions under which social loafing would be more or less likely to occur. These factors are;

- Group size
- Task difficulty
- Identifiability of individual performance (task visibility)
- Evaluation potential with an objective standard
- Dispensability of effort
- Coworker performance expectations
- Value of outcomes
- Personal Involvement (task meaningfulness and task importance)
- Group cohesiveness
- Individual differences

When the studies conducted in this field are considered, it can easily be argued that past research has heavily focused on situational factors that make social loafing more or less likely. Strong evidence was found about the importance of situation in predicting social loafing. However, there are relatively few studies

examining the role of individual difference factors on social loafing. In order to gather a more comprehensive picture, individual difference factors should also be considered in social loafing research. Current study is designed to investigate the role of individual difference factors on social loafing. Although there are many individual difference factors that may have affect on social loafing, in this research, the focus will be on personality and organizational justice perceptions. The relationship between personality, organizational justice perceptions, and social loafing were analyzed within a field research.

### **1.3. Literature on Personality**

Although a major review of the personality literature is beyond the scope of this paper, a brief review is required. In the first sense, personality refers to the factors inside people that explain their behaviour. In the second sense, it refers to the structures within a person that explain why a person creates his or her unique reputation (Driskell, Hogan & Salas, 1987). In the late 1960's, personality research began receiving major criticisms about the inability of personality in predicting behaviour. Situation, rather than personality was seen as the major predictor of behaviour. There was a slow progress in the research which investigated the role of personality on work behaviours for the past quarter (Ones & Viswesvaran, 2001). Meanwhile, personality psychologists focused on organizing the dimensions of personality. Barrick and Mount (1991) provided a comprehensive overview of the studies about the emergence of 5-Factor Model. The name attached to each dimension show differences from study to study. However, the traits that define each dimension have commonalities. The version validated by McCrae & Costa (1987) will be used in this study. Costa & McCrae's grouping includes following five

factors: Conscientiousness, Extraversion, Openness to experience, Neuroticism and Agreeableness.

For the purposes of this study, the focus is on the relation between big five personality dimensions and job performance. In the following section, each personality dimension and its relation to job performance is presented.

### **1.3.1. Conscientiousness**

The conscientiousness factor reflects dependability; that is being careful, thorough, responsible, organized, and planful (Barrick & Mount, 1991). Moreover, individuals who are high on this dimension are hard-working, achievement-oriented, and persevering.

Several studies investigated the relation between conscientiousness dimension and job performance (Barrick & Mount, 1991; Schmidt & Hunter, 1992; Salgado, 1998). In their meta-analysis, Barrick and Mount (1991) found that conscientiousness shows consistent relations with all job performance criteria (job proficiency, training proficiency, and personnel data) for five occupation groups (professionals, police, managers, sales, and skilled/semi-skilled). In a second meta-analysis study involving largely military samples, Schmidt and Hunter (1992) investigated the relation of conscientiousness with job knowledge and job performance by using two measures of conscientiousness; dependability and achievement orientation. They found that both dimensions had a direct positive effect on job knowledge, which in turn affected job performance and supervisory ratings of job performance. In his meta-analytic study, Salgado (1998) investigated the relation between Big Five personality dimensions and job performance using totally European civil and military samples. The results showed that Conscientiousness and

Emotional Stability were valid predictors of job performance for all occupations and criteria used in Barrick and Mount's (1991) meta-analysis. He also found that Conscientiousness and Emotional Stability showed incremental validity over general mental ability measures. In their research, Viswesvaran and Ones (2000) suggested the presence of a general factor in the model of job performance. They proposed that two individual variables, cognitive ability and conscientiousness, predicted task and contextual performance.

LePine, Hollenbeck, Ilgen and Hedlund (1997) investigated the role of leader and group members' cognitive ability and conscientiousness on team decision accuracy. They proposed that leader and group members' cognitive ability would have interaction effect on team decision accuracy. Similar interaction was also proposed for conscientiousness. The results revealed no main but interaction effects of leader and staff cognitive ability and conscientiousness on team decision accuracy. Decision accuracy was highest when both the leader and members were high on cognitive ability and conscientiousness. Barrick, Stewart, Neubert and Mount (1998) found that teams with higher mean levels of conscientiousness received higher supervisory ratings for team performance. Neuman, Wagner and Christiansen (1999) investigated the relationship between work team effectiveness and personality composition of teams. They found that average conscientiousness level of team members was positively related to team performance.

Contrary to studies of LePine et al. (1997), Barrick et al. (1998) and Neuman et al. (1999), Barry and Stewart (1997) found conscientiousness to be unrelated to processes and outcomes both at the individual and group level.

To sum up, there is strong evidence about predictive validity of conscientiousness on job performance. In the light of the studies that found positive

relation between individual conscientiousness level and job performance, the current study is designed to test the relation between group members' conscientiousness level and social loafing. Social loafing is considered as negative performance, and hence a negative relation is expected between group members' conscientiousness level and his/her social loafing. The following hypothesis is proposed:

**Hypothesis 1:** Individual's conscientiousness score will be negatively related to individual's social loafing score.

### **1.3.2. Extraversion**

Extraversion dimension includes traits like being sociable, gregarious, assertive, talkative, fun loving, affectionate and active. Extraverts can easily communicate with people, and they like being around people.

Barrick and Mount (1991) found that extraversion was a valid predictor for the two occupation groups, which require social interaction; managers and sales. Salgado (1998) reported that extraversion did not reach generalizable and acceptable validity in predicting job performance across occupations and criteria for both military and civil samples in Europe.

Barrick et al. (1998) investigated the role of member extraversion on team viability and found that work teams with higher mean levels of individual extraversion received higher ratings for capability to continue working together.

Bouchard (1969) reported that Extraversion predicted an individual's performance better in an interactive group. Bouchard (1972) found that groups composed of extraverted members performed the best when they are highly motivated (motivator was a cash incentive in this study) and performed worst in low

motivation conditions. Groups composed of introverted members were not affected by motivational manipulations.

Barry and Stewart (1997) found that, at the individual level, extraverted individuals were perceived by other group members as having greater impact on group outcomes compared to their introverted counterparts. At the group level, they found that the proportion of relatively extraverted members was related to the group's focus on task accomplishment and to group performance. They concluded that groups having 20% to 40% high-extraversion members outperform groups with either fewer or more such members. Hence, an average level of extraversion would be the best for group work.

Bradshaw, Stasson, and Alexander (1999) examined the effects of shyness (negative pole of extraversion) on brainstorming performance of groups and individuals. They found that extraverts generated significantly more ideas than shy individuals did. Moreover, results showed that groups with at least one shy member generated fewer ideas than groups composed of extraverts. In a related study, Williams and Sternberg (1988) reported that a group's average extraversion score had a significant relationship with a measure of group product quality. Kichuk and Wiesner (1997) examined the relationships between the Big Five personality dimensions and objective team performance for 3-member product design teams. Successful teams were composed of individuals with higher levels of general cognitive ability, higher extraversion, higher agreeableness, and lower neuroticism than their unsuccessful counterparts.

In the light of these studies, it can be concluded that extraverted members can make significant contributions to the group product (Bradshaw et al., 1999; Williams & Sternberg, 1988). In group settings, extraversion is a valuable personality

dimension in the sense that it helps individuals to reveal their potential performance. However, extraverts are vulnerable to social loafing (Bouchard, 1972). If they are not motivated to perform at high levels, they could cause process loss in the group. To conclude, in this study, a positive relation is expected between social loafing and individual extraversion in work groups where no incentive is present. The related hypothesis is:

**Hypothesis 2:** Individual's extraversion score will be positively related to individual's social loafing score.

### **1.3.3. Openness to Experience**

As the label indicates, openness to experience refers to being open to gaining experience and willing to participate in learning experiences. Common traits associated with this factor are being imaginative, cultured, curious, original, broad-minded, intelligent, and artistically sensitive (Barrick & Mount, 1991).

There are several studies investigating the relation between this personality dimension and job performance both at the individual and at group level. In their meta-analysis, Barrick and Mount (1991) reported that Openness to Experience predicted the training proficiency criterion relatively well, indicating that individuals who are high on this dimension are most willing to engage in learning experiences.

Considering group work context, Comadena (1984) found openness to experience and emotional stability to be valid predictors of individual performance in a brainstorming group. Moreover, group's average openness score was found to be positively related to group's performance (Neuman, Wagner & Christiansen, 1999).

LePine (2003) focused on the role of openness on team performance in case of an unforeseen change in task context. He found that after an unforeseen change in

the task context, performance was superior for teams with members who had higher cognitive ability, achievement orientation, and openness to experience and who had lower dependability. A similar finding was reported by Thoresen, Bradley, Bliese and Thoresen (2004). They investigated the validity of the Big Five personality traits in predicting overall sales performance growth trajectories in maintenance and transitional job stages. They reported that openness to experience might be a critical factor for performance when employees are required to adapt to change but less important for steady state performance.

When all of these studies are considered, it can be concluded that openness to experience is an important personality dimension in predicting individual and group performance. Since individuals high on this trait are open to learning experiences, they would be willing to take on new responsibilities. They would accept each task in the group as a learning opportunity regardless of task difficulty. Hence, in this study, openness to experience is expected to be negatively related to social loafing.

**Hypothesis 3:** Individual's openness to experience score will be negatively related to individual's social loafing score.

#### **1.3.4. Neuroticism**

This factor has been most frequently called Neuroticism or Emotional Stability. Traits commonly associated with this dimension include being anxious, depressed, angry, embarrassed, emotional, worried, and insecure (Barrick & Mount, 1991). Neurotic people are moody and they have unstable emotional state. Neuroticism appears to include negative affect.

Tett, Jackson, and Rothstein (1991) found neuroticism to be negatively related to job performance. Salgado (1998) found evidence that Emotional Stability

is a valid predictor of job performance for all occupations and criteria in both civil and military samples in Europe. Salgado (1998) also showed that Emotional Stability had incremental validity over general mental ability measures.

Neuroticism was found to be negatively related to performance also in group contexts. Comadena (1984) reported that emotional stability predicted individual performance in a brainstorming group. Camacho and Paulus (1995) claimed that people high in dispositional anxiousness would perform poorly when brainstorming in groups compared to individual brainstorming. They found that groups composed of emotionally stable members outperformed groups composed of less stable members. They also stated that part of the productivity loss observed in interactive brainstorming groups could be due to the inhibited performance of people who were uncomfortable with group interaction. Kichuk and Wiesner (1997) found that teams characterized by lower neuroticism were more successful than those composing higher neurotic members were. Barrick, Stewart, Neubert, and Mount (1998) stated that teams higher in emotional stability received higher supervisory ratings for team performance.

Considering studies conducted in performance literature, social loafing can be regarded as negative individual performance. From another perspective, it can be categorized as obstructionism. Obstructionism is one of the components of work place aggression according to the taxonomy made by Baron and Neuman (1996). They defined obstructionism as actions designed to prevent an individual's ability to perform his or her job (e.g. withholding effort). As the definition implies, social loafing is a similar concept with obstructionism. In a related study investigating the role of negative affectivity on work place aggression, Skarlicki, Folger and Tesluk (1999) found that negative affectivity and agreeableness accounted for significant

unique variance in organizational retaliatory behaviour beyond the variance accounted for fairness.

When taken together, these findings provide some evidence for a negative relation between neuroticism and job performance both at individual and at group level. For the purposes of this study, it is expected that individuals who score high on neuroticism trait would engage in social loafing in teamwork.

**Hypothesis 4:** Individual's neuroticism score will be positively related to individual's social loafing score.

### **1.3.5. Agreeableness**

Traits commonly associated with this dimension include being courteous, flexible, trusting, good-natured, cooperative, forgiving, soft-hearted, and tolerant (Barrick & Mount, 1991). As the label and the traits associated with this dimension indicates, agreeableness is an important factor in group performance.

In their meta-analytic study, Tett, Jackson, and Rothstein (1991) found evidence for the ability of agreeableness to predict job performance at the individual level. Neuman and Wright (1999) found that at the individual level, both agreeableness and conscientiousness were significant in predicting performance ratings beyond Skills and Cognitive Ability in teams. Van Scotter and Motowidlo (1996) showed that Extraversion and Agreeableness were more strongly related to the interpersonal facilitation component of contextual performance than they were to task performance. Similarly, in their meta-analytic study, Hertz and Donovan (2000) found that agreeableness exhibits low but stable true validity ( $\rho = .17$ ) for customer service jobs and for the interpersonal facilitation criterion.

Considering group work context, Kichuk and Wiesner (1997) found that teams composed of higher agreeable members were more successful than teams having low agreeable members. Barrick, Stewart, Neubert, and Mount (1998) stated that teams higher in agreeableness received higher supervisory ratings for team performance. Hofmann and Jones (2005) found that collective agreeableness was significantly related to increased consistency in performance over time.

From both perspectives considering social loafing as either negative performance or obstructionism, agreeableness is expected to be negatively related to social loafing in this study.

**Hypothesis 5:** Individual's agreeableness score will be negatively related to individual's social loafing score.

#### **1.4. Literature on Organizational Justice**

Before proposing a relation between justice perceptions and social loafing, it would be necessary to have a brief look at the justice literature.

Organizational justice has become a basic requirement for effective functioning of today's organizations and the personal satisfaction of the individuals they employ (Greenberg, 1990). Colquitt (2001) pointed out that the recognition of the importance of organizational justice has increased and the concept of justice has become a visible construct over the past three decades. At the very beginning of organizational justice research, social justice theories were applied to organizations, which lead to mixed and limited success in explaining the relation between organizational justice and organizational behavior (Greenberg, 1990). More recently, a literature has grown to describe and explain a construct called *organizational justice* (Greenberg, 1990).

Distributive justice (perceived fairness of outcome distributions) is the first construct that emerged from justice research. Much of this research was derived from equity theory of Adams (1965). According to Adams, people compare the ratios of their own perceived work outcomes (e.g. salary, benefits, rewards, status) to their own perceived work inputs (e.g. contributions, education, experience, time spent) to the ratios of comparison other. If the ratios are unequal, people feel inequity and this inequity causes discomfort. The party whose ratio is higher is in the condition of overpayment inequity, and the party whose ratio is lower is in the condition of underpayment inequity. If the ratios are equal, then the parties are in equitable states and they feel satisfaction. The theory claims that individuals who are in inequitable states adjust their own or comparison others perceived outcomes and inputs, in order to pass to a pleasant equitable state. Adams' theory is important because it focused on the fact that people in inequitable states do not simply become dissatisfied with the inequitable condition, but they react in some way.

A second important theory in the field of distributive justice is Leventhal's *justice judgment model* (as cited in Greenberg, 1990). Adams' equity theory proposed the use of an equity rule to determine fairness, whereas Leventhal's model identified two more rules; equality and need. Leventhal criticized equity theory for being a uni-dimensional approach, and proposed *justice judgment model*. According to this model, people use more than one rule when making judgments about fairness of allocation procedures. For example, depending on the goal of the situation, such as maintenance of social harmony or maximization of performance, either equal reward distribution or equitable reward distribution would be employed respectively. Allocation of rewards according to needs of individuals is also another way for evaluation of fairness.

Adams' (1965) and Leventhal's approaches to organizational justice focused on the fairness of outcome allocations. However, they have failed to answer questions about the fairness of the procedures used to make decisions in work place. Attempting to answer such questions, the attention was focused on procedural justice: that is, the perceived fairness of the rules and procedures used to make organizational decisions (Greenberg, 1990).

Thibaut and Walker (1975) conducted a series of pioneering studies on reactions to the dispute-resolution process that differed with respect to two types of control, what they termed as process and decision control. Process control is the amount of control offered to disputants during information presentation stage. Decision control is the amount of control they had over directly determining the outcomes. Results of the study revealed that individuals found the outcomes reasonably fair when they had process control, even if they did not have decision control and the outcome was not to their advantage.

Research focusing on process control showed that people perceive outcomes resulting from procedures offering control as fairer and better acceptable than identical outcomes resulting from procedures that deny process control (Walker, Lind & Thibaut, 1979). This finding was found to be generalizable to a variety of settings (Lind & Tyler, 1988; Tyler, 1987).

Leventhal and associates (Leventhal, 1980; Leventhal, Karuza, & Fry, 1980) expanded the work of Thibaut and Walker (1975), and they proposed that individuals used several procedural elements to evaluate the fairness of outcome-distribution procedures. Decision makers' adherence to these elements lead to the formation of procedural justice evaluations. These elements are consistency, bias-suppression, accuracy, correctability, representativeness, and ethicality of procedures used

(Leventhal, 1980). Similarly, Folger and Bies (1989) identified responsibilities of decision makers in order to ensure procedural justice in organizations. These responsibilities include giving adequate consideration to employees' viewpoints, suppressing biases, using consistent decision-making criteria, providing timely feedback, giving justification, being truthful in communication, and treating employees with courtesy and civility.

Bies and Moag (1986) have shown that judgments of procedural justice are influenced by two important factors: how people are being treated by decision makers and how formal decision making procedures are explained. This finding indicates that the perceptions of procedural justice are influenced by the procedures themselves, as well as the explanations given to those procedures. Hence, with this study, Bies and Moag (1986) were first to introduce the concept of interactional justice and they proposed interactional justice to be considered as a third dimension in the justice literature. In their study of expectations of interpersonal treatment during recruitment process, Bies and Moag (1986) identified four criteria for interactional justice. Accordingly, perceptions of interactional justice depend on whether decision makers are respectful and polite, whether they are honest and not engaging in deception, whether they justify and explain the decision they made, and whether they prevent using improper remarks and comments. Bies and Moag (1986) explained the term interactional justice as people's sensitivity to "the quality of interpersonal treatment they receive during enactment of organizational procedures" (p.44). Moorman (1991) found interactional justice to be the only source of justice that related to organizational citizenship behaviour and shown that interactional justice is more important than formal procedures in determining employee behaviour in organizations.

Although some researchers have treated interactional justice as an independent justice dimension, others considered it as either a part of distributive or procedural justice. Greenberg (1993) suggested to separate interactional justice in two components; interpersonal and informational justice. Informational justice contains interpersonal facets of procedural justice, where people are given detailed information about the procedures that affect them. On the other hand, interpersonal justice contains interpersonal facets of distributive justice where individuals get their fair share of interpersonal treatment.

Greenberg (1994) demonstrated the impact of interpersonal and informational justice on the acceptance of a new organizational decision. This study is important because it supported Greenberg's earlier suggestion about the necessity of distinguishing between interpersonal and informational justice.

In their study emphasizing on the importance of interpersonal justice in a recruitment process, Shapiro, Buttner and Bruce (1994) found that applicants perceived the decision and the recruitment process as fair when they were provided with adequate and specific information about the reasons of their refusal. On the other hand, if the applicants were not given adequate explanations about the decision, perceptions of unfairness were formed.

