



## Examination of Relation of Attitudes Regarding Ecological Dilemmas With Social Dominance Orientation

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### Abstract

The aim of this study is examination of the relationship between social dominance orientation and attitudes towards ecological dilemmas of university students. Also examination of differences of attitudes towards ecological dilemmas and social dominance orientation levels of students with their gender, economic status, and mother's education level are other secondary aims of the presented study. Social Dominance Orientation Scale (SDO) and Ecological Dilemmas Scale (EDS) were used for data collection. Participants were 100 university students from various universities who lived at İzmir. According to findings females differed significantly with lower SDO mean scores than males. No differences were found among groups, regarding economic status and mother's education variables, in terms of SDO scores and EDS scores. Social dominance orientation scores were appeared as best predictor of the EDS scores and %31 variance of attitudes towards ecological dilemmas were explained by SDO mean scores. Social dominance orientation and positive attitudes regarding ecological dilemmas were correlated negatively. Finding points out a relation where social dominance orientation tend to be higher, positive attitudes regarding ecological dilemmas tend to be lower or vice versa.

**Anahtar Kelimeler:** Ecological dilemmas, Social dominance orientation, University students, Attitudes

## Ekolojik İkilemler Hakkındaki Tutumların Sosyal Baskınlık Yönelimi ile İlişkisinin Araştırılması

### Özet

Bu çalışmanın amacı üniversite öğrencilerinin sosyal baskınlık yönelimi ile ekolojik ikilemlere ilişkin tutumlarının ilişkisinin araştırılmasıdır. Aynı zamanda cinsiyet, ekonomik statü ve anne eğitim düzeyine göre gruplar arasındaki sosyal baskınlık yönelimi ile ekolojik ikilemlere yönelik tutumlar açısından farklılıkların araştırılması çalışmanın diğer amaçlarıdır. Veri toplamada Sosyal Baskınlık Yönelimi Ölçeği (SBY) ve Ekolojik İkilemler Tutum Ölçeği (EİÖ) kullanılmıştır. Katılımcılar İzmir'de yaşayan, çeşitli üniversitelerde eğitim gören 100 üniversite öğrencisidir. Bulgulara göre kadınlar daha düşük SBY ortalamaları ile erkeklerden istatistiksel olarak anlamlı biçimde farklılaşmıştır. Ekonomik durum ve anne eğitimi değişkenleri açısından gruplar arasında SBY ve EİÖ puanları açısından anlamlı farklılıklar saptanamamıştır. Sosyal baskınlık yönelimi, EİÖ puanlarına ait varyansın %31'ini açıklamış, ekolojik ikilemlere ilişkin tutumların en iyi yordayıcısı olarak belirlemiştir. Sosyal baskınlık yönelimi ile ekolojik ikilemlere ilişkin olumlu tutumların negatif korelasyonu saptanmıştır. Bulgu, sosyal baskınlık yöneliminde yükseliş ile ekolojik ikilemlere yönelik olumlu tutumların düşüklüğü ya da tam tersi şeklinde bir ilişkiye işaret etmektedir.

**Keywords:** Ekolojik ikilemler, Sosyal baskınlık yönelimi, Üniversite öğrencileri, Tutumlar

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**Introduction**

Attitudes can be explained as psychological tendencies towards certain objects. A positive or negative psychological tendency which brings out the person's emotions, thoughts and behaviors towards any object which is psychologically significant for that person (Smith, 1968).

Prejudice is nothing but a negative attitude. It is worth to emphasize that the study of prejudice is one of the first study areas of social psychology (Pfeifer & Bernstein, 2003). According to Social Dominance Theory, since social dominance orientation is a predictor of prejudice towards 'the other', it can also be accepted as a powerful predictor of discrimination towards the 'outside groups' in other word so called 'inferior' groups (Sidanius, Pratto, Laar, & Levin, 2004).

Dualistic way of thought creates a separation between mankind and nature. It was suggested that perhaps original dualism between mankind and nature happened when mankind started to interact with nature and aimed to domesticate nature during the ancient times perhaps at the beginning of the Neolithic times. It is clear that mentioned dualistic way of thought which creates a separation between mankind and nature is a product of social constructions (Purser, Park, & Montuori, 1995).