Masterson, Lewis, Goldman and Taylor (2000) investigated whether social exchange relationships mediated the relation between procedural and interactional justice and work related outcomes. The results of their study indicated that leader-member exchange mediated the relation between interactional justice perceptions and supervisor-related outcomes. Moreover, the relation between procedural justice and organization-related outcomes was mediated by perceived organizational support.

Simons and Roberson (2003) examined the effects of aggregate justice perceptions on the organizational outcomes such as organizational commitment, employee turnover intentions, discretionary service behavior and customer satisfaction. The results of the study supported the hypothesized impact of aggregated justice perceptions on organizational outcomes. Employee commitment and satisfaction with supervisor were common mediators in the relation between aggregated justice perceptions and organizational outcomes.

The recent meta-analytic review of organizational justice research addressed several questions concerning four dimensions of organizational justice (Colquitt, Conlon, Wesson, Porter & Ng, 2001). Colquitt et al. (2001) dealt with three main questions regarding construct discrimination, understanding additional conceptualizations of organizational justice and understanding employee reactions to fairness/unfairness. The results of their meta-analysis revealed that all of the four dimensions of organizational justice (i.e. distributive, procedural, interpersonal and informational justices) are distinct from each other. Interpersonal and informational justice explained incremental variance in justice perceptions. Moreover, procedural justice perceptions and interpersonal justice had significant unique effects on justice perceptions over the variance explained by distributive justice. Considering employee reactions to fairness, the correlation between each of the four dimension of organizational justice and nine organizational outcomes (i.e. outcome satisfaction, job satisfaction, organizational commitment, trust, evaluation of authority, organizational citizenship behavior, withdrawal, negative reactions, and performance) were meta-analyzed. Among these outcomes, organizational citizenship behavior, negative reactions, and performance are the most related ones with social loafing. Colquitt et al. (2001) found organizational citizenship behavior

to be weakly related to distributive justice, and moderately related to procedural, interpersonal and informational justice. Performance had weak correlations with distributive, interpersonal, and informational justice and moderate correlation with procedural justice. Negative reactions were found to be moderately correlated with each of the four dimensions of organizational justice. As a result, all of the four dimensions of organizational justice have weak to moderate correlations with organizational outcomes that are related to social loafing.

Skarlicki, Folger and Tesluk (1999) stated that if employees perceive the decisions and actions that affect them as unfair, they experience feelings of anger. The feeling of unfair treatment can cause employees to become upset and to respond to this unfair situation. They usually feel a desire to punish those who are seen as responsible for the problem. They may engage in acts against the organization, such as theft, vandalism, absenteeism, and psychological withdrawal (Skarlicki & Folger, 1997). Skarlicki and Folger (1997) and Skarlicki, Folger, and Tesluk (1999) found significant relationship between organizational justice and organizational retaliation behaviour. As stated before, according to Baron and Neuman's (1996) taxonomy, social loafing may be categorized as obstructionism and may be a way in which employees respond to perceived injustice in their organization.

In her conceptual model, George (1995a) hypothesized employees' perceptions of equity to be negatively related to their propensity to withhold effort. When perceptions of equity is considered as distributive justice and propensity to withhold effort is referred as social loafing, then, in her study, George (1995a) proposed a negative relation between distributive justice and social loafing.

George (1995b) investigated the effects of rewards and punishments on social loafing. As hypothesized, contingent reward from supervisors was negatively

associated with social loafing, whereas non-contingent punishment was found to be positively related to social loafing. In this case, contingent rewards, referring rewards based on work contributions, were perceived as procedurally fair and this led to a decrease in social loafing. On the other hand, non-contingent punishment, referring punishment that is not based on work behaviours, were perceived as procedurally unfair and this caused an increase in social loafing. Hence, this study inherently showed a negative relation between procedural justice and social loafing.

In their field study investigating the role of justice perceptions and negative affectivity on deviant employee behavior, Aquino, Lewis, and Bradfield (1999) found interactional justice perceptions to be the strongest predictors of deviant behaviors directed against both the organization and other individuals than either distributive or procedural justice. These results revealed that, when forming justice perceptions, individuals cared more about interpersonal concerns than either outcomes received or the procedures used to determine those outcomes (Aquino, Lewis & Bradfield, 1999). Moreover, perceptions of interactional injustice led employees to engage in deviant behaviors.

Lim (2002) proposed that the relation between organizational justice and cyberloafing was mediated by the neutralization technique called metaphor of the ledger. Specifically, when individuals perceive their organization to be distributively, procedurally and interactionally unjust, they engage in cyberloafing and in order to legitimize their act, they invoke the metaphor of the ledger as a neutralization technique.

In her study analyzing antecedents and consequences of organizational justice, Murphy (1997) found a negative relation between distributive justice and

social loafing, concluding that social loafing is a potential consequence of distributive injustice.

Murphy, Wayne, Liden, and Erdogan (2003) investigated the mediating effects of social exchange relationships on the relation between perceptions of interactional and distributive justice and social loafing. Murphy et al. found support for their mediating model, which indicates a relation between justice perceptions and social loafing mediated by social exchange relations.

Liden, Wayne, Jaworski, and Bennett (2004) investigated social loafing by testing a multilevel model, including individual and group level antecedents of social loafing. Distributive and procedural justices were found to be negatively related with social loafing.

In the light of these studies focusing on the role of organizational justice on social loafing, a negative relation is expected between social loafing and each of the four forms of organizational justice. The following hypotheses are proposed:

**Hypothesis 6:** Perceptions of distributive justice will be negatively related with social loafing.

**Hypothesis 7:** Perceptions of procedural justice will be negatively related with social loafing.

**Hypothesis 8:** Perceptions of interpersonal justice will be negatively related with social loafing.

**Hypothesis 9:** Perceptions of informational justice will be negatively related with social loafing.

## 1.5. Moderator Effects

Depending on the organizational justice literature, it is concluded that individuals will be motivated to spend high levels of effort when they feel that they are receiving an equitable amount of resources/rewards from the organization relative to their inputs. However, what if the individuals' input is unidentified? Then, they may have the feeling or perception that they will not be able to get their fair share of resources/ rewards, and hence they may have a tendency to reduce their effort. Task visibility is the term used for defining identifiability of individual effort. As mentioned before, there are studies that showed the importance of identifiability of individual effort in reducing social loafing (Williams, Harkins & Latané, 1981; Price, 1987; George (1992); Atoum & Farah, 2001; Liden, Wayne, Jaworski & Bennett, 2004). The main conclusion in these studies is that if an individual perceives his/her individual effort as unidentifiable, he/she will engage in social loafing. Therefore, there is a negative relation between task visibility and social loafing. However, a potential moderator exists in this relation; distributive justice.

The negative relation between task visibility and social loafing should be significant only at high distributive justice conditions. When both distributive justice and task visibility are high, individuals will not engage in social loafing because their effort is identifiable and they are receiving an equitable amount of resources/rewards compared to their inputs. However, when distributive justice is low, since individuals are not receiving an equitable amount of resources/rewards compared to their inputs, the relation between task visibility and social loafing may become insignificant. With this viewpoint, distributive justice is expected to moderate the relation between task visibility and social loafing and the following hypothesis is proposed.

**Hypothesis 10:** Distributive justice will have moderator effect on the relation between perceptions of task visibility and social loafing.

When distributive justice is high, there will be a negative relation between task visibility and social loafing. When distributive justice is low, no relation is expected between perception of task visibility and social loafing.

Another factor that has an impact on social loafing is perceived coworker social loafing, which refers to the perception that one's group members are contributing less than they could to the group. Individuals, who believe that his /her coworkers are loafing, are inclined to withhold effort in a group setting. However, if that individual perceives the allocation of resources and rewards as fair, even if his/her coworkers spend low levels of effort, s/he will be motivated to perform at high levels and to compensate for the poor performance in order to take credit for a good group performance. Williams and Krau (1991) identified two motives for social compensation; altruistic concerns and concerns about benefits after a good group performance. The first motive suggests that individuals may compensate for a free rider just to protect their coworkers from poor evaluation. The second motive, which is more of our interest, suggests that when working with a free rider, if group product is poor, one can blame loafing co-worker; and if group product is good, individual can take credit for it. The possibility to gain benefits from a good group performance might be a motivating factor to work harder even there is a free rider in the group. However, there is an important point to mention. In order for an individual to carry a free rider, s/he must believe that s/he will take what s/he deserves at the end of good group performance. If the individual perceives low instrumentality between group performance and individual rewards, then s/he would not be motivated to compensate for a loafing coworker. In other words, in order for an individual to work

hard even with a loafing coworker, the individual must perceive distributive justice in the organization.

With this viewpoint, the following hypothesis is proposed.

**Hypothesis 11:** Distributive justice will have moderator effect on the relation between perceptions of coworker social loafing and individual's social loafing. When distributive justice is high, there will be a negative relation between perceptions of coworker social loafing and individual's social loafing.

In addition to the hypotheses stated above, potential interaction effects of personality and justice on social loafing will be explored throughout this study. In their research Skarlicki, Folger, and Tesluk (1999) investigated the moderation effect of personality on the relation between fairness and retaliation. Negative affectivity and agreeableness were found to moderate the relation between justice perceptions and retaliation. The combination of low distributive and low interactional justice was associated with retaliatory behavior at high levels of negative affectivity. The opposite effect was observed for agreeableness. At low levels of agreeableness, the interaction of low distributive and low interactional justice was associated with retaliatory behavior. This study is important for showing that justice perceptions do not affect every individual in the same way. Hence, potential interaction effects of personality and justice perceptions will also be investigated in this research.

## **CHAPTER 2**

### **METHOD**

#### **2.1. Participants**

The data for this study were collected from three participating organizations functioning in software sector in Ankara, Turkey. Since this study requires analyzing group work, already existing work groups that are similar to each other in terms of major functions were selected. Data were gathered from both supervisors and subordinates of these work groups. Base line employees and their first line supervisors were selected.

Originally a total of 33 supervisors accepted to participate and 32 of them returned their supervisor forms. These 33 supervisors had a total of 184 subordinates. Among these, 156 subordinates returned their forms. There were no missing values in supervisor forms. However, there were missing values in five of the subordinate forms, which were deleted from further analysis, remaining with a sample size of 151.

Among 32 supervisors, 23 (72 %) were male and 9 (28%) were female. Among 151 subordinates, 105 (69.5%) were male and 46 (30.5%) were female. The age range of supervisors was 25-45, with a mean of 32.66 and standard deviation of 5.05. The age range of subordinates was 22-52, with a mean of 28.56, and standard deviation of 4.72.

The education level of supervisors was quite high, with a minimum of university graduates. 18 (56.3%) reported having a bachelors degree, 14 (43.7%) reported having a masters degree. Among the subordinates, 7 (4.6%) of them reported being high school graduates, 93 (61.6%) reported having a bachelors degree, 51 (33.8%) reported having a masters degree.

The tenure of supervisors in the current organization ranged from 1 to 14 years, with a mean of 5.15 years and standard deviation of 2.99. The subordinates' tenure in the current organization ranged from 3 months to 13 years, with a mean of 3.53 years and standard deviation of 2.85. When the total time spent working with the current group is analyzed, it ranged from 3 months to 18 years, with a mean of 5.03 years for supervisors; and it ranged from 2 months to 10 years with a mean of 2.07 years for subordinates. The total time spent working with current supervisor ranged from 1 month to 12 years, with a mean of 2.07 years.

## **2.2. Design and Procedures**

Data were collected through the use of questionnaires distributed to employees and their direct supervisors. The employee questionnaire assessed Big Five Personality dimensions (Conscientiousness, Agreeableness, Openness to experience, Extraversion and Neuroticism), perceived coworker social loafing, organizational justice (procedural justice, distributive justice, interpersonal justice and informational justice), perceived task visibility and demographics. The supervisors were given two questionnaires. The first one was a pre-questionnaire. Since the social loafing of each employee was measured with ratings of supervisors, supervisor-employee interaction must be high in order to gather reliable social loafing data from supervisors. Hence, prior to social loafing questionnaire,

supervisors were given a pre-questionnaire to assess the employee- supervisor interaction level. The second questionnaire assessed each employee's social loafing as well as supervisor demographics.

Data were collected from the participating organizations during work hours on a voluntary basis. The questionnaires were presented in envelopes and participants were asked not to write their names on the questionnaires with an aim of providing anonymity. In order to be able to match employee questionnaire and supervisor data, the supervisors were asked to assign a serial number to each subordinate and announce these numbers to their group. Before completing the questionnaire, each subordinate noted his/her own serial number on survey form. Supervisors also did not write their subordinates names on questionnaire, rather they noted each subordinates serial number. By this way, it was possible to match supervisor and employee questionnaires with assuring confidentiality of responses.

### **2.3. Measures**

There were three survey forms used in this study. One was given to employees and the other two were filled by supervisors. The employee survey included scales for: big five personality dimensions, perceived coworker social loafing, procedural justice, distributive justice, interpersonal justice, informational justice, and task visibility. There was also a section for demographic characteristics, such as gender, age, tenure, group size, and satisfaction with group.

One of the supervisor survey forms was a pre-questionnaire, including questions about interaction level of supervisor with his/her group. The second form was composed of two parts; social loafing scale and demographics.

### **2.3.1. Supervisor Pre-questionnaire**

As mentioned before, in order to rely on the social loafing data gathered from supervisors, it should be assured that supervisors have opportunity to observe their subordinates during work hours and they spent time working together. In order to assess group-supervisor interaction, supervisors were asked to indicate;

- what percent of the day they spent working with their subordinates,
- whether or not all group members worked in the same location,
- whether they make performance evaluation of all subordinates or not.

Moreover, supervisors were given a task visibility scale that measured whether individual effort of each subordinate was identifiable. Team leader's perception of task visibility scale included 6 items adapted from George (1992). The Cronbach's alpha reliability for original scale was .84 (George, 1992) and for the adapted scale was .87. Supervisor pre-questionnaire can be seen in Appendix A.

### **2.3.2. Supervisor Survey Form**

Supervisor survey form is composed of two parts; social loafing scale and demographics.

*Social Loafing Scale:* A scale was developed to assess social loafing of each individual employee. Supervisors were asked to rate each of their group members on the scale items. Responses were made on a five-point scale ranging from (1) strongly disagree to (5) strongly agree.

The development of the scale included two stages. In the first stage, seven items of the scale developed by George (1992) were adapted to Turkish. During the adaptation process, firstly, the scale items were translated into Turkish by three

different translators. Then, in order to test face validity, other three experts rated each translated scale item on a 10-point scale according to their semantic similarity with the original scale items. The items with the highest average rating were taken for the final version. The Cronbach's alpha reliability for original scale was .93 (George, 1992).

In the second stage, in order to increase content validity of social loafing scale, additional items were developed. Prior to item development, structured interviews were held with eight supervisors from two different organizations. The interview questions were;

- How do you identify a social loafer in your group?
- Can you identify a person whose individual performance is high, but makes social loafing in a group setting? What kind of behaviors and characteristics of that person helps you to identify?
- Are there any personal characteristics that differentiate a social loafer from others?
- Are there any social loafers in your current group? How did you identify that person and what did you do to prevent social loafing?

According to the answers of supervisors, nine additional items were developed and added to the scale. After that, four judges (Masters Students from Industrial and Organizational Psychology Department) rated each of the 16 items on a 10-point scale whether the item measures social loafing or not. Three items were found to be irrelevant and removed. Hence, final version of the scale included 13 items (see Appendix B).

Demographics: Supervisors were asked to indicate their age, gender, education level, tenure, total job experience, duration of work with their current

group, duration of supervision to the current group, duration of current group existence, number of group members, whether s/he had been a supervisor for another group before, and satisfaction with group. The scale is given in Appendix C.

### **2.3.3. Employee Survey Form**

*Personality:* Adapted version of the Big Five Inventory (BFI: Benet-Martínez & John, 1998; adapted by Sümer, Lajunen, Özkan (2005)) was used to measure big five personality traits (see Appendix D). BFI consists of a list of 44 adjectives. The participants were asked to rate whether each adjective reflected their characteristics or not. Responses were made on a five-point scale ranging from (1) strongly disagree to (5) strongly agree. Conscientiousness, Agreeableness, and Openness to experience were measured by 9 items each, and Extraversion and Neuroticism were measured by 8 items each. Cronbach's alpha reliabilities for adapted version was at moderate levels; .66 for extraversion; .64 for agreeableness, .75 for conscientiousness, .72 for neuroticism; and .77 for openness (see Sümer, Lajunen, Özkan, 2005).

*Perceived Coworker social loafing:*

Liden, Wayne, Jaworski, and Bennett (2004) adapted nine of the 10 items from the social loafing scale developed by George (1992) in order to measure perceived coworker social loafing. The Cronbach's alpha reliability for this adapted version was found to be .96 (Liden, Wayne, Jaworski & Bennett, 2004). In the current study, the 13-item scale developed to measure social loafing was adapted to assess individual perceptions of coworker social loafing (see Appendix E). Participants were asked to rate the extent to which their group members tend to engage in social loafing on the 13-item, 5 point scale, ranging from (1) strongly disagree to (5) strongly agree.

Organizational Justice: Organizational justice was measured by using the adapted version of the scale, which was developed by Colquitt (2001) and adapted by Karabay (2004) to Turkish. The scale was composed of four subscales; procedural, distributive, interpersonal and informational justice, with a total of 20 items.

Procedural Justice: Procedural justice scale was composed of 7 items measuring the perceived fairness of organizational procedures used in decision-making of employee outcomes (see Appendix F). Cronbach's alpha reliability for original scale that was calculated with data collected in a field study was .93 (Colquitt (2001)). Cronbach's alpha reliability for adapted version of the scale was .89 (Karabay, 2004).

Distributive Justice: Distributive justice scale was composed of 4 items that measured the extent to which individual employees perceive the distribution of outcomes in the organization as fair (see Appendix G). Cronbach's alpha reliability for original scale was .93 (Colquitt (2001)) and it was .89 for adapted version (Karabay, 2004).

Interpersonal Justice: Interpersonal justice scale was composed 4 items that assessed whether individual employees were being treated with respect and politeness by their supervisors (see Appendix H). Cronbach's alpha reliability for original scale was .92 (Colquitt (2001)).

Informational Justice: Informational justice scale was composed of 5 items that assess whether supervisors communicate and share information with their subordinates about the decisions that affected them in an honest and open manner (see Appendix I). Cronbach's alpha reliability for original scale was .90 (Colquitt (2001)). In the adapted version interpersonal and informational justice items loaded onto one factor and their reliability was .95 (Karabay, 2004).

Perceived task visibility: Perceived task visibility was measured with a 6-item scale adapted from the scale developed by George (1992). The Cronbach's alpha reliability for original scale was .84 (George, 1992).

Scale items refer to the individual employee's belief about the extent to which their supervisors were aware of how much effort they exerted on the job and how hard they worked. The scale was adapted to Turkish in this study. During adaptation process, firstly, the scale items were translated into Turkish by three different translators. Then, other three experts rated each translated scale item on a 10 point scale according to their semantic similarity with original scale items. The items with the highest average rating were taken for the final version (see Appendix J).

Demographics: Individual employees were asked to indicate their age, gender, education level, tenure, total job experience, duration of work with their current supervisor, duration of work with their current group, duration of current group existence, number of group members, and satisfaction with group. The scale is given in Appendix K.

## **2.4. Pilot Study**

Since perceived task visibility scale and team leader's task visibility scales were adapted from George's (1992) original scale; and social loafing and perceived coworker social loafing scales were semi-adapted, a pilot study was conducted to test their reliabilities. After the pilot study, these scales were applied to a larger participant group.

In the pilot study, the scales were administered to a total of 53 employees from two of the participating organizations. The Cronbach's alpha reliability was

found to be .96 for 13-item social loafing scale; .93 for 13-item perceived coworker social loafing; .85 for 6-item perceived task visibility; and .92 for 6-item team leader's perception of task visibility scales. Since the reliability values were quite high, no modifications were made on the scales, and they were used for further data collection.

## **CHAPTER 3**

### **RESULTS**

#### **3.1. Overview**

First of all, supervisor pre-questionnaires were checked in order to assess supervisor- employee interaction levels. After deciding on the scales that could be included in the analysis, each scale was factor analyzed in order to figure out the factor structure. After determining the underlying factors within each scale, reliability of each factor was computed. Then, new variables were formed from means of these factors. The names of newly formed variables are; social loafing (SL), perceived coworker social loafing (CSL), task visibility (TV), process control (PC), procedural justice (PJ), distributive justice (DJ), interpersonal justice (INTJ), informational justice (INFJ), extraversion (E), conscientiousness (C), agreeableness (A), neuroticism (N), and openness (O). Descriptives and correlations between these variables were analyzed. Hypotheses and potential moderation effects were tested with several regression analyses.

#### **3.2. Supervisor Pre-Questionnaire Analysis**

Before starting analysis, supervisor pre-questionnaires were checked to assess supervisor- employee interaction levels. Using the first three items on the pre-questionnaire and average score from team leader's task visibility scale, a total score

was calculated. All of the supervisor questionnaires got total scores above the average. Hence, all of them were included in further analysis.

### **3.3. Factor Analysis**

#### **3.3.1. Social Loafing Scale**

First of all, the assumptions of factor analysis (univariate and multivariate outliers, normality, linearity, multicollinearity and singularity, and Factorability of R) were tested. 8 cases turned out to be outliers and they were deleted from further analysis. The sample size decreased from 151 to 143 cases. After assumption testing, explanatory factor analysis was conducted with 13-item social loafing scale. The results revealed a three-factor solution. When the distribution of items was analyzed, three scale items (2nd, 4th and 5th items), which were newly developed, seemed to be related with job performance, rather than social loafing. Hence, these three items were removed and principal component analysis was repeated with 10-items. Results revealed one factor solution, explaining 60.84% of total variance with an eigenvalue of 6.08. Factor loadings and communalities for each item are given in Table 1. In order to confirm 10-item one factor solution, a confirmatory factor analysis was conducted with Lisrel 8.51 (Jöreskog & Sörbom, 2001). Results revealed satisfactory goodness of fit indices,  $\chi^2/df = 2.67$ , GFI= .90, NFI= .92, CFI= .94. Since high fit indices indicate confirmation for one factor solution, it was accepted as the final factor structure.

**Table 1** *Factor loadings and communalities of social loafing scale items*

<b>Variables</b>	<b>Loading</b>	<b>Communality</b>
Defers responsibilities he or she should assume to other group members	.70	.49
Do the tasks s/he wants/ concentrates on the part of the job s/he wants instead of doing the assigned task when there are other people to do it	.73	.53
Defers responsibilities he or she should assume to other employees	.84	.70
Puts forth less effort on the job when other employees are around to do the work	.81	.65
Does not do his or her share of the work	.80	.64
In group work, puts less effort than other members of his/her group	.85	.73
Takes it easy if other employees are around to do the work	.86	.73
Spends less time in helping other departments or customers if other group members are available for help	.69	.47
Pretends to be working but not accomplishes his/her part of the job if other employees are doing the tasks	.82	.66
Does his/her best to accomplish a task in group or team work	.70	.49

### 3.3.2. Perceived Coworker Social Loafing Scale

In order to figure out the factor structure of perceived coworker social loafing scale, explanatory and confirmatory factor analysis were conducted. First of all, the assumptions of factor analysis were tested. Then, principal component analysis was conducted with 13-item-perceived coworker social loafing scale. The results revealed two factors. First factor explained 49.98% of total variance with an eigenvalue of 6.50, and second factor explained 7.94% of variance with an eigenvalue of 1.03. This two factor model was confirmatory factor analyzed with Lisrel 8.51 (Jöreskog & Sörbom, 2001). Goodness of fit indices were satisfactory,  $\chi^2/df = 1.51$ , GFI = .91,

NFI= .96, CFI= .98. However, the correlation between factors was high ( $r = .86$ ), indicating that these two factors seem to be sub-components of one factor. Hence, one factor model was tested against the two-factor model. The model showed good fit,  $\chi^2/df = 1.5$ , GFI= .91, NFI= .96, CFI= .98. There was not a significant change in overall fit between two- factor and one-factor models,  $\Delta\chi^2(1) = 1.96$ ,  $p > .05$ . Hence, simplest model, one-factor model, was chosen as the final factor structure.

### **3.3.3. Perceived Task Visibility Scale**

After testing the assumptions of factor analysis, principal components analysis was conducted with 6-item task visibility scale. Results revealed two factors. First factor explained 64.54% of total variance with an eigenvalue of 3.87, and second factor explained 17.08% of variance with an eigenvalue of 1.03. Two-factor model was confirmatory factor analyzed with Lisrel 8.51. Two-factor model fitted the data well,  $\chi^2/df = 2.16$ , GFI= .97, NFI= .98, CFI= .99. However, the correlation between two factors was high ( $r = .74$ ). Therefore, 6 items were forced to one factor and the model was again confirmatory factor analyzed. One-factor solution had acceptable fit indices,  $\chi^2(5, N=143) = 6.84$ , GFI = .98, NFI = .99, CFI = .99. One factor solution significantly improved the fit over two-factor solution,  $\Delta\chi^2(1) = 6.09$ ,  $p < .05$ . Hence, one-factor model was chosen as the final factor structure.

### **3.3.4. Justice Scale**

First of all, the principal component analysis with varimax rotation was conducted with 20 items in order to check whether the justice scale could be divided into four factors as Colquitt (2001) suggested. Five factors emerged from this

analysis. Factor loadings of each item, total variance explained by each factor and eigenvalues were given in Table 2.

**Table 2** Results of varimax rotated factor analysis of justice scale items

	1	2	3	4	5
Has (he/she) communicated details in a timely manner?	.895				
Has (he/she) seemed to tailor (his/her) communications to individuals' specific needs?	.839				
Has (he/she) explained the procedures thoroughly?	.839				
Were (his/her) explanations regarding the procedures reasonable?	.788				
Has (he/she) been candid in (his/her) communications with you?	.775				
Has (he/she) treated you in a polite manner?		.852			
Has (he/she) refrained from improper remarks or comments?		.825			
Has (he/she) treated you with respect?		.818			
Has (he/she) treated you with dignity?		.717			
Does your (outcome) reflect the effort you have put into your work?			.881		
Is your (outcome) justified, given your performance?			.832		
Does your (outcome) reflect what you have contributed to the organization?			.800		
Is your (outcome) appropriate for the work you have completed?			.755		
Have those procedures been based on accurate information?				.808	
Have those procedures been free of bias?				.786	
Have those procedures upheld ethical and moral standards?				.758	
Have those procedures been applied consistently?				.741	
Have you been able to express your views and feelings during those procedures?					.811
Have you been able to appeal the (outcome) arrived at by those procedures?					.794
Have you had influence over the (outcome) arrived at by those procedures?					.792
% of variance	45.58	13.37	9.50	6.14	5.34
eigenvalue	9.12	2.68	1.90	1.23	1.07

As Table 2 indicates, distributive, interpersonal, and informational justice items were differentiated as Colquitt (2001) suggested. However, procedural justice items loaded onto two factors, contrary to what was suggested by Colquitt (2001). In order to confirm this five-factor structure, confirmatory factor analysis was conducted. Goodness of fit indices were satisfactory,  $\chi^2$  (155, N=143) = 176.91, GFI= .89, NFI= .93, CFI= .99. After confirming five-factor model, two factors that

emerged from procedural justice items were content analyzed. Both factors were found to be meaningful and different from each other in terms of content. Items in the first factor were measuring the amount of control individuals had over procedures that are used to determine the outcomes, representing what Thibaut and Walker (1975) called process control. Second factor was directly related to procedures and their fairness. First factor was called process control and second factor was called procedural justice in the following sections.

In order to be sure about the factor structure, the four and three-factor models were also confirmatory factor analyzed. Summary of the results of confirmatory factor analysis of five, four and three factor solutions were given in Table 3.

**Table 3** *Results of confirmatory factor analysis of justice scale*

Model	$\chi^2$	df	$\chi^2/df$	Goodness of fit index
Five-factor	176.91	155	1.14	.89
Four-factor	166.34	153	1.09	.90
Three-factor	311.72	161	1.94	.82

The four-factor model was the model suggested by Colquitt (2001). When the four factor model was tested against five-factor model, although goodness of fit index difference between two models was .01, four factor solution resulted in significant increase in overall fit,  $\Delta\chi^2(2) = 10.57$ ,  $p < .01$ . However, when percent of variance explained in each item by each factor was analyzed, it was seen that for 1<sup>st</sup>, 2<sup>nd</sup> and 6<sup>th</sup> items in procedural justice scale, the percent of variance explained by procedural justice factor decreased dramatically in four-factor model compared to five-factor model. Since four-factor model did not increase goodness of fit index a considerable amount, and it caused explained variance of items to decrease, five-factor model was evaluated as more appropriate than four-factor solution.

Three-factor model was the one where procedural justice items load on the first factor, the distributive justice items load on second factor, and interpersonal and informational justice items together load on third factor. As Table 3 indicates, three factor solution revealed low fit indices,  $\chi^2/df = 1.14$ , GFI= .82, NFI= .87, CFI= .93. Moreover, the percent of explained variance of 1<sup>st</sup>, 2<sup>nd</sup> and 6<sup>th</sup> items in procedural justice scale and of all items in interpersonal justice scale decreased. Both because of low fit indices and low percent of explained variance, three-factor solution was not preferred against five-factor model.

After investigating the results of five, four and three factor models, five-factor solution was found to be the most interpretable one in terms of construct reliability of items and goodness of fit indices. Hence, five-factor model was chosen as the final factor structure of justice scale.

### **3.3.5. Personality Scale**

The principal component analysis with varimax rotation and with the loadings above .40 was conducted with 44 items in order to check whether the personality scale items could be distributed into five factors as Benet-Martínez and John (1998) suggested. Prior to analysis, factorability of R assumption was tested. Since there were fewer than five cases per variable, KMO & Bartlett's test, which was suggested by Tabachnick and Fidell (2001), was used to test this assumption. KMO measure of sampling adequacy was .74, which was greater than .60. Hence, it was concluded that sample size was adequate to run factor analysis. When PCA was run, the scree plot and factor loadings revealed five factors. Another factor analysis was run with varimax rotation and with the loadings above .40, by forcing 44 items to five factors. When factor loading of each item was analyzed, 13<sup>th</sup> (is a reliable

worker), 22<sup>nd</sup> (is generally trusting), 35<sup>th</sup> (prefers work that is routine), 43<sup>rd</sup> (is easily distracted) items were removed from further analysis because their factor loading was below .40 (Tabachnick & Fidell (2001)). Moreover, 14<sup>th</sup> (can be tense), 31<sup>st</sup> (is sometimes shy, inhibited), 32<sup>nd</sup> (is considerate and kind to almost everyone), 41<sup>st</sup> (has few artistic interests) items were also removed from analysis because of their high cross-loadings. After elimination of these items, remaining 36 items were again forced to five factors with varimax rotation and with a cutoff of .40. Four items 8<sup>th</sup> (can be somewhat careless), 16<sup>th</sup> (generates a lot of enthusiasm), 26<sup>th</sup> (has an assertive personality), and 34<sup>th</sup> (remains calm in tense situations) had high cross-loadings and they were removed from further analysis. Remaining 32 items were again forced to five factors with varimax rotation with a cutoff of .40. 44<sup>th</sup> item (is sophisticated in art, music, or literature) was eliminated because of high cross-loading and 29<sup>th</sup> item (can be moody) was eliminated because of being below the predetermined component loading. Finally, remaining 30 items again forced to five factors with varimax rotation with a cutoff of .40 (see Table 4 for the final factor structure). The items and factors they loaded were analyzed. Except for 27<sup>th</sup> (Can be cold and aloof), 30<sup>th</sup> (Values artistic and aesthetic experiences) and 39<sup>th</sup> (Gets nervous easily) items, all of the 30 items loaded on factors that were same with suggestions of Benet-Martínez & John (1998). Factor structure difference between what was found and what was suggested by Benet-Martínez & John (1998) was attributed to cultural differences. The distribution of items was found meaningful, except for the 30<sup>th</sup> item. As Benet-Martínez & John (1998) suggested, 30<sup>th</sup> item should have loaded on Openness. However, it loaded on Neuroticism in factor analysis.

**Table 4** *Rotated Component Matrix for Personality*

	<b>E</b>	<b>O</b>	<b>C</b>	<b>A</b>	<b>N</b>
Tends to be quiet	.828				
Is talkative	.782				
Is outgoing, sociable	.768				
Is full of energy	.664				
Is reserved	.649				
Can be cold and aloof	.583				
Is original, comes up with new ideas		.810			
Has an active imagination		.759			
Is inventive		.731			
Is curious about many different things		.706			
Likes to reflect, play with ideas		.706			
Is ingenious, a deep thinker		.491			
Does a thorough job			.669		
Tends to be lazy			.668		
Perseveres until the task is finished			.650		
Does things efficiently			.614		
Makes plans, follows through with them			.597		
Tends to be disorganized			.440		
Is sometimes rude to others				.744	
Gets nervous easily				-.689	
Starts quarrels with others				.644	
Likes to cooperate with others				.559	
Tends to find fault with others				.489	
Is helpful and unselfish with others				.454	
Has a forgiving nature				.437	
Is relaxed, handles stress well					.713
Worries a lot					.642
Is emotionally stable, not easily upset					.606
Is depressed, blue					.555
Values artistic, aesthetic experiences					.435

In order to confirm the factor structure, confirmatory factor analysis was conducted with Lisrel 8.51 (Jöreskog & Sörbom, 2001). In this analysis, the three models were compared. First model was the one that resulted from factor analysis. The second model included the item distribution suggested by Benet-Martínez and John (1998) for the 30 personality items remained in the final factor analysis. The final model included the same item distribution with first model, except 30<sup>th</sup> item was loaded on Openness dimension, not on Neuroticism dimension as factor analysis results suggested. Summary of the results of confirmatory factor analysis of these three models were given in Table 5.

**Table 5** Results of confirmatory factor analysis of personality scale

Model	$\chi^2$	df	$\chi^2/df$	GFI
First model	610.50	393	1.55	.78
Second model	628.55	393	1.60	.77
Third model	582.66	393	1.49	.79

As the results indicated, all of the three models revealed below satisfactory goodness of fit indices. Hence, the item distribution suggested by Benet-Martínez and John (1998) was confirmatory factor analyzed with all of the 44 items. However, goodness of fit indices were far below satisfactory levels,  $\chi^2/df = 1.65$ , GFI= .68, NFI= .51, CFI= .70. Since the scope of this study was not the adaptation of Benet-Martínez and John's (1998) Big Five Inventory to Turkish culture, no more analysis was conducted with respect to forming a revised personality scale. Among the three models testing the distribution of 30 items, third model revealed best goodness of fit indices and most psychologically sensible item distributions. Hence, third model was chosen as the final factor structure for the 30-item personality scale.

### **3.4. Reliability Analysis**

Reliability analysis of each scale was conducted. According to McIntire and Miller (2000), the Cronbach's alpha coefficient over .70 is adequate for a good reliability. The alpha reliability values for each scale were given in Table 6. The reliability of all scales was above required level of .70, except for neuroticism and conscientiousness scales. The alpha reliabilities for neuroticism and conscientiousness was around .70, which is acceptable. The reliability values of social loafing scale, perceived coworker social loafing scale and task visibility

scales, which were adapted to Turkish, were quite high. Moreover, the reliabilities of the other scales were also high, and satisfactory.

**Table 6** *Reliability of Scales*

	Nr. Of Item	Alpha
Social Loafing	10	.92
Perceived coworker SL	13	.91
Task Visibility	6	.89
Process Control	3	.76
Procedural Justice	4	.88
Distributive Justice	4	.90
Interpersonal Justice	4	.95
Informational Justice	5	.95
Extraversion	6	.83
Agreeableness	7	.71
Conscientiousness	6	.69
Neuroticism	5	.67
Openness	6	.78

### **3.5. Computation of Subscales and Analysis of Descriptives**

Before testing the hypothesized relationships between variables of the study, new variables were formed by calculating the mean of each factor within each scale. Descriptive statistics concerning the variables of interest (i.e., social loafing, perceived coworker social loafing, task visibility, process control, procedural justice, distributive justice, interpersonal justice, informational justice, extraversion, conscientiousness, agreeableness, openness, neuroticism) were presented in Table 7.