Social constructions are important since they are involved in shaping related concepts regarding the human-nature conceptualizations. As a result it is obvious that social constructions are affecting the mankind-nature relationships. Most important, it is obvious that 'humanity' and 'nature' dualism provide opportunity regarding legitimatization of dominance.

Priority and importance of global ecological balance was emphasized in literature (McKibben, 1989; United Nations Environment Program [UNEP-WCMC], 2016). If carelessness regarding ecosystems keep rising, anxiety arousing ecologically unbalanced condition of globe may go beyond the limits of reversible destruction. Therefore comprehension of the importance of ecosystems and requirements for protection is vital. It is obvious that the mankind is part of the nature (Purser et al., 1995). Without suitable natural environment for example without oxygen which is byproduct of photosynthesis of plants -that has survival value for mankind too- the world will not be suitable for any breathing animals' life, including humans.

Social dominance orientation is accepted as a predictor of prejudice and discrimination towards the 'outside groups' in other words towards the 'inferior other' (Sidanius, Pratto, Laar, & Levin, 2004). Legitimatization of discrimination and hence justification of system, works through superiority beliefs (Jost & Banaji, 1994). It seems that social dominance orientation of mankind has an impact regarding environmental consequences (Milfont, Richter, Sibley, Wilson, & Fischer, 2013). Therefore it can be suggested that social dominance orientation and attitudes regarding ecological dilemmas could be related.

Under the light of the related literature the aim of this study was examination of the relationship between social dominance orientation and attitudes towards ecological dilemmas. At the same time, examination of differences of attitudes towards ecological dilemmas and social dominance orientation of individuals with their gender, socioeconomic status, and mother's education level were the secondary aims of the presented study.

### **Method**

The presented study has a descriptive, cross sectional design.

### **Participants**

Since university students are prospective young professionals of society who has probable impact regarding future of the society, investigation of university students' social dominance and ecological dilemma related attitudes is regarded as important. Data was collected from university students who live at İzmir. Data handled according to availability principle (snowball sampling) from students who are at İzmir to attend to various universities. The only criteria was being a university student. Ethical principles were followed; informed consent was taken from all participants. Participants were 100 university students with age range of 19 to 28. Mean age of participants was calculated as 22.93 (SD=2.09). Demographic information regarding sex, economic status, and mother's education level of participants were presented in Table 1.

**Table 1. Descriptives of Demographic Variables (N=100)**

Variables	Groups	n
Gender	Female	66
	Male	34
MothEd	Illiterate	1
	Literate	5
	PrimarySchool	48
	HighSchool	30
	University+	16
ES	Lowermiddle	5
	Middle	56
	Highermiddle	31
	High	8

MothEd: Education level of participant's mother, ES: Economic status

## Data Collection Instruments

### Demographic Information Form

Demographic information form was used to get information as participants' age, sex, economic status, and mother's education level.

### Social Dominance Orientation Scale (SDO)

Scale targets to measure discriminative and prejudicial attitude tendencies regarding group based superiority beliefs. Sidanius, Levin and Pratto (1996) developed the 7 point likert type original scale which has 16 items. Karaçanta (2002) conducted the Turkish standardization study. Cronbach's alpha, test-retest and split half reliability of the scale was informed as 0.85, 0.86 and 0.79 respectively. Since the scale aims to measure group based dominance orientation, items (2, 4, 7, 9, 10, 12, 14, 15) which are supporting equality and undiscriminating behaviors should be reverse coded.

In the presented study Cronbach's alpha for SDO scale was found as 0.84 and split-half reliability of the scale was found as 0.74.

### Ecological Dilemmas Attitude Scale (EDS)

Scale which was developed by Yalçın (2009) and targets to measure attitudes towards ecological dilemmas has 7 items. It is a 5 point likert type instrument (1=completely disagree and 5=completely agree). The items with the numbers 2 and 7 require reverse coding. High scores from scale are accepted as being more 'common interest oriented' regarding ecological dilemmas. On the other hand low scores from the scale interpreted as person's attitudes regarding ecological dilemmas are 'self-interest oriented'. Cronbach's alpha and test re-test

results were informed as 0.70 and 0.61 respectively. Since factor analysis revealed two factors, two subscales were informed by Yalçın (2009). ‘General welfare dilemmas’ factor includes the items 1, 3, 4, 5 and 6 and on the other hand ‘common field dilemmas’ factor includes the items 2 and 7. In the presented study Cronbach’s alpha and split half reliability for EDS were found as 0.62 and 0.80 respectively.