**Table 7** Descriptive Statistics concerning the variables of interest

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Social loafing	.93												
2. Perceived coworker social loafing	.08	.91											
3. Task visibility	-.08	-.60**	.89										
4. Process control	.08	-.08	.11	.76									
5. Procedural justice	-.05	-.32**	.35**	.40**	.88								
6. Distributive justice	-.01	-.26**	.36**	.19*	.56**	.90							
7. Interpersonal justice	-.06	-.39**	.57**	.21*	.46**	.43**	.95						
8. Informational justice	-.09	-.38**	.52**	.17*	.47**	.44**	.73**	.95					
9. Extraversion	.22**	-.09	.00	.15	.07	-.01	-.02	.03	.83				
10. Agreeableness	-.09	-.23**	.23**	-.06	.15	.04	.29**	.24**	.16	.71			
11. Conscientiousness	.00	.05	.07	.07	.05	-.02	.02	.03	.19*	.27**	.73		
12. Neuroticism	.14	.13	-.13	-.02	-.20*	-.13	-.23**	-.18*	-.36**	-.23**	-.21*	.67	
13. Openness	.20*	.02	-.01	.12	-.02	-.08	.05	.01	.25**	.06	.25**	-.10	.79
Mean	1.82	2.34	3.55	2.36	2.73	3.03	3.97	3.16	3.42	4.12	4.10	2.57	4.08
SD	.73	.78	.83	.95	.95	.93	1.04	1.09	.90	.60	.59	.85	.60
Range	4.00	4.00	4.00	4.00	3.75	4.00	4.00	4.00	3.67	2.86	2.50	4.00	3.00

Note. \* $p < .05$ , \*\* $p < .01$ . Reliability values are on the diagonal written in bold. Scale values for the scales: Social loafing, Perceived coworker social loafing, Task visibility, Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness: 1= Strongly Disagree, 5= Strongly Agree; Process Control, Procedural Justice, Distributive Justice, Interpersonal Justice, Informational Justice: 1= To a small extent, 5= To a large extent

As the mean values of the variables presented in Table 7 indicated, the participants' perceptions of interpersonal justice and task visibility were quite high. The perceptions of process control, distributive justice, procedural justice and informational justice were at moderate levels. On social loafing measure, participants had relatively low ratings. The perceived coworker social loafing was at low to moderate levels. On personality dimensions, participants were high on agreeableness, conscientiousness, and openness dimension; they were moderate on extraversion dimension and low on neuroticism dimension.

Social loafing was not significantly correlated with any variable except for extraversion and openness. Correlation coefficient between social loafing and extraversion was ( $r = .22$ ) significant and in the expected direction. However, there was a significant positive correlation between openness and social loafing ( $r = .20$ ). As the Table 7 indicated, perceived coworker social loafing was significantly and negatively correlated with task visibility ( $r = -.60$ ), procedural justice ( $r = -.32$ ), distributive justice ( $r = -.26$ ), interpersonal justice ( $r = -.39$ ), informational justice ( $r = -.38$ ), and agreeableness ( $r = -.23$ ).

All justice measures were positively correlated with each other. When personality dimensions were considered, extraversion-conscientiousness ( $r = .19$ ), extraversion-openness ( $r = .25$ ), agreeableness-conscientiousness ( $r = .27$ ), openness-conscientiousness ( $r = .25$ ) were positively correlated. There were negative correlations between neuroticism-extraversion ( $r = -.36$ ), neuroticism-agreeableness ( $r = -.23$ ) and neuroticism-conscientiousness ( $r = -.21$ ) dimensions as expected.

### **3.6. Analysis of Descriptives of Demographic Variables**

Before testing the hypothesized relationships, the descriptive statistics of demographic variables were also analyzed. Analysis was conducted in two parts. In the first part, supervisor demographics and their correlation with social loafing were analyzed, and in the second part, individuals' demographics and their correlation with social loafing were analyzed. Descriptive statistics concerning supervisor demographics were presented in Table 8.

As indicated, there were significant correlations between supervisor's satisfaction with group and social loafing ( $r = -.20$ ) and between supervisor sex and social loafing ( $r = .21$ ). Female supervisors rated their subordinates higher on social loafing measure than male supervisors. The correlation between social loafing and other supervisor demographics were not significant.

**Table 8** Descriptive Statistics concerning supervisor demographics

	1	2	3	4	5	6	7	8	9	10	11	12
1. Social Loafing	1.00											
2. Sex	.21*	1.00										
3. Age	-.12	-.29**	1.00									
4. Education Level	.02	-.06	-.16	1.00								
5. Tenure	-.12	-.24**	.28**	.11	1.00							
6. Total time with current group	-.10	-.21*	.71**	-.20*	.22**	1.00						
7. Total work experience	-.11	-.10	.25**	-.04	.14	-.41**	1.00					
8. Duration of supervision to the current group	-.15	-.17*	.51**	-.17*	.19*	.24**	.50**	1.00				
9. Duration of current group existence	-.05	.17*	.10	.06	-.02	.13	.25**	.63**	1.00			
10. Group size	.00	.08	.30**	-.22**	-.04	.49**	-.11	.11	.33**	1.00		
11. Ever supervised a group before	.01	.00	-.61**	.18*	-.31**	-.56**	-.14	-.26**	-.26**	-.22**	1.00	
12. Satisfaction with group	-.20*	-.44**	.48**	-.27**	.14	.19*	.21*	.41**	-.23**	-.38**	-.12	1.00
Mean	1.82	1.32	33.51	3.64	5.32	8.88	4.59	2.33	3.29	9.71	1.37	3.82
SD	.73	.47	5.53	.88	3.11	5.78	3.77	1.50	2.20	6.48	.48	1.04

Note. \*p < .05. \*\*p < .01. Scale values for the variables: Social loafing and Satisfaction with group: 1 = Strongly Disagree, 5 = Strongly Agree; Sex: 1 = Male, 2 = Female; Education Level: 1 = Primary School, 2 = High School, 3 = University, 4 = Masters Student, 5 = Masters Degree; Ever supervised a group before: 1 = Yes, 2 = No. Time periods were given in years.

In order to figure out which supervisor demographics were related with social loafing, regression analysis was conducted where social loafing was regressed on all supervisor demographics. The results were presented in Table 9. Supervisor demographics significantly predicted SL,  $R^2 = .17$ ,  $F(11, 128) = 2.33$ ,  $p < .05$ .

**Table 9** *Regression of social loafing on supervisor demographics*

<b>Variables</b>	<b>B</b>	<b>STB</b>	<b>Beta</b>	<b>t</b>	<b>R</b>	<b>R<sup>2</sup></b>
Sex	-.04	.17	-.02	-.23	.41	.17*
Age	.11	.04	.84	2.58**		
Education level	-.07	.09	-.09	-.79		
Tenure	-.01	.02	-.04	-.36		
Total time with current group	-.17	.05	-1.34	-3.13**		
Total work experience	-.19	.06	-.97	-3.23**		
Duration of supervision to the current group	.17	.10	.36	1.76		
Duration of current group existence	-.04	.06	-.13	-.72		
Group size	.01	.02	.07	.50		
Ever supervised a group before	-.50	.22	-.33	-2.30**		
Satisfaction with group	-.28	.12	-.39	-2.39**		

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\*\* $p \leq .01$ , \* $p \leq .05$

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As can be seen in Table 9, among supervisor demographics, age, total time with current group, total work experience, whether supervised a group before and satisfaction with group turned out to be significant predictors of social loafing. Although these variables turned out to be significant predictors of social loafing, except for satisfaction with group, their correlation with social loafing was not significant (see Table 8). This unexpected inconsistency between results of regression and bivariate correlations between variables was attributed to potential suppressor effects. According to Tabachnick and Fidell (2001), suppression can be

talked about when an independent variable (IV) is a significant predictor of dependent variable (DV) and it increases the multiple  $R^2$  because of its high correlation with other IVs. Tabachnick and Fidell (2001) stated that a suppressor variable is identified by comparing simple correlation between each IV and the DV in the correlation matrix with the standardized coefficient (beta weight) for the IV. If absolute value of the simple correlation between IV and DV is substantially smaller than beta weight, or if simple correlation and beta weight have opposite signs, there might be a suppressor variable. With this point of view, the correlation matrix and beta coefficients were analyzed for each individual variable. The signs of correlation coefficients and beta weights were opposite for the variables sex, age and whether supervised a group before. Moreover, the absolute value of simple correlation coefficients of total time with current group and total work experience were substantially smaller than their beta weights. The only variable whose correlation coefficient and beta weight were consistent in size and direction was satisfaction with group. This variable was the potential suppressor. One way to explore potential suppressor effects was to examine partial correlations (Tabachnick & Fidell, 2001). For this reason, partial correlations were calculated by controlling satisfaction with group (see Table 10).

**Table 10** Partial correlations of social loafing and supervisor demographics after controlling for the irrelevant variance of Satisfaction with group

	1	2	3	4	5	6	7	8	9	10	11
1. Social Loafing	1.00										
2. Sex	.15	1.00									
3. Age	-.04	-.10	1.00								
4. Education Level	-.02	-.20*	-.04	1.00							
5. Tenure	-.11	-.21*	.24**	.17*	1.00						
6. Total time with current group	-.07	-.15	.72**	-.17*	.20*	1.00					
7. Total work experience	-.08	-.03	.17*	.04	.11	-.47	1.00				
8. Duration of supervision to the current group	-.08	.00	.39**	-.03	.14	.19*	.45**	1.00			
9. Duration of current group existence	-.10	.07	.25	.02	.00	.18*	.30**	.82**	1.00		
10. Group size	-.08	-.11	.59**	-.35**	.01	.62**	-.05	.30**	.26**	1.00	
11. Ever supervised a group before	-.02	-.06	-.63**	.15	-.29**	-.56**	-.11	-.22**	-.29**	-.28**	1.00

Note. \*p < .05. \*\*p < .01. Scale values for the variables: Social loafing and Satisfaction with group: 1 = Strongly Disagree, 5 = Strongly Agree; Sex: 1 = Male, 2 = Female; Ever supervised a group before: 1 = Yes, 2 = No. Education Level: 1 = Primary School, 2 = High School, 3 = University, 4 = Masters Student, 5 = Masters Degree. Time periods were given in years.

According to Table 10, after controlling the effect of satisfaction with group on the relation between social loafing and all other supervisor demographics, none of the correlation coefficients was significant. Compared to regression results where age, total time with current group, total work experience and whether supervised a group before were significant predictors of social loafing, none of these variables were significantly correlated with SL after satisfaction with group was controlled. Moreover, although the correlation between supervisor's sex and SL was significant (see Table 8), the partial correlation between these two variables turned out to be insignificant when satisfaction with group was controlled (see Table 10). Hence, it was concluded that satisfaction with group suppressed the relation between SL and all other supervisor demographics. The only variable which had significant effect on SL was satisfaction with group.

After analyzing supervisor demographics, individuals' demographics were analyzed. The descriptive statistics concerning individuals' demographics were presented in Table 11.

**Table 11** Descriptive Statistics concerning individuals' demographics

	1	2	3	4	5	6	7	8	9	10	11	
1. Social loafing	1.00											
2. Sex	.13	1.00										
3. Age	.02	.03	1.00									
4. Education Level	.11	-.05	-.08	1.00								
5. Tenure	-.02	.05	.49	-.12	1.00							
6. Total work experience	.00	-.01	.86	-.17	.60	1.00						
7. Total time with current supervisor	.09	.10	.34	-.04	.55	.39	1.00					
8. Total time with current group	-.02	.09	.48	.02	.49	.46	.67	1.00				
9. Duration of current group existence	-.08	.13	.19	.04	.17	.23	.25	.47	1.00			
10. Group size	-.01	.09	.02	.03	-.07	-.02	.04	.01	.32	1.00		
11. Satisfaction with group	-.02	-.12	.11	.00	-.01	.10	.06	.09	-.11	.00	1.00	
	Mean	1.82	1.31	28.39	3.45	3.43	6.15	2.06	2.01	3.92	9.56	4.01
	SD	.73	.47	4.37	.80	2.72	4.55	1.56	1.52	2.46	8.59	.89

Note. \* $p < .05$ . \*\* $p < .01$ . Scale values for the variables: Social loafing and Satisfaction with group: 1= Strongly Disagree, 5= Strongly Agree; Sex: 1 = Male, 2 = Female; Education Level: 1 = Primary School, 2 = High School, 3 = University, 4 = Masters Student, 5 = Masters Degree. Time periods were given in years.

As the above table showed, SL was not significantly correlated with any individual demographics. The relation between SL and individual demographics were also analyzed with a regression analysis. However, the results were similar with bivariate correlations. None of the individual demographic variables significantly predicted SL.

To conclude, the only demographic variable significantly related with SL was supervisor's satisfaction with group ( $r = -.20, p < .05$ ). This finding indicated that as supervisor's satisfaction with group increased, social loafing of individuals decreased. As it was stated in Chapter 2, social loafing was measured by self-reports of supervisors. The negative relation between supervisor's satisfaction with group and social loafing might be an indication of perceptual bias of supervisors. The supervisors who were satisfied with their groups might have rated individual group members leniently. Therefore, in hypothesis testing, in order to eliminate potential leniency in supervisor ratings, supervisor's satisfaction with group was controlled.

### **3.7. Hypothesis Testing**

Before hypothesis testing, data cleaning was done using total scores. In the data cleaning phase, data was checked for univariate and multivariate outliers. Three cases turned out to be univariate outliers and they were discarded from further analysis. There were no multivariate outliers. Hence, hypothesis testing was done with a sample of 140 cases.

In order to test the relation between personality, justice perceptions, task visibility, perceived coworker social loafing and individual's social loafing, a set of regression analysis were conducted.

As stated previously, in all of the following regression analysis, supervisor's satisfaction with group was controlled by entering it to the equation in the first step and other variables in the second step.

First of all, the relation between big five personality dimensions and social loafing was tested. After controlling for supervisor's satisfaction with group, big five personality dimensions significantly predicted social loafing,  $R^2 = .14$ ,  $F(5,133) = 2.94$ ,  $p < .05$ . Results were presented in Table 12. The results showed that extraversion ( $\beta = .21$ ,  $p < .01$ ) and neuroticism ( $\beta = .17$ ,  $p < .05$ ) significantly predicted social loafing. On the other hand, agreeableness, conscientiousness and openness were not related to social loafing.

**Table 12** *Regression of social loafing on Big Five Personality dimensions*

Variables	B	STB	Beta	t	R	R <sup>2</sup>	R <sup>2</sup> Δ
STEP ONE					.22	.05	.05**
Supervisor's satisfaction with group	-.16	.06	-.22	-2.67**			
STEP TWO					.38	.14	.10*
Supervisor's satisfaction with group	-.12	.06	-.16	-1.92			
Extraversion	.21	.07	.26	2.93**			
Openness	.14	.11	.11	1.26			
Conscientiousness	-.03	.11	-.02	-.28			
Agreeableness	-.11	.11	-.09	-1.07			
Neuroticism	.17	.08	.19	2.12*			
** $p \leq .01$ , * $p \leq .05$							

As hypothesized, there was significant positive relation between extraversion and social loafing,  $\beta = .21$ ,  $p < .01$ . Moreover, as it was indicated in Table 7, the correlation between extraversion and social loafing is significant,  $r = .22$ ,  $p < .01$ . Hence, Hypothesis 2 was supported.

Although the correlation between neuroticism and social loafing was not significant (see Table 7), the results of the regression analysis revealed significant positive relation between neuroticism and social loafing,  $\beta = .17$ ,  $p < .01$ . Despite significant positive correlation between openness and social loafing ( $r = .20$ ,  $p < .05$ , see Table 7), the relation between these two variables turned out to be insignificant in regression analysis (see Table 12). These two unexpected correlation patterns were considered as a signal for suppressor effect. When the correlation coefficients and beta weights were analyzed to figure out the potential suppressor, the only variable showing consistent coefficients both in size and direction was extraversion. Therefore, extraversion was considered as a potential suppressor and partial correlations were calculated by controlling extraversion. The results are presented in Table 13.

**Table 13** *Partial correlations of social loafing and personality dimensions after controlling for the irrelevant variance of Extraversion.*

	1	2	3	4	5
1. Social Loafing	1.00				
2. Openness	.13	1.00			
3. Conscientiousness	-.02	.26**	1.00		
4. Agreeableness	-.12	.05	.22**	1.00	
5. Neuroticism	.24**	-.01	-.13	-.19*	1.00

\*\* $p \leq .01$ , \* $p \leq .05$

As partial correlations presented in Table 13 indicated, after controlling the irrelevant variance of extraversion, the correlation between neuroticism and SL became significant and it increased from .14 (when extraversion was not controlled-Table 7) to .24 (when extraversion was not controlled-Table 13). This finding supports the argument that extraversion suppressed the relation between neuroticism

and SL. On the other hand, the correlation between openness and SL did not become significant after controlling for extraversion. This indicated that extraversion suppressed the correlation between openness and SL. The predictive validity of personality variables on SL after controlling for extraversion was tested by a three-step hierarchical regression analysis where supervisor's satisfaction with group was entered in the first step, extraversion was entered in the second step, and the remaining personality variables were entered in the last step. The results are presented in Table 14.

**Table 14** Hierarchical Regression of social loafing on Big Five Personality dimensions

Variables	B	STB	Beta	t	R	R <sup>2</sup>	R <sup>2</sup> Δ
STEP ONE					.22	.05	.05**
Supervisor's satisfaction with group	-.16	.06	-.22	-2.67**			
STEP TWO					.30	.09	.04*
Supervisor's satisfaction with group	-.15	.06	-.22	-2.65**			
Extraversion	.17	.07	.20	2.45*			
STEP THREE					.38	.14	.06
Supervisor's satisfaction with group	-.12	.06	-.16	-1.92**			
Extraversion	.21	.07	.26	2.93**			
Openness	.14	.11	.11	1.26			
Conscientiousness	-.03	.11	-.02	-.28			
Agreeableness	-.11	.11	-.09	-1.07			
Neuroticism	.17	.08	.26	2.93**			

\*\*p ≤ .01, \*p ≤ .05

The results showed that, after controlling for supervisor's satisfaction with group and extraversion, remaining personality variables did not significantly predict

SL. However, neuroticism was still significant,  $\beta = .17$ ,  $p < .01$ . Finally, a four step regression was run by entering supervisor's satisfaction with group in the first step, extraversion in the second step, neuroticism in the third step and remaining personality variables in the last step. The results are presented in Table 15.

**Table 15** Hierarchical Regression of social loafing on Big Five Personality dimensions

Variables	B	STB	Beta	t	R	R <sup>2</sup>	R <sup>2</sup> Δ
STEP ONE					.22	.05	.05**
Supervisor's satisfaction with group	-.16	.06	-.22	-2.67**			
STEP TWO					.30	.09	.04*
Supervisor's satisfaction with group	-.15	.06	-.22	-2.65**			
Extraversion	.17	.07	.20	2.45*			
STEP THREE					.35	.13	.04*
Supervisor's satisfaction with group	-.12	.06	-.17	-2.11*			
Extraversion	.23	.07	.27	3.17**			
Neuroticism	.18	.08	.21	2.39*			
STEP FOUR					.38	.14	.18
Supervisor's satisfaction with group	-.12	.06	-.16	-1.92			
Extraversion	.21	.07	.26	2.93**			
Neuroticism	.17	.08	.19	2.12*			
Openness	.14	.11	.11	1.26			
Conscientiousness	-.03	.11	-.02	-.28			
Agreeableness	-.11	.11	-.09	-1.07			

\*\* $p \leq .01$ , \* $p \leq .05$

The results indicated that extraversion and neuroticism were the only personality dimensions that significantly predicted SL. Openness did not have main effect on social loafing after extraversion was controlled. This result explained that the reason for the significant bivariate correlation between openness and SL was the suppressor effect of extraversion. Extraversion strengthened the relation between openness and SL by adding irrelevant variance to openness. Agreeableness and conscientiousness were not significantly related with SL.

To sum up, there was significant positive relation between extraversion and SL and between neuroticism and SL, indicating support for Hypothesis 2 and 4. However, since the relation between openness and SL, agreeableness and SL and conscientiousness and SL were not significant, Hypotheses 1, 3 and 5 were not supported.

In the second step, main effect of justice dimensions on social loafing was tested. After controlling for supervisor's satisfaction with group, when all justice dimensions were entered to the equation at the same time, they did not have significant main effect on social loafing,  $R^2 = .07$ ,  $F(5,133) = .61$ ,  $p > .05$ . The results of regression analysis were presented in Table 16.

**Table 16** *Regression of social loafing on Justice Dimensions*

Variables	B	STB	Beta	t	R	R <sup>2</sup>	R <sup>2</sup> Δ
STEP ONE					.22	.05	.05**
Supervisor's satisfaction with group	-.16	.06	-.22	-2.67**			
STEP TWO					.27	.07	.02
Supervisor's satisfaction with group	-.16	.06	-.22	-2.58*			
Process Control	.08	.07	.09	1.01			
Procedural Justice	-.05	.09	-.06	-.55			
Distributive Justice	.07	.08	.08	.81			
Interpersonal Justice	-.01	.09	.01	-.06			
Informational Justice	-.08	.09	-.12	-.93			

\*\* $p \leq .01$ , \* $p \leq .05$

Skarlicki and Folger (1997) found significant interaction between procedural, distributive and interpersonal justice. Moreover, in their study, procedural and interpersonal justice turned out to be moderators in the relation between distributive

justice and organizational retaliation behavior. In the light of this study, potential interaction effects of justice dimensions were also analyzed. However, none of the interactions were significant. As it was indicated in Table 7, the correlation between each justice dimension and social loafing was not significant. Therefore, Hypothesis 6 to 9 was not supported.

Hypothesis 10 and 11 were tested by two separate moderated regression analysis. The first regression tested the moderator effect of distributive justice on the relation between task visibility and individual's social loafing (see Table 17). The other one tested the moderator effect of distributive justice on the relation between perception of coworker social loafing and individual's social loafing (see Table 18). However, both regression results revealed insignificant moderator effects, indicating that Hypothesis 10 and 11 were not supported.

**Table 17** *Moderated Regression of social loafing on distributive justice where task visibility is moderator*

<b>Variables</b>	<b>B</b>	<b>STB</b>	<b>Beta</b>	<b>t</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>R<sup>2</sup>Δ</b>
STEP ONE					.22	.05	.05**
Supervisor's satisfaction with group	-.16	.06	-.22	-2.67**			
STEP TWO					.23	.05	.004
Supervisor's satisfaction with group	-.15	.06	-.21	-2.45*			
Task Visibility (TV)	-.06	.07	.11	1.21			
Distributive Justice (DJ)	.03	.09	.00	.01			
STEP THREE					.24	.06	.006
Supervisor's satisfaction with group	-.16	.06	-.22	-2.58*			
Task Visibility (TV)	-.07	.08	.07	-.80			
Distributive Justice (DJ)	.02	.07	.03	.31			
TV*DJ	-.06	.07	-.08	-.90			

\*\*p ≤ .01, \*p ≤ .05

**Table 18** *Moderated Regression of social loafing on perception of coworker social loafing where distributive justice is moderator*

<b>Variables</b>	<b>B</b>	<b>STB</b>	<b>Beta</b>	<b>t</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>R<sup>2</sup>Δ</b>
STEP ONE					.22	.05	.05**
Supervisor's satisfaction with group	-.16	.06	-.22	-2.67**			
STEP TWO					.23	.05	.005
Supervisor's satisfaction with group	-.15	.06	-.21	-2.48*			
Coworker Social Loafing (CSL)	.07	.08	.07	.83			
Distributive Justice (DJ)	.02	.07	.03	.35			
STEP THREE					.24	.06	.004
Supervisor's satisfaction with group	-.17	.06	-.23	-2.60**			
Coworker Social Loafing (CSL)	.07	.08	.07	.80			
Distributive Justice (DJ)	.03	.07	.04	.40			
CSL*DJ	.08	.10	.07	.79			

\*\*p≤ .01, \*p≤ .05

### 3.8. Other Analysis

Although no specific hypothesis was set, interaction effects of justice and personality on social loafing was also analyzed. First of all, interaction terms of each justice dimensions with each personality factors were calculated. Then, hierarchical moderated regression analyses were conducted for each interaction term, by controlling supervisor's satisfaction with group in the first step. Only the interaction of conscientiousness with informational justice and the interaction of extraversion with distributive justice had significant effects on social loafing. The results of the

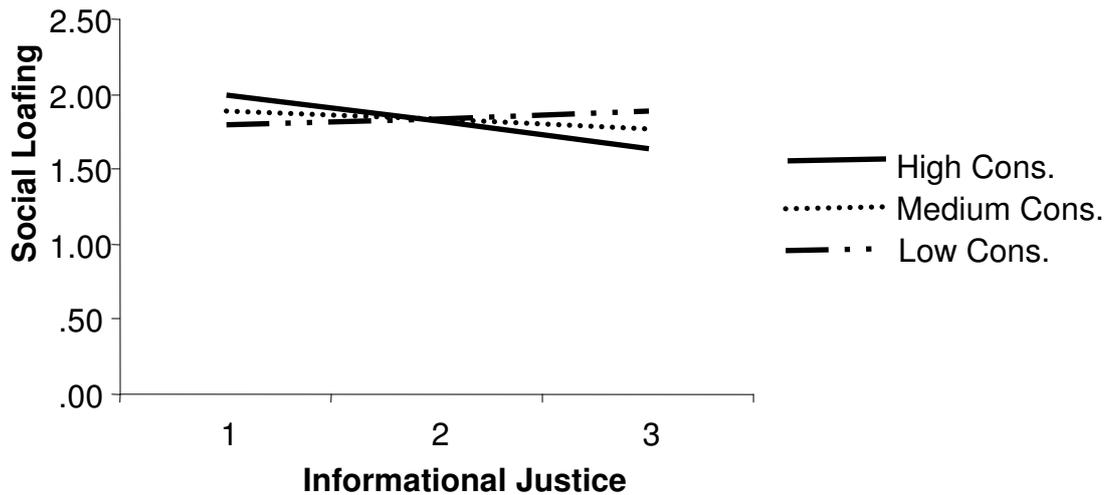
moderated regression analysis testing the relation between informational justice and SL where conscientiousness was moderator were given in Table 19.

**Table 19** *Moderated Regression of social loafing on informational justice where conscientiousness was moderator*

Variables	B	STB	Beta	t	R	R <sup>2</sup>	R <sup>2</sup> Δ
Step One					.22	.05	.05**
Supervisor's satisfaction with group	-.16	.06	-.22	-2.67**			
Step Two					.24	.06	.01
Supervisor's satisfaction with group	-.15	.06	-.22	-2.57*			
Conscientiousness	-.01	.11	.01	.13			
Informational justice	-.07	.06	-.10	-1.20			
Step Three					.31	.09	.03*
Supervisor's satisfaction with group	-.15	.06	-.21	-2.50*			
Conscientiousness	-.02	.10	-.02	-.19			
Informational justice	-.06	.06	-.09	-1.05			
Cons * InfJ	-.20	.09	-.19	-2.24*			

\*\*p ≤ .01, \*p ≤ .05

According to Table 19, although informational justice and conscientiousness didn't have main effect on SL after controlling for supervisor's satisfaction with group, their interaction had significant effect on SL,  $\Delta R^2 = .03$ ,  $F(1,135) = 5.03$ ,  $p < .05$ . When simple slope tests were run following the procedures recommended by Aiken and West (1991), a significant negative relation between informational justice and social loafing was found at high levels of conscientiousness ( $r = -.20$ ,  $p < .05$ ). The relation between informational justice and SL was insignificant at medium and low levels conscientiousness. The results are plotted in Figure 1.



**Figure 1.** Social loafing predicted by informational justice at low, medium and high levels of conscientiousness.

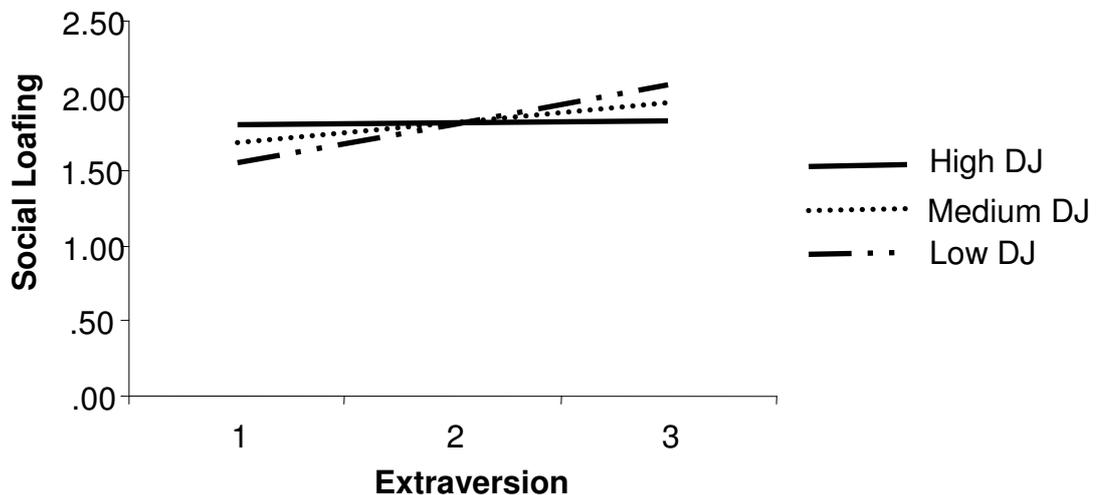
The results of the moderated regression analysis testing the relation between extraversion and SL where distributive justice was moderator were given in Table 20.

**Table 20** Moderated Regression of social loafing on extraversion where distributive justice was moderator

Variables	B	STB	Beta	t	R	R <sup>2</sup>	R <sup>2</sup> Δ
Step One					.22	.05	.05**
Supervisor's satisfaction with group	-.16	.06	-.22	-2.67**			
Step Two					.30	.09	.04
Supervisor's satisfaction with group	-.16	.06	-.22	-2.66**			
Extraversion	.17	.07	.20	2.45*			
Distributive justice	.02	.07	.02	.27			
Step Three					.35	.12	.03*
Supervisor's satisfaction with group	-.16	.06	-.22	-2.70**			
Extraversion	.16	.07	.19	2.30*			
Distributive justice	.01	.07	.01	.11			
Extra * DJ	-.16	.07	-.17	-2.14*			

\*\*p ≤ .01, \*p ≤ .05

The results depicted in Table 20 shows that interaction of extraversion and distributive justice added significant increment in explaining SL,  $\Delta R^2 = .03$ ,  $F(1,135) = 4.50$ ,  $p < .05$ . Simple slope test results revealed that for high levels of distributive justice, the relation between extraversion and SL becomes insignificant. At medium levels of distributive justice, the relation between extraversion and SL weakened ( $\beta = .007$ ,  $p < .05$ ) compared to direct relation between these two variables ( $\beta = .21$ ,  $p < .05$ ). At low levels of distributive justice, the relation between extraversion and SL strengthened ( $\beta = .30$ ,  $p < .01$ ) compared to direct relation between these two variables ( $\beta = .21$ ,  $p < .05$ ). The results are plotted in Figure 2.



**Figure 2.** Social loafing predicted by extraversion at low, medium and high levels of distributive justice

Besides these analyses, the relation between perceived coworker social loafing and demographic variables were also analyzed through bivariate correlations. The correlations are given in Table 21. Among demographics of individuals, perceived coworker social loafing was significantly correlated with total time with current supervisor ( $r = .20$ ), duration of current group existence ( $r = .18$ ), group size ( $r = .28$ ) and satisfaction with group ( $r = -.48$ ).

**Table 21** Descriptive Statistics concerning individuals' demographics

	1	2	3	4	5	6	7	8	9	10	11
1. Perceived Coworker Social Loafing	1.00										
2. Sex	.08	1.00									
3. Age	.15	.03	1.00								
4. Education Level	.13	-.05	-.08	1.00							
5. Tenure	.15	.05	.49**	-.12	1.00						
6. Total work experience	.15	-.01	.86**	-.17	.60**	1.00					
7. Total time with current supervisor	.20*	.10	.34**	-.04	.55**	.39**	1.00				
8. Total time with current group	.10	.09	.48**	.02	.49**	.46**	.67**	1.00			
9. Duration of current group existence	.18*	.13	.19*	.04	.17	.23**	.25**	.47**	1.00		
10. Group size	.28**	.09	.02	.03	-.07	-.02	.04	.01	.32**	1.00	
11. Satisfaction with group	-.48**	-.12	.11	.00	-.01	.10	.06	.09	-.11	.00	1.00
Mean	2.34	1.31	28.39	3.45	3.43	6.15	2.06	2.01	3.92	9.56	4.01
SD	.78	.47	4.37	.80	2.72	4.55	1.56	1.52	2.46	8.59	.89

Note. \* $p < .05$ . \*\* $p < .01$ . Scale values for the variables: Social loafing and Satisfaction with group: 1 = Strongly Disagree, 5 = Strongly Agree; Sex: 1 = Male, 2 = Female; Education Level: 1 = Primary School, 2 = High School, 3 = University, 4 = Masters Student, 5 = Masters Degree. Time periods were given in years.

# **CHAPTER 4**

## **DISCUSSION**

### **4.1. Overview**

The aim of this study was to investigate the role of Big Five personality dimensions and justice perceptions on social loafing. Moreover, the potential moderating effects of personality and justice perceptions on social loafing were also analyzed. After developing and adapting proper measurement tools, data was collected from three organizations functioning in information technologies (IT) sector. Hypothesis of the study were tested and results were presented. In the following sections, the results of hypothesis testing, the results of analyses besides hypothesis, practical implications, strengths and limitations of the study and suggestions for future research are discussed.

### **4.2. Results of Hypothesis Testing**

Among the five hypotheses regarding the relation between Big Five personality dimensions and social loafing (SL), two of them were supported. Extraversion and Neuroticism were found to be significant predictors of social loafing. There are many studies that found a negative relation between individual or group performance and neuroticism (e.g., Camacho & Paulus, 1995; Kichuk & Wiesner, 1997; Skarlicki, Folger & Tesluk, 1999). Supporting these studies, a

significant but low positive relation ( $\beta = .17$ ) between neuroticism and SL was found in this study, indicating that individuals high on neuroticism have a tendency to loaf.

Moreover, as hypothesized, a positive relation ( $\beta = .21$ ) was found between extraversion and SL. This finding supported the proposition that extraverted members are vulnerable to social loafing. Another interesting finding was the moderating effect of distributive justice in the relation between extraversion and social loafing. Although extraversion is a significant predictor of SL, the strength of this relationship is moderated by distributive justice. At low levels of distributive justice, there is still positive relation between extraversion and SL, and the strength of the relation increased ( $\beta = .36$ ) compared to the direct relation between these two variables ( $\beta = .21$ ). At medium levels of distributive justice, the relation between extraversion and SL weakened ( $\beta = .07$ ) compared to the direct relation between these variables ( $\beta = .21$ ). The relation between extraversion and SL turned out to be insignificant at high levels of distributive justice. These findings indicate that although there is a significant direct relation between extraversion and SL, distributive justice is a moderator in this relation. As the distributive justice increases, the relation between extraversion and SL weakens, even becomes insignificant. Similar findings were reported by Bouchard (1972) and Stewart (1996). In his study, Bouchard (1972) found that extraverted members of a group performed best when they were motivated by a cash incentive. Their performance was low when such a motivator did not exist. Stewart (1996) stated, "Extraverts are highly susceptible to the influence of external reward" (p. 622). Stewart (1996) tested the moderator effect of reward structure on the relation between extraversion and sales performance. He found that extraversion was associated with higher sales performance only on performance dimensions that were explicitly rewarded. A

negative relation was found between extraversion and performance on performance dimensions where performance was not explicitly rewarded. According to these findings, it can be concluded that extraverted members would perform at low levels on conditions where rewards are not contingent to performance. This reasoning explains relation between extraversion and social loafing on different levels of distributive justice. Extraverts would make social loafing in group settings on low distributive justice conditions. When distributive justice is high, they would perform at high levels. Therefore, distributive justice can serve as a means for preventing social loafing among extraverted individuals.

Contrary to expectations, the other three hypotheses regarding the relations between conscientiousness and SL, between agreeableness and SL, and between openness and SL were not supported. Some possible reasons for these findings are presented in the following section.

The relationship between conscientiousness and SL was insignificant. In the literature, it was consistently found that conscientiousness predicts job performance, especially contextual performance (Barrick & Mount, 1991; Borman & Motowidlo, 1997; Salgado, 1998; Hertz & Donovan, 2000). Although social loafing was considered as negative job performance, no direct relationship was found between conscientiousness and social loafing. Nature of the jobs in information technologies (IT) sector requires tasks and duties which are much more related to task performance than contextual performance. Social loafing means withholding effort and not accomplishing major duties on the job. Thus, for an individual to be considered as a social loafer in IT sector, s/he would not fulfill major tasks of the job. Since conscientiousness predicts contextual performance better than task

performance, the insignificant relation between conscientiousness and SL makes psychological sense.

Although the relation between agreeableness and SL was negative, as hypothesized, the direction was insignificant. Agreeableness is a valid predictor of job performance both at the individual level and at group level (Tett, Jackson & Rothstein, 1991; Neuman & Wright, 1999; Kichuk & Wiesner, 1997; Barrick, Stewart, Neubert, & Mount, 1998; Hofmann & Jones, 2005). However, agreeableness was found to be more strongly related to the interpersonal facilitation component of contextual performance than task performance (Van Scotter & Motowidlo, 1996; Hurtz & Donovan, 2000). In IT sector, there is high interaction between individuals in the early stages of the group processes. After a while, the tasks of individuals become well-defined and segmented; and personal interaction decreases. In this study, the participants' average time spent working in their current group was 2.01 years, which is a long period. The reason for the insignificant relation between agreeableness and SL can be the reduced personal interaction among group members. On the other hand, agreeableness would be a valid predictor of social loafing in early stages of group processes, where the tasks of group members are not well defined and there is more interaction among individuals.

Considering the studies confirming a positive relation between openness and job performance (Comadena, 1984; Neuman, Wagner & Christiansen, 1999), a negative relation between openness and SL was proposed. Contrary to what was hypothesized, the relation between openness and SL was insignificant. One possible reason for this unexpected result can be explained by Murphy's (1989) maintenance and transitional job stage model. Murphy (1989) stated that "Transitions occur when an employee is new to a job, or when the major duties or responsibilities of a job

change.” (p.190). Murphy (1989) defined maintenance stage as a period in which all major job tasks were learned and the job no longer presents novel or unpredictable situations. Openness to experience was found to be a critical factor for performance in jobs that require adapting to change (LePine, Colquitt & Erez, 2000; LePine, 2003) and for jobs in transitional stage (Thoresen, Bradley, Bliese & Thoresen, 2004). The hypothesis in this study was constructed on the idea that individuals high on openness would be willing to take on new responsibilities and they would accept each task in the group as a learning opportunity. So they would not engage in social loafing. In this viewpoint, there was a misleading hidden assumption that participant’s jobs provided new learning opportunities and required taking on new responsibilities. But, if the job is in maintenance stage or if the job is monotone, no relation would exist between openness and SL. The relation between these two variables may even turn out to be positive because individuals high on this trait may look for alternative ways to learn new things in a monotone job, which may cause them to delay their major tasks. Hence, there may be a positive relation between openness and SL in jobs that include monotone tasks. As a result, job stages and job characteristics seem to be important factors affecting the relation between openness and SL. This relation remains to be addressed by future researchers in different occupational settings and contexts.

The situational strategy for the study of personality and social behavior (Snyder & Ickes, 1985) can be another explanation for the insignificant relations between three personality dimensions (conscientiousness, agreeableness and openness to experience) and social loafing. According to Snyder and Ickes (1985), in order for a certain behavior to occur, the social situation should be congruent with individual’s personality. For example, for an individual, who is high on openness to

experience, to outperform the other group members, s/he should be in a situation where tasks bring new experiences and responsibilities. If this is not the case, individuals high on openness would not find a chance to behave in accordance with their personality. In this study, social situations in participating organizations might have effect on the relation between personality and social loafing.

Contrary to expectations, none of the four hypotheses concerning the relation between each justice dimension and social loafing was supported. One plausible explanation for this unexpected finding comes from culture literature. Cross cultural studies on social loafing showed that culture orientation has an effect on social loafing.

Social loafing is a concept that is generally investigated in Western cultures (George, 1992; George, 1995a; George, 1995b; Liden, Wayne, Jaworski, & Bennett, 2004). Earley (1989, 1993) conducted two cross-cultural studies on social loafing in which he examined the effect of individualism-collectivism on social loafing. In the first study, cultural value (collectivism-individualism) was found to be related to social loafing. Individualists performed less in a group setting when compared to working alone. On the other hand, no loafing effect appeared for collectivists, they even performed better in a group setting than working alone. In an extension of this study, Earley (1993) investigated the implications of group membership (working with in-group or out-group members) and cultural beliefs (collectivism-individualism) on individuals' performance. The performance of individualists was lower when working in a group setting than working alone, independent of group membership. On the other hand, collectivists performed more in an in-group context than in an individual or out-group context. In a similar vein, Wagner (1995) found main and moderator effects of individualism-collectivism on cooperation in groups.

Individualism-collectivism moderated the relations between group size, identifiability and cooperation. In particular, group size and identifiability had greater effects on cooperation of individualists than they do on cooperation of collectivists. Aguinis and Henle (2003) discussed universals in eight major topics in the field of organizational behavior, such as organizational development and change, organizational culture, work teams, etc. In their review, they focused on the cultural differences that exist in the area of social loafing. The main conclusion they draw was that social loafing occurred commonly in Western cultures, whereas it did not exist or was even reversed in other cultures. Similarly, Panina and Aiello (2004) stated that “it appears that social loafing is less likely in collectivistic societies when tasks are interrelated and cohesiveness and social interaction, as well as identification with the group are higher” (p.16). Considering these studies, it can be concluded that cultural disposition (individualism-collectivism) may have an impact on social loafing. Individualists are more inclined to social loafing than collectivists. Moreover, the situational factors such as group size and identifiability have greater effect on individualists than collectivists. Because individualists care more about rewards and instrumentality of their effort to reach those rewards than collectivists do.

When justice literature is considered, there is evidence that justice applications and individuals’ reactions to them show differences across cultures. In collectivistic cultures, independent of individuals’ performance, rewards are distributed equally, in order to preserve group harmony and cohesiveness (McFarlin & Sweeney, 2001). The tendency for people to respond less favorably to lower levels of voice was found to be greater for low power distance cultures than high power distance cultures. Additionally, the interaction effect of voice and power distance

was found to be significant on employees' work attitudes and job performance (Brockner et al., 2001).

Considering social loafing, justice and culture literatures, it can be concluded that these three concepts are not independent of each other. People's reactions to group work and to unfair treatment are influenced by their cultural dispositions and this in turn affects their job attitudes and job performance. As mentioned before, this study was conducted in Turkey. Hofstede categorized Turkish culture as being high on collectivism and power distance (As cited in Paşa, Kabasakal & Bodur, 2001). Since the people in collectivistic cultures are inclined to perform better in groups than working alone (Earley, 1989, 1993), it is reasonable not to find a significant relation between social loafing and justice which is culture-dependent.

However, there is one point worth mentioning. In this study, cultural disposition of participants was not measured. Therefore, it can not be concluded that participants of this study were all collectivistic, because work settings require employees to be individualistic even in collectivistic cultures. Hence, both national culture and individuals' own cultural dispositions might have effect on justice perceptions and social loafing relation. The present study emphasizes the fact that the relation between justice perceptions and social loafing may not be as straightforward in collectivistic cultures as in individualistic cultures. Justice perceptions and social loafing relation might show differences across countries with different national cultures and across individuals with different cultural dispositions.

Finally, there were two other hypotheses proposing moderator effect of distributive justice on the relations between social loafing and task visibility and social loafing and perceived coworker social loafing. However, they were not supported either. These two hypotheses were formed depending on the supporting

evidence from previous studies investigating the role of task visibility and coworker social loafing perceptions on social loafing (Kerr & Bruun, 1983; Kidwell & Bennett, 1993; Liden, Wayne, Jaworski & Bennett, 2004). The aim of investigating such moderation effects was to figure out whether the relation between task visibility and social loafing and between perceived coworker social loafing and social loafing differed according to different levels of distributive justice. One missing point in these hypotheses was the effect of culture. The failure to support these two hypotheses could be the cultural disposition of study sample. The participants of this study are coming from a relatively collectivistic, high power distance culture. People from collectivistic cultures value group success and group goals ahead of their personal interests and goals. Moreover, Earley (1989) stated that “individualism-collectivism determines, in part, an individual’s perceived dispensability and expectations of others’ actions.” (p. 568). Earley (1989) mentioned that collectivists performed freely in group activities and they did not worry about free-riders in the group. Collectivists’ performance in a group setting is independent of their expectations about coworkers’ performance. Hence, the level of effort exerted in group settings might be independent of coworker’s social loafing in a collectivistic culture. The same reasoning is also valid for the concept of task visibility. Collectivists believe that they have an indispensable part in group’s success and survival (Earley, 1993). Even if their effort is not visible, collectivists contribute freely to group activities and exert effort for group’s success. The proposed moderator effect of distributive justice on the relations between social loafing & task visibility and social loafing & perceived coworker social loafing might be significant in an individualistic society. However, the results of this study indicated that no

moderation effects were observed in a sample coming from a relatively collectivistic culture.

### **4.3. Other Findings**

Although it was not hypothesized, the relations between social loafing and demographic variables of both supervisors and individuals were analyzed. Among the supervisor demographics, only supervisor's satisfaction with group was found to be significantly correlated with social loafing ( $r = -.20$ ). Since both social loafing and satisfaction with group scales target supervisor's own group, it was reasonable to find significant correlation between these two variables. On the other hand, this result might be an indication of supervisory rating bias. Supervisor's who were satisfied with their group might have rated their subordinates favorably. In order to overcome this problem, supervisor's satisfaction with group was controlled in analysis.

Another interesting finding was the moderation effect of conscientiousness on the relation between informational justice and social loafing. Although informational justice did not have a direct effect on social loafing, individual's conscientiousness level interacted with this justice dimension and had a negative impact on social loafing for high levels of conscientiousness. This finding implies that individuals high on conscientiousness dimension did not make social loafing when they received adequate amount of information about the decisions affecting them. Since informational justice is a new concept, to the knowledge of this researcher, no studies investigated such a moderation effect. Therefore, no support from the previous literature could be interpreted for this finding.

None of the individual's demographics was significantly related to social loafing, indicating that social loafing is a concept much more related to individual's characteristics and perceptions than individual demographics.

Besides analyzing the effects of personality, justice and demographic variables on social loafing, the correlations between these variables and perceived coworker social loafing was also analyzed.

Perceived coworker social loafing had significant correlations between task visibility ( $r = -.60$ ), procedural justice ( $r = -.32$ ), distributive justice ( $r = -.26$ ), interpersonal justice ( $r = -.39$ ), informational justice ( $r = -.38$ ), and agreeableness ( $r = -.23$ ). All of the significant correlations were in negative direction. These findings are important in the way that an individual's perception of coworkers' social loafing and his/her actual social loafing were correlated with other variables in different ways. An individual's perceived task visibility, justice perceptions and his/her agreeableness level covary with individual's perception of coworker's social loafing, where as these variables are not correlated with individual's actual social loafing. There are two possible reasons for such a difference. One possibility is that supervisor's, from whom actual social loafing scores were gathered, were not able to observe and interpret their subordinate's effort on their job. In fact, this possibility was controlled by supervisor pre-questionnaire where supervisor-subordinate interaction level was assessed. The supervisory forms whose interaction level was above average, were included in further analysis. Another possibility was that individuals might perceive loafing even when the other group members were actually performing at average or high levels, meaning that perceived coworker social loafing scores might not reflect actual loafing of individuals. Therefore, social loafing perceptions by supervisors and individual group members differed and they were not

correlated, and these perceptions were differently related with personality, justice perceptions and task visibility.

An individual's perception about coworker's social loafing was highly correlated with his/her perceptions of task visibility. If one believes that his/her supervisor is aware of how much effort each group member exerted on the job, then s/he does not think that other group members are loafing. Moreover, perceived coworker social loafing is negatively related to each justice dimension. If people perceive organizational applications as unfair, then they think that their coworkers exert low levels of effort in group work. These results are in line with the findings of the field research by Liden, Wayne, Jaworski, and Bennett (2004). In their field investigation, the researchers found insignificant but negative relations between perceived coworker social loafing and three variables; task visibility, distributive justice and procedural justice.

Among demographics of individuals, perceived coworker social loafing was significantly correlated with total time with current supervisor ( $r = .20$ ), duration of current group existence ( $r = .18$ ), group size ( $r = .28$ ) and satisfaction with group ( $r = -.48$ ). These results revealed that increases in total time with current supervisor, duration of current group existence and group size lead to increase in the perceptions of coworker social loafing. As the time spent with current group increases, group members may get to know each other better and they may have the opportunity to observe each other more. By this way, depending on the experience with each other, they may evaluate each other's performance better. The positive correlation between group size and perceived coworker social loafing is in line with the findings of Liden et al. (2004). They also found positive correlation between these two variables.

The negative correlation between individual's satisfaction with group and perceived coworker social loafing has two implications. From one side, as the individual's satisfaction with group increased, s/he perceived coworkers as exerting high levels of effort in group tasks. From the other side, as the individual perceived his/her coworkers as not loafer, then his/her satisfaction with group increased. Therefore, no causal relation can be drawn between these two variables.

#### **4.4. Practical Implications**

Since today's work environments necessitate work groups rather than individual performance, this study offers several practical implications for how organizations might build and sustain effective work groups and prevent social loafing among these groups. Since the generalizability of the results of this study is limited to the organizations in IT sector, practical implications would be more useful of jobs in same sector.

First of all, considering the personality dimensions related to social loafing, extraverts and neurotics are the ones most vulnerable to social loafing. Hence, while constructing a work group, organizations should be aware of the fact that a group composed of individuals high on extraversion and neuroticism would be ineffective and would witness social loafing after a while. However, building work groups without extraverted members would not be a solution when potential contributions of extraverted members to group's performance (Williams & Sternberg, 1988; Bradshaw et al., 1999) are considered. An alternative way to prevent social loafing among extraverted members would be increasing distributive justice. At high levels of distributive justice, extraverted members would not make social loafing. On the

other hand, organizations should be cautious about the individuals high on neuroticism.

Individuals high on conscientiousness dimension are the only ones who are sensitive to informational justice concept. This may be due to the fact that conscientious people are concerned about the information side of the procedures. Social loafing among those individuals could be prevented by providing accurate and enough information about the organizational decisions that affected them.

#### **4.5. Strengths of the Study**

Despite the failure to support the majority of the hypothesis, it is believed that current study contributed to the literature in general, and to Turkey in particular. Most of the studies on social loafing had experimental designs (Latané, Williams & Harkins, 1979; Williams & Karau, 1991; Atoum & Farah, 2001, etc.). However, this study was a field investigation, which increases generalizability of its findings.

Besides being a field investigation, this study has many contributions to the literature. One of the main contributions is the development of social loafing and perceived coworker social loafing scales whose reliability and validity analysis were made. Also, task visibility scale developed by George (1992) was also adapted to Turkish. These three scales can be used in future studies.

To the knowledge of this author, this is the first study investigating the role of Big Five personality dimensions on social loafing in Turkey.

This study demonstrated the existence of 5 dimensions in the Colquitt's organizational justice scale. Colquitt (2001) found a four-factor structure in organizational justice scale. In her study, Karabay (2004) found a three-factor structure with the adapted version of Colquitt's scale. In this study, the procedural

justice dimension split into two sub dimensions, one referring voice effect and the other referring procedural justice. This finding is important in the sense that it is the first study showing the existence of five factors in Colquitt's scale in a Turkish sample.

Since many social loafing studies were conducted in individualistic cultures (George, 1992; George, 1995a; George, 1995b; Lim, 2002; Murphy, Wayne, Liden & Erdogan, 2003; Liden, Wayne, Jaworski & Bennett, 2004), this study made valuable contribution to the literature because it was conducted in a collectivistic culture. It has shown that social loafing is a cross-cultural concept. The social loafing effect was observed among participants of this study. However, the variables those are useful in predicting social loafing turned out to be different from the variables obtained from studies conducted in individualistic cultures. The relation between justice dimensions and social loafing showed differences from those observed in individualistic cultures. On the other hand, personality dimensions were valid across different cultures (Benet-Martínez & John, 1998) and therefore they had predictive validity on social loafing.

#### **4.6. Limitations and Future Directions**

Big Five personality dimensions were measured by an adapted version of Big Five Inventory (BFI: Benet-Martínez & John, 1998; adapted by Sümer, Lajunen, Özkan (2005)). However, the internal consistency reliability of the measure was not found to be promising. Since the scope of this study was not adaptation of BFI to Turkish culture, it was used as it was adapted by Sümer, Lajunen, Özkan (2005). Future studies could make use of a scale that is more reliable.

Group processes show differences according to job stages. The sample used in this study was in maintenance stage. This was a limitation in testing the hypothesis on the relation between social loafing and two personality dimensions; agreeableness and openness. Future researchers should be cautious about group process stages in testing the relation between Big Five Personality dimensions and SL.

The conclusions regarding the results of this study are restricted to its sample, which included individuals from IT sector in Turkey. Therefore, these results remain to be replicated in different job contexts and different sectors.

Another potential limitation of the study is using one data source for collecting individual's social loafing scores. Although the impact of potential supervisory bias was reduced by controlling supervisor's satisfaction with their group, future researchers can improve generalizability of this study by replicating its results using multiple data sources in gathering social loafing scores. Besides supervisor ratings, coworker evaluations can also be used in measuring social loafing.

There was restriction of range problem on the social loafing scores gathered from supervisors. This might be a major problem in testing our hypotheses. Future should be cautious about this problem when analyzing social loafing in field settings by using scales.

## BIBLIOGRAPHY

Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol.2, pp. 267-299). New York: Academic Press.

Aguinis, H. & Henle, C. A. (2003). The search for universals in cross-cultural organizational behavior. In J. Greenberg (Ed.), *Organizational behavior: The state of the science* (2<sup>nd</sup> ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Aquino, K., Lewis, M. U., & Bradfield, M. (1999). Justice constructs, negative affectivity, and employee deviance: A proposed model and empirical test. *Journal of Organizational Behavior*, 20, 1073-1091.

Atoum, A. O., & Farah, A. M. (2001). Social loafing and personal involvement among Jordanian college students. *The Journal of Social Psychology*, 133, 785-789.

Baron, R. A., & Neuman, J. (1996). Workplace violence and workplace aggression: Evidence of their relative frequency and potential causes. *Aggressive Behavior*, 2, 161-173.

Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1-26.

Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology*, 83, 377-391.

Barry, B., & Stewart, G. L. (1997). Composition, process, and performance in self managed groups: The role of personality. *Journal of Applied Psychology*, 82, 62-78.

Benet-Martínez, V., & John, O. P. (1998). Multitrait multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75(3), 729-750.

Bies, R. J., & Moag, J. F. (1986). Interactional justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), *Research on negotiations in organizations* (Vol 1, pp. 43-55). Greenwich, CT: JAI Press.

Bolin, A. U. (2002). The relationships among personality, process, and performance in interactive brainstorming groups. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 63(6-B), 3063.

Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10, 99-109.

Bouchard, T. J. (1969). Personality, problem-solving procedure, and performance in small groups. *Journal of Applied Psychology*, 53, 1-29

Bouchard, T. J. (1972). Training, motivation, and personality as determinants of the effectiveness of brainstorming groups and individuals. *Journal of Applied Psychology*, 66, 324-331.

Bradshaw, S. D., Stasson, M. F., & Alexander, D. (1999). Shyness and group brainstorming: Effects on productivity and perceptions of performance. *North American Journal of Psychology*, 1, 267-276.

Brice, T. S. (1994). Group members' conscientiousness: An investigation of the effect on individuals' performance in a group setting. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 55(6-B), 2426.

Brickner, M. A., Harkins, S. G. & Ostrom, T. M. (1986). Effects of personal involvement: Thought-provoking implications for social loafing. *Journal of Personality and Social Psychology*, 4, 763-769.

Brockner, J., Ackerman, G., Greenberg, J., Gelfand, M. J., Francesco, A. M., Chene, Z. X., Leung, K., Bierbrauer, G., Gomez, C., Kirkman, B. L., & Shapiro, D. (2001). Culture and procedural justice: The influence of power distance on reactions to voice. *Journal of Experimental Social Psychology*, 37, 300-315.

Camacho, L. M., & Paulus, P. B. (1995). The role of social anxiousness in group brainstorming. *Journal of Personality and Social Psychology*, 68, 1071-1080.

Charbonnier, E., Huguet, P., Brauer, M., & Monteil, J. M. (1998). Social loafing and self-beliefs: People's collective effort depends on the extent to which they distinguish themselves as better than others. *Social Behavior and Personality*, 26, 329-340.

Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86, 386-400.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. & L. H., Ng, K. Y, (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86, 425-445.

Comadena, M. E. (1984). Brainstorming groups: Ambiguity tolerance, communication apprehension, task attraction, and individual productivity. *Small Group Behavior*, 15, 251-264.

Comer, D. R. (1995). A model of social loafing in real work groups. *Human Relations*, 48, 647-667.

Driskell, J. E., Hogan, R., & Salas, E. (1987). Personality and group performance. In C. Hendrick (Ed.), *Group processes and intergroup relations* (pp. 91- 112). NewburyPark, CA: Sage.

Earley, P. C. (1989). Social loafing and collectivism: A comparison of the United States and the people's Republic of China. *Administrative Science Quarterly*, 34, 565-581.

Earley, P. C. (1993). East meets West meets Mideast: Further explorations of collectivistic and individualistic work groups. *Academy of Management Journal*, 36, 319-348.

Folger, R., & Bies, R. J. (1989). Managerial responsibilities and procedural justice. *Employee Responsibilities and Rights Journal*, 2, 79-90.

George, J. M. (1992). Extrinsic and intrinsic origins of perceived social loafing in organizations. *Academy of Management Journal*, 35, 191-202.

George, J. M. (1995a). Employee propensity to withhold effort: A conceptual model to intersect three avenues of research. *Academy of Management Review*, 18, 429-456.

George, J. M. (1995b). Asymmetrical effects of rewards and punishments: The case of social loafing. *Journal of Occupational and Organizational Psychology*, 68, 327-338.

Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management*, 16, 399-432.

Greenberg, J. (1993). The social side of fairness: Interpersonal and informational classes of organizational justice. In R. Cropanzano (Ed.), *Justice in the workplace: Approaching fairness in human resource management* (pp. 79-103). Hillsdale, NJ: Erlbaum.

Greenberg, J. (1994). Using socially fair treatment to promote acceptance of a working smoking ban. *Journal of Applied Psychology*, 79, 288-297.

Harkins, S. G. (1987). Social loafing and social facilitation. *Journal of Experimental Social Psychology*, 23, 1-18.

Harkins, S. G., & Szymanski, K. (1988). Social loafing and self-evaluation with an objective standard. *Journal of Experimental Social Psychology*, 24, 354-365.

Harkins, S. G., & Szymanski, K. (1989). Social loafing and group evaluation. *Journal of Personality and Social Psychology*, 6, 934-941.

Hart, J. W. (2000). Achievement motivation and expected co-worker effort on collective task performance. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 60(8-B), 4300.

Hart, J. W., Karau, S. J., Stasson, M. F., Kerr, N. A. (2004). Achievement Motivation, Expected Coworker Performance, and Collective Task Motivation: Working Hard or Hardly Working?. *Journal of Applied Social Psychology*, 34, 984-1000.

Hoffman, D. A., & Jones, L. M. (2005). Leadership, collective personality, and performance. *Journal of Applied Psychology*, 90, 509-522.

Hogg, M. A., & Vaughan, G. M. (2005). *Social Psychology (4<sup>th</sup> ed.)*. Pearson Education Limited.

Huguet, P., Charbonnier, E., & Monteil, J. M. (1999). Productivity loss in performance groups: People who see themselves as average do not engage in social loafing. *Group Dynamics: Theory, Research, and Practice*, 3, 118- 131.

Hurtz, G. M., & Donovan, J. J. (2000). Personality and job performance: The Big Five revisited. *Journal of Applied Psychology*, 85, 869-879.

Jöreskog, K. G., & Sörbom, D. (2001). *LISREL 8.51 User's reference guide*. Chicago: Scientific Software International, Inc.

Karabay, E. Z. (2004). *Çalışanların örgütsel adaletin dört ayrı boyutuna ilişkin alguları ve bu algular ile örgüte duyulan bağlılığın üç farklı yönü arasındaki ilişkiler*. Unpublished master's thesis, Hacettepe University, Ankara, Turkey

Karau, S. J. (1994). Social loafing. *Encyclopedia of Human Behavior*, 4, 237-245.

Karau, S. J., & Hart, J. W. (1998). Group cohesiveness and social loafing: Effects of a Social Interaction Manipulation on Individual Motivation Within Groups. *Group Dynamics*, 2, 185-191.

Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology*, 65, 681-706.

Karau, S. J. & Williams, K. D. (1997). The effects of group cohesiveness on social loafing and social compensation. *Group Dynamics, 1*, 156-168.

Kerr, N. L. (1983). Motivation losses in small groups: A social dilemma analysis. *Journal of Personality and Social Psychology, 45*, 819-828.

Kerr, N. L., & Bruun, S. E. (1983). Dispensability of member effort and group motivation losses: Free-rider effects. *Journal of Personality and Social Psychology, 44*, 78-94.

Kichuk, S. L., & Wiesner, W. H. (1997). The Big Five personality factors and team performance: Implications for selecting successful product design teams. *Journal of Engineering and Technology Management, 14*, 195-222.

Kidwell, R. E., & Bennett, N. (1993). Employee propensity to withhold effort: A conceptual model to intersect three avenues of research. *Academy of Management Review, 18*, 429-456.

Kravitz, D. A., & Martin, B. (1986). Ringelmann rediscovered: The original article. *Journal of Personality and Social Psychology, 5*, 936-941.

Latané, B. (1981). The psychology of social impact. *American Psychologist, 36*, 343-356.

Latané, B., Williams, K., & Harkins, S. (1979). Many hands make light the work: The causes and consequences of social loafing. *Journal of Personality and Social Psychology, 37*, 822-832.

LePine, J. A., Colquitt, J. A., Erez, A. (2000). Adaptability to Changing Task Contexts: Effects of General Cognitive Ability, Conscientiousness, and Openness to Experience. *Personnel Psychology, 53*, 563-593.

LePine, J. A. (2003). Team adaptation and postchange performance: Effects of team composition in terms of members' cognitive ability and personality. *Journal of Applied Psychology, 88*, 27-39.

LePine, J. A., Hollenbeck, J. R., Ilgen, D. R., & Hedlund, J. (1997). Effects of individual differences on the performance of hierarchical decision-making teams: Much more than g. *Journal of Applied Psychology, 82*, 803-811.

Leventhal, G. S. (1980). What should be done with equity theory? In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchange: Advances in theory and research* (pp. 27-55). New York: Plenum.

Leventhal, G. S., Karuza, J., & Fry, W. R. (1980). Beyond fairness: A theory of allocation preferences. In G. Mikula (Ed.), *Justice and social interaction* (pp. 167-218). New York: Springer-Verlag.

Liden, R. C., Wayne, S. J., Jaworski, R. A., & Bennett, N. (2004). Social loafing: A field investigation. *Journal of Management*, 30, 285-304.

Lim, V. K. G. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior*, 23, 675-694.

Lind, E. A., & Tyler, T. (1988). *The social psychology of procedural justice*. New York: Plenum.

Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal*, 43, 738-748.

McFarlin, D. B., Sweeney, P. D. (2001). Cross-Cultural Applications of Organizational Justice. In Cropanzano, R. *Justice in the Workplace: from theory to practice*, Vol 2, 67-95. USA: Lawrence Erlbaum Associates.

McIntire, S. A., & Miller, L. A. (2000). *Foundations of psychological testing*. Boston: McGraw-Hill.

McCrae, R. R., & Costa, P. T. (1987). Validation of the five factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81-90.

Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76, 845-855.

Mulvey, P. W., & Klein, H. J. (1998). The impact of perceived loafing and collective efficacy on group goal processes and group performance. *Organizational Behavior and Human Decision Processes*, 74, 62-87.

Murphy, K. R. (1989). Is the Relation Between Cognitive Ability and Job Performance Stable Over Time? *Human Performance*, 2, 183- 200.

Murphy, S. M. (1997). *Organizational justice: An examination of antecedents and consequences*. University of Illinois, Chicago.

Murphy, S. M., Wayne, S. J., Liden, R. C., & Erdogan, B. (2003). Understanding social loafing: The role of justice perceptions and exchange relationships. *Human Relations*, 56, 61-84.

Neuman, G. A., Wagner, S. H., & Christiansen, N. D. (1999). The relationship between work-team personality composition and the job performance of teams. *Group & Organization Management*, 24, 28-46.

Neuman, G. A., & Wright, J. (1999). Team effectiveness: Beyond skills and cognitive ability. *Journal of Applied Psychology*, 84, 376-389.

Ones, D. S., & Viswesvaran, C. (2001). Personality at work: Criterion-focused occupational personality scales used in personnel selection. In Roberts, B., Brent, W. & Hogan, R. *Personality psychology in the workplace* (pp. 63-92). Washington, DC, US: American Psychological Association.

Panina, D. & Aiello, J. R. (2004). Acceptance of electronic monitoring and its consequences in different cultural contexts: A conceptual model. Presented at the 5th Annual International Business Research Forum. Information technology and international business theory and strategy development. Philadelphia, Pennsylvania.

Paşa, S. F., Kabasakal, H., Bodur, M. (2001). Society, Organizations, and Leadership in Turkey. *Applied Psychology: An International Review*, 50, 559-589.

Plaks, J. E., & Higgins, E. T. (2000). Pragmatic use of stereotyping in teamwork: Social loafing and compensation as a function of inferred partner-situation fit. *Journal of Personality and Social Psychology*, 79, 962-974.

Price, K. H. (1987). Decision responsibility, Task responsibility, Identifiability, and Social Loafing. *Organizational Behavior and Human Decision Processes*, 40, 330-345.

Salgado, J. F. (1998). Big Five personality dimensions and job performance in army and civil occupations: A European Perspective. *Human Performance*, 11, 271-288.

Schmidt, F. L., & Hunter, J. E. (1992). Development of a causal model of processes determining job performance. *Current Directions in Psychological Science*, 1, 89-92.

Schnake, M. E. (1991). Equity in effort: The “sucker effect” in co-acting groups. *Journal of Management*, 17, 41-55.

Shapiro, D. L., Buttner, E. H., & Bruce, B. (1994). Explanations: What factors enhance their perceived adequacy? *Organizational Behavior and Human Decision Processes*, 58, 346-368.

Shepperd, J. A. (1993). Productivity Loss in Performance Groups: A Motivation Analysis. *Psychological Bulletin*, 113, 67-81.

Simons, T., & Roberson, Q. (2003). Why managers should care about fairness: Effects of aggregate justice perceptions on organizational outcomes. *Journal of Applied Psychology*, 88, 432-443.

Skarlicki, D. P., & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural and interactional justice. *Journal of Applied Psychology*, 82, 434-443.

Skarlicki, D. P., Folger, R., & Tesluk, P. (1999). Personality as a moderator in the relationship between fairness and retaliation. *Academy of Management Journal*, 42, 100-108.

Smith, B. N., Kerr, N. A., Markus, M. J., & Stasson, M. F. (2001). Individual differences in social loafing: Need for cognition as a motivator in collective performance. *Group Dynamics*, 15, 150-158.

Snyder, M. & Ickes, W. J. (1985). Personality and Social Behavior. In Lindzey, G. & Aronson, E. (3<sup>rd</sup> Eds.). *Handbook of social psychology* (Vol 2, pp. 883-948). New York: Random.

Stewart, G. L. (1996). Reward Structure as a Moderator of the Relationship Between Extraversion and Sales Performance. *Journal of Applied Psychology*, 81, 619-627.

Sümer, N., Lajunen, T., & Özkan, T. (2005). Big Five personality traits as the distal predictors of road accident involvement. *Traffic and Transport Psychology*. (Ed. G. Underwood) Ch. 18, Traffic and Transport Psychology. Elsevier Ltd..

Tabachnick, B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics* (4<sup>th</sup> Ed.). Boston: Allyn & Bacon.

Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personnel Psychology*, 44, 703-743.

Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Thoresen, C. J., Bradley, J. C., Bliese, P. D., & Thoresen, J. D. (2004). The Big Five personality traits and individual job performance growth trajectories in maintenance and transitional job stages. *Journal of Applied Psychology*, 89, 835-853.

Tyler, T. R. (1987). Procedural justice research. *Social Justice Research*, 1, 41-66.

Van Scotter, J. R., & Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facets of contextual performance. *Journal of Applied Psychology*, 81, 525-531.

Viswesvaran, C. & Ones, D. S. (2000). Perspectives on models of job performance. *International Journal of Selection and Assessment*, 8, 216-226.

Wagner, J. A., III. (1995). Studies of Individualism-Collectivism: Effects on Cooperation in Groups. *Academy of Management Journal*, 38, 152- 172.

Walker, L., Lind, E. A., & Thibaut, J. (1979). The relation between procedural justice and distributive justice. *Virginia Law Review*, 65, 1401-1420.

Williams, K., Harkins, S., & Latané, B. (1981). Identifiability as a deterrent to social loafing: Two cheering experiments. *Journal of Personality and Social Psychology, 40*, 303-311.

Williams, K. D., & Karau, S. J. (1991). Social loafing and social compensation: The effects of expectations of co-worker performance. *Journal of Personality and Social Psychology, 4*, 570-581.

Williams, W. M., & Sternberg, R. J. (1988). Group intelligence: Why some groups are better than others. *Intelligence, 12*, 351-377.

## APPENDIX – A

### SUPERVISOR PRE-QUESTIONNAIRE

Bu araştırma Ortadoğu Teknik Üniversitesi Sosyal Bilimler Enstitüsü Endüstri ve Örgüt Psikolojisi Yüksek Lisans Programı'nda hazırlanmakta olan bir yüksek lisans tezi kapsamında gerçekleştirilmektedir. Araştırmanın amacı grup çalışma süreçlerini incelemektir. Bu araştırma sonucu elde edilen veriler sadece akademik amaçla kullanılacak ve şirket yönetimi ile kesinlikle paylaşılmayacaktır. Araştırmaya katılım gönüllük esasına dayanmaktadır.

Bu anketteki soruları grup elemanlarınızı düşünerek yanıtlayınız. **Lütfen, bütün maddeleri dikkatle okuyunuz** ve her soruya ait görüşünüzü **EN İYİ** ifade eden cevabı vermeye çalışınız. Her maddeyi değerlendirmeye özen göstererek değerlendirmelerinizi samimiyetle yapınız. Katılımınızdan dolayı teşekkür ederim.

Hilal Esen Ülke  
Ortadoğu Teknik Üniversitesi  
Sosyal Bilimler Enstitüsü  
Endüstri ve Örgüt Psikolojisi Bölümü  
Yüksek Lisans Öğrencisi

Grubunuzdaki her bir elemanın performans değerlendirmesini yapıyor musunuz?

Evet  Hayır

Tüm grup elemanlarınız aynı lokasyonda mı çalışıyor? Evet  Hayır

Grup elemanlarınızı gözlemlemek/takip etmek veya onlarla birlikte çalışmak için bir günün ne kadarını harcıyorsunuz?

%25 ve altı  %51-%75

%26-%50  %76 ve üzeri

Grubunuz ne tür bir iş yapıyor? .....

**Lütfen bir sonraki sayfaya geçiniz.**

Aşağıda grup elemanlarımızın sizinle etkileşimleri ile ilgili sorular bulunmaktadır. Sizden istenen bu soruları okuyarak, her birine ne kadar katıldığınızı aşağıdaki düzenlemeye uyacak biçimde yanıtlamanızdır.

- 1 Kesinlikle katılmıyorum**
- 2 Katılmıyorum**
- 3 Biraz katılıyorum**
- 4 Katılıyorum**
- 5 Kesinlikle katılıyorum**

	<b>1</b> (Kesinlikle katılmıyorum)	<b>2</b> (Katılmıyorum)	<b>3</b> (Biraz katılıyorum)	<b>4</b> (Katılıyorum)	<b>5</b> (Kesinlikle katılıyorum)
Grup elemanlarımdan birisinin ortalamanın altında çaba gösterdiğini fark ederim.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Grup elemanlarımdan yaptığı iş miktarının farkındayım.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Grup elemanlarımdan ne kadar az/çok çalıştığını fark etmem genellikle zordur.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Grup elemanlarımdan birinin işi gevşettiğini fark ederim.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Grup elemanlarımdan ne kadar çalıştığını belirlemem zordur.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Grup elemanlarımdan işleri için ne kadar çaba sarfettiğini belirlemem zordur.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**Katılımınız için teşekkür ederim.**

## APPENDIX – B

### SOCIAL LOAFING SCALE

Aşağıda grup elemanlarınızın grup içindeki davranışları ile ilgili sorular bulunmaktadır. Sizden istenen bu soruları her bir grup elemanınız için ayrı ayrı değerlendirerek, ilgili kişinin özelliklerini ne ölçüde yansıttığını aşağıdaki düzenlemeye uyacak biçimde belirtmenizdir.

- 1 Kesinlikle katılmıyorum**
- 2 Katılmıyorum**
- 3 Biraz katılıyorum**
- 4 Katılıyorum**
- 5 Kesinlikle katılıyorum**

		Grup Üyeleri				
		1	2	3	4	5
1	Toplu görev dağılımlarında sorumluluk almaktan kaçınır.					
2	Kendisine verilen bir işi, başkasına bırakmadan istenen kalite ve zamanda yapmak birinci hedefidir.					
3	İşi yapacak başkaları varsa, kendisine verilen görevi değil, kendi istediği işi yapar/ işin kendi istediği kısmına yoğunlaşır.					
4	Grup amaçlarını bireysel hedeflerin önünde tutar.					
5	Mesai saatleri içerisinde iş ile ilgili olmayan aktivitelere istikrarlı bir biçimde zaman ayırır.					
6	Kendi üstlenmesi gereken bazı sorumlulukları diğer çalışanlara yükler.					
7	İşi yapabilecek kendinden başka çalışanlar olduğu zaman, işi yapmak için daha az çaba gösterir.					
8	İşin kendi üzerine düşen kısmını yapmaz.					
9	Ekip çalışmalarında ekibindeki diğer çalışanlardan daha az çaba gösterir.					
10	Eğer işi yapacak başka çalışanlar varsa daha gevşek davranır.					
11	Eğer diğer grup üyeleri yardım edebilecek durumdaysa, diğer departman veya müşterilere yardım etmek için daha az zaman harcar.					
12	İşleri başkası yapıyorsa çalışıyor görünür ama kendi payına düşen işi yapmaz.					
13	Ekip veya grup içinde bir işi yapmak için elinden geleni en iyi şekilde yapar.					

## APPENDIX – C

### SUPERVISOR DEMOGRAPHICS

Aşağıda sizinle ilgili demografik bilgilere ilişkin sorular bulunmaktadır. **Lütfen** bu soruları **eksiksiz** olarak doldurunuz.

Cinsiyetiniz: Erkek <input type="checkbox"/>	Kadın <input type="checkbox"/>
--	--------------------------------

Yaşınız: .....
----------------

Öğrenim düzeyiniz:	
İlk-Ortaokul Mezunu <input type="checkbox"/>	Yüksek Lisans Öğrencisi <input type="checkbox"/>
Lise Mezunu <input type="checkbox"/>	Yüksek Lisans Mezunu <input type="checkbox"/>
Üniversite Mezunu <input type="checkbox"/>	

Kurumda Çalışma Süreniz: .....
--------------------------------

Toplam çalışma süreniz (Daha önce çalışmış olduğunuz kurumlar dahil): .....
---

Şu andaki grubunuzla ne kadar zamandır birlikte çalışıyorsunuz? .....
---

Şu andaki grubunuz için ne kadar zamandır yöneticilik yapıyorsunuz? .....
---

Şu andaki çalışma grubunuz kurulalı ne kadar zaman oldu? .....
--

Çalışma grubunuz kaç kişiden oluşmaktadır? .....
--

Daha önce takım liderliği görevi yaptınız mı? Evet <input type="checkbox"/>	Hayır <input type="checkbox"/>
---	--------------------------------

Aşağıda, grubunuz hakkındaki düşüncelerinizle ilgili sorular bulunmaktadır. Sizden istenen bu soruları okuyarak, sizin düşüncelerinizi ne ölçüde yansıttığımı aşağıdaki düzenlemeye uyacak biçimde belirtmenizdir.

- 1 Kesinlikle katılmıyorum
- 2 Katılmıyorum
- 3 Biraz katılıyorum
- 4 Katılıyorum
- 5 Kesinlikle katılıyorum

	1 (Kesinlikle katılmıyorum)	2 (Katılmıyorum)	3 (Biraz katılıyorum)	4 (Katılıyorum)	5 (Kesinlikle katılıyorum)
Bu grup ile çalışmaktan memnunum.	1	2	3	4	5
Elimde olsa grubumu değiştirmek isterim.	1	2	3	4	5
Bu grup ile birlikte başka işlerde görev almak isterim.	1	2	3	4	5

# APPENDIX – D

## PERSONALITY SCALE

Aşağıda sizi kısmen tanımlayan (ya da pek tanımlayamayan) bir takım özellikler sunulmaktadır. Örneğin, başkaları ile zaman geçirmekten hoşlanan birisi olduğunuzu düşünüyor musunuz? Lütfen aşağıda verilen özelliklerin sizi ne oranda yansıttığını ya da yansıtmadığını belirtmek için sizi en iyi tanımlayan rakamı her bir özelliğin yanına yazınız.

- 1 Hiç katılmıyorum
- 2 Biraz katılmıyorum
- 3 Ne katılıyorum ne de katılmıyorum (kararsızım)
- 4 Biraz katılıyorum
- 5 Tamamen katılıyorum

Kendimi ..... biri olarak görüyorum

___	1. Konuşkan	___	14. Gergin olabilen
___	2. Başkalarında hata arayan	___	15. Maharetli, derin düşünen
___	3. İşini tam yapan	___	16. Heyecan yaratabilen
___	4. Bunalımlı, melankolik	___	17. Affedici bir yapıya sahip
___	5. Orijinal, yeni görüşler ortaya koyan	___	18. Dağınık olma eğiliminde
___	6. Çekingen	___	19. Çok endişelenen
___	7. Yardımsever ve çıkarıcı olmayan	___	20. Hayal gücü yüksek
___	8. Biraz umursamaz	___	21. Sessiz bir yapıda
___	9. Rahat, stresle kolay baş eden	___	22. Genellikle başkalarına güvenen
___	10. Çok değişik konuları merak eden	___	23. Tembel olma eğiliminde olan
___	11. Enerji dolu	___	24. Duygusal olarak dengeli, kolayca keyfi kaçmayan
___	12. Başkalarıyla sürekli didişen	___	25. Keşfeden, icat eden
___	13. Güvenilir bir çalışan	___	26. Atılgan bir kişiliğe sahip

Lütfen bir sonraki sayfaya geçiniz.

- 1 Hiç katılmıyorum
- 2 Biraz katılmıyorum
- 3 Ne katılıyorum ne de katılmıyorum (kararsızım)
- 4 Biraz katılıyorum
- 5 Tamamen katılıyorum

Kendimi ..... biri olarak görüyorum

___	27. Soğuk ve mesafeli olabilen	___	36. Sosyal, girişken
___	28. Görevi tamamlanıncaya kadar sebat edebilen	___	37. Bazen başkalarına kaba davranabilen
___	29. Dakikası dakikasına uymayan	___	38. Planlar yapan ve bunları takip eden
___	30. Sanata ve estetik değerlere önem veren	___	39. Kolayca sinirlenen
___	31. Bazen utangaç, çekingen olan	___	40. Düşünmeyi seven, fikirler geliştirebilen
___	32. Hemen hemen herkese karşı saygılı ve nazik olan	___	41. Sanata ilgisi çok az olan
___	33. İşleri verimli yapan	___	42. Başkalarıyla işbirliği yapmayı seven
___	34. Gergin ortamlarda sakin kalabilen	___	43. Kolaylıkla dikkati dağılan
___	35. Rutin işleri yapmayı tercih eden	___	44. Sanat, müzik ve edebiyatta çok bilgili

Lütfen kontrol ediniz: Bütün ifadelerin önüne bir rakam yazdınız mı?

## APPENDIX – E

### PERCEIVED COWORKER SOCIAL LOAFING SCALE

Aşağıda çalışma arkadaşlarınızın grup içindeki davranışları ile ilgili sorular bulunmaktadır. Sizden istenen bu soruları **şu anda çalıştığınız grup içindeki tüm çalışma arkadaşlarınızı** genel olarak değerlendirerek, onların özelliklerini ne ölçüde yansıttığını aşağıdaki düzenlemeye uyacak biçimde belirtmenizdir.

- 1 Kesinlikle katılmıyorum
- 2 Katılmıyorum
- 3 Biraz katılıyorum
- 4 Katılıyorum
- 5 Kesinlikle katılıyorum

		1 (Kesinlikle katılmıyorum)	2 (Katılmıyorum)	3 (Biraz katılıyorum)	4 (Katılıyorum)	5 (Kesinlikle katılıyorum)
1	Çalışma arkadaşlarım, toplu görev dağılımlarında sorumluluk almaktan kaçınırlar.	1	2	3	4	5
2	Kendilerine verilen bir işi başkasına bırakmadan istenen kalite ve zamanda yapmak birinci hedefleridir.	1	2	3	4	5
3	İşi yapacak başkaları varsa, çalışma arkadaşlarım kendilerine verilen görevi değil, kendi istedikleri işi yaparlar/ işin kendi istedikleri kısmına yoğunlaşırlar.	1	2	3	4	5
4	Çalışma arkadaşlarım, bireysel hedeflerini grup amaçlarının önünde tutarlar.	1	2	3	4	5
5	Çalışma arkadaşlarım, mesai saatleri içerisinde iş ile ilgili olmayan aktivitelere istikrarlı bir biçimde zaman ayırırlar.	1	2	3	4	5
6	Çalışma arkadaşlarım, kendi üstlenmeleri gereken bazı sorumlulukları diğer çalışanlara yüklerler.	1	2	3	4	5
7	Çalışma arkadaşlarım, işi yapabilecek kendilerinden başka çalışanlar olduğu zaman, işi yapmak için daha az çaba gösterirler.	1	2	3	4	5

Lütfen bir sonraki sayfaya geçiniz.

- 1 Kesinlikle katılmıyorum  
 2 Katılmıyorum  
 3 Biraz katılıyorum  
 4 Katılıyorum  
 5 Kesinlikle katılıyorum

		1 (Kesinlikle katılmıyorum)	2 (Katılmıyorum)	3 (Biraz katılıyorum)	4 (Katılıyorum)	5 (Kesinlikle katılıyorum)
8	Çalışma arkadaşlarım, işin kendi üzerlerine düşen kısmını yapmazlar.	1	2	3	4	5
9	Çalışma arkadaşlarımdan bazıları, ekibimizdeki diğer çalışanlardan daha az çaba gösterirler.	1	2	3	4	5
10	Çalışma arkadaşlarımdan bazıları, eğer işi yapacak başka çalışanlar varsa daha gevşek davranırlar.	1	2	3	4	5
11	Çalışma arkadaşlarımdan bazıları, eğer diğer grup üyeleri yardım edebilecek durumdaysa, diğer departman veya müşterilere yardım etmek için daha az zaman harcarlar.	1	2	3	4	5
12	Çalışma arkadaşlarımdan bazıları, işleri başkası yapıyorsa çalışıyor görünür ama kendi paylarına düşen işi yapmazlar.	1	2	3	4	5
13	Çalışma arkadaşlarım, ekip veya grup içinde bir işi yapmak için ellerinden geleni en iyi şekilde yaparlar.	1	2	3	4	5

## APPENDIX – F

### PROCEDURAL JUSTICE SCALE

Aşağıda, maaş, zam, ikramiye, prim, terfi, statü, çalışma mekanındaki donanım, sosyal olanaklar, eğitim olanakları, sağlık hizmetleri ve benzeri gibi, işinizden elde ettiğiniz olanakların dağıtılışına ilişkin **KARARA VARILMA SÜRECİ** yani **KARARLARA VARILIRKEN İZLENEN YOL** hakkında sorular bulunmaktadır. Sizden istenen bu soruları okuyarak, sizin durumunuzu ne ölçüde yansıttığını aşağıdaki düzenlemeye uayacak biçimde belirtmenizdir.

- 5 Tamamen  
4 Büyük ölçüde  
3 Bir miktar  
2 Çok az  
1 Hiç

	1 (Hiç)	2 (Çok az)	3 (Bir miktar)	4 (Büyük ölçüde)	5 (Tamamen)
1	1	2	3	4	5
2	1	2	3	4	5
3	1	2	3	4	5
4	1	2	3	4	5
5	1	2	3	4	5
6	1	2	3	4	5
7	1	2	3	4	5

## APPENDIX – G

### DISTRIBUTIVE JUSTICE SCALE

Aşağıda, maaş, zam, ikramiye, prim, terfi, statü, çalışma mekanındaki donanım, sosyal olanaklar, eğitim olanakları, sağlık hizmetleri ve benzeri gibi, işinizden elde ettiğiniz olanakların **NE DERECE ADİL OLDUĞUNA İLİŞKİN** sorular bulunmaktadır. Sizden istenen bu soruları okuyarak, sizin durumunuzu ne ölçüde yansıttığını aşağıdaki düzenlemeye uyacak biçimde belirtmenizdir.

- 5 **Tamamen**  
4 **Büyük ölçüde**  
3 **Bir miktar**  
2 **Çok az**  
1 **Hiç**

		1 (Hiç)	2 (Çok az)	3 (Bir miktar)	4 (Büyük ölçüde)	5 (Tamamen)
1	Çalışmanız sonucunda elde ettiğiniz şeyler, harcadığınız çabayı karşılıyor mu?	1	2	3	4	5
2	Elde ettiğiniz şeyler, yaptığınız işe uygun mu?	1	2	3	4	5
3	Elde ettiğiniz şeyler, çalıştığınız kuruma yapmış olduğunuz katkıyı karşılıyor mu?	1	2	3	4	5
4	Gösterdiğiniz performans düşünülecek olursa, hakkınız olanları elde ettiğiniz söylenebilir mi?	1	2	3	4	5

## APPENDIX – H

### INTERPERSONAL JUSTICE SCALE

Aşağıda, sizin hakkınızda (maaş, zam, ikramiye, prim, terfi, statü, eğitim olanakları ve benzeri gibi konularda) **KARAR VEREN YÖNETİCİNİZİN DAVRANIŞLARINA İLİŞKİN** sorular bulunmaktadır. Sizden istenen bu soruları okuyarak, sizin durumunuzu ne ölçüde yansıttığını aşağıdaki düzenlemeye uyacak biçimde belirtmenizdir.

- 5 **Tamamen**  
4 **Büyük ölçüde**  
3 **Bir miktar**  
2 **Çok az**  
1 **Hiç**

		1 (Hiç)	2 (Çok az)	3 (Bir miktar)	4 (Büyük ölçüde)	5 (Tamamen)
1	Yöneticiniz size kibar davranıyor mu?	1	2	3	4	5
2	Yöneticiniz size değer veren bir biçimde davranıyor mu?	1	2	3	4	5
3	Yöneticiniz size saygılı davranıyor mu?	1	2	3	4	5
4	Yöneticiniz ters ifadeler kullanmaktan kaçınıyor mu?	1	2	3	4	5

## APPENDIX – I

### INFORMATIONAL JUSTICE SCALE

Aşağıda, sizin hakkınızda (maaş, zam, ikramiye, prim, terfi, statü, eğitim olanakları ve benzeri gibi konularda) **KARAR VEREN YÖNETİCİNİZİN SİZİNLE OLAN İLETİŞİMİNE İLİŞKİN** sorular yer almaktadır. Sizden istenen bu soruları okuyarak, sizin durumunuzu ne ölçüde yansıttığını aşağıdaki düzenlemeye uyacak biçimde belirtmenizdir.

- 5 **Tamamen**  
4 **Büyük ölçüde**  
3 **Bir miktar**  
2 **Çok az**  
1 **Hiç**

		1 (Hiç)	2 (Çok az)	3 (Bir miktar)	4 (Büyük ölçüde)	5 (Tamamen)
1	Yöneticiniz sizinle olan iletişimde açık yürekli davranıyor mu?	1	2	3	4	5
2	Yöneticiniz size ilişkin kararlar alırken izlediği yolu ayrıntılı bir biçimde açıklıyor mu?	1	2	3	4	5
3	Yöneticinizin yaptığı bu açıklamaları akla yatkın buluyor musunuz?	1	2	3	4	5
4	Yöneticiniz, sizinle ilgili kararların ayrıntıları hakkında sizi zamanında bilgilendiriyor mu?	1	2	3	4	5
5	Yöneticiniz, açıklamalarını herkesin ihtiyacına uygun bir biçimde yapıyor mu?	1	2	3	4	5

## APPENDIX – J

### PERCEIVED TASK VISIBILITY SCALE

Aşağıda yöneticinizin/takım liderinizin grup içindeki davranışları ile ilgili sorular bulunmaktadır. Sizden istenen bu soruları okuyarak, yöneticinizin davranışlarını ne ölçüde yansıttığınızı aşağıdaki düzenlemeye uyacak biçimde belirtmenizdir.

- 1 Kesinlikle katılmıyorum
- 2 Katılmıyorum
- 3 Biraz katılıyorum
- 4 Katılıyorum
- 5 Kesinlikle katılıyorum

		1 (Kesinlikle katılmıyorum)	2 (Katılmıyorum)	3 (Biraz katılıyorum)	4 (Katılıyorum)	5 (Kesinlikle katılıyorum)
1	Bir grup elemanı ortalamanın altında çaba gösterdiğinde yöneticim bunun farkındadır.	1	2	3	4	5
2	Yöneticim, yaptığım iş miktarının farkındadır.	1	2	3	4	5
3	Yöneticimin, benim ne kadar çalıştığımı fark etmesi genellikle zordur.	1	2	3	4	5
4	Yöneticim, grup elemanlarından birinin işi gevşettiğini fark eder.	1	2	3	4	5
5	Yöneticimizin, bizim ne kadar çok çalıştığımızı belirlemesi zordur.	1	2	3	4	5
6	Yöneticimin, işim için ne kadar çaba sarfettiğini belirlemesi zordur.	1	2	3	4	5

## APPENDIX – K

### SUBORDINATE DEMOGRAPHICS

Aşağıda sizinle ilgili demografik bilgilere ilişkin sorular bulunmaktadır. **Lütfen** bu soruları **eksiksiz** olarak doldurunuz.

Cinsiyetiniz: Erkek <input type="checkbox"/>	Kadın <input type="checkbox"/>
Yaşınız: .....	
Öğrenim düzeyiniz:	
İlk-Ortaokul Mezunu <input type="checkbox"/>	Yüksek Lisans Öğrencisi <input type="checkbox"/>
Lise Mezunu <input type="checkbox"/>	Yüksek Lisans Mezunu <input type="checkbox"/>
Üniversite Mezunu <input type="checkbox"/>	
Kurumda Çalışma Süreniz: .....	
Toplam çalışma süreniz (Daha önce çalışmış olduğunuz kurumlar dahil): .....	
Şu andaki yöneticinizle ne kadar zamandır birlikte çalışıyorsunuz?: .....	
Ne kadar zamandır bu gruptasınız? .....	
Şu andaki çalışma grubunuz kurulalı ne kadar zaman olmuş? .....	
Çalışma grubunuz kaç kişiden oluşmaktadır? .....	

**Lütfen bir sonraki sayfaya geçiniz.**

Aşağıda, grubunuz hakkındaki düşüncelerinizle ilgili sorular bulunmaktadır. Sizden istenen bu soruları okuyarak, sizin düşüncelerinizi ne ölçüde yansıttığımı aşağıdaki düzenlemeye uyacak biçimde belirtmenizdir.

- 1 Kesinlikle katılmıyorum**
- 2 Katılmıyorum**
- 3 Biraz katılıyorum**
- 4 Katılıyorum**
- 5 Kesinlikle katılıyorum**

	1 (Kesinlikle katılmıyorum)	2 (Katılmıyorum)	3 (Biraz katılıyorum)	4 (Katılıyorum)	5 (Kesinlikle katılıyorum)
Bu grup ile çalışmaktan memnunum.	1	2	3	4	5
Elimde olsa grubumu değiştirmek isterim.	1	2	3	4	5
Bu grup ile birlikte başka işlerde görev almak isterim.	1	2	3	4	5