## Findings

### Results about the differences regarding SDO, EDS, and EDS subscales’ scores in terms of gender

In order to see differences regarding gender, analyses of variance (ANOVA) were used. Statistically significant differences were found between males and females in terms of SDO mean scores ( $F(1,98)=9,605$ ,  $p=0,003$ ;  $p<.05$ ). Findings revealed that males differed significantly with higher SDO mean scores ( $\bar{X}=50.88$ ,  $SD=15.54$ ) from females ( $\bar{X}=40.16$ ,  $SD=16.78$ ). According to this result it can be said that males reported higher social dominance orientation than females.

On the other hand, analyses revealed no statistically significant differences regarding gender in terms of EDS total mean scores, and subscales of EDS. These findings mean that no gender based differences were found between males and females regarding attitudes towards ecological dilemmas, general welfare dilemmas, and comon field dilemmas.

Descriptives and findings about the gender based differences regarding attitudes related with social dominance orientation, ecological dilemmas, general welfare and common field dilemmas were presented in Table 2.

**Table 2. Descriptives and ANOVA Findings Between Groups Regarding SDO, EDS and EDS Subscales Scores**

Variables	Group	N	$\bar{X}$	SD	F	p
SDO	female	66	40,16	16,78	9,605*	0,003
	male	34	50,88	15,54		
EDS	female	66	26,81	4,44	1,434	0,23
	male	34	25,58	5,60		
EDSGWD	female	66	20,21	4,22	2,725	0,10
	male	34	18,64	4,97		
EDSCFD	female	66	6,60	2,12	0,537	0,46
	male	34	6,94	2,24		

\* $p<.05$ ; SDO=Social dominance orientation, EDS=Ecological dilemmas scale, EDSGWD=EDS general welfare dilemmas, EDSCFD= EDS common field dilemmas

### **Results about the differences regarding SDO, EDS, and EDS subscales scores between different economic status groups**

ANOVA which was conducted to see differences regarding economic status revealed no significant differences between groups in terms of SDO ( $F(3,96)=1.251$ ,  $p=0.29$ ,  $p>0.05$ ), EDS ( $F(3,96)=1.030$ ,  $p=0.38$ ,  $p>0.05$ ), general welfare dilemmas ( $F(3,96)=1.087$ ,  $p=0.35$ ,  $p>0.05$ ), and common field dilemmas ( $F(3,96)=0.437$ ,  $p=0.72$ ,  $p>0.05$ ).

According to these results it can be said that no differences regarding different economic status levels were found in terms of attitudes towards ecological dilemmas, general welfare dilemmas, and common field dilemmas in this sample.

### **Results about the differences regarding SDO, EDS, and EDS subscales scores in terms of mother's education**

Since there were only one case in terms of 'illiterate' category of mother's education level, statistical analyses were conducted with four educational levels via exclusion of this category to see attitude differences regarding SDO, EDS and subscales of EDS on the base of mother's education level. Results of variance analyses revealed no statistically significant differences in terms of SDO ( $F(3, 94)=2.436$ ,  $p=0.07$ ), EDS ( $F(3, 94)=2.025$ ,  $p=0.12$ ), and general welfare dilemmas ( $F(3, 94)=1.147$ ,  $p=0.33$ ), and common field dilemmas ( $F(3, 94)=0.977$ ,  $p=0.40$ ) mean scores of groups that based on mother's education level. It can be said that no differences were found on the base of mother's education level regarding these participants' attitudes in terms of social dominance orientation and ecological dilemmas.

### **Results of correlation analysis**

Correlation analyses were conducted regarding relationships of variables as mother's education, economical status, social dominance orientation, total EDS scale scores and subscales of EDS which are 'general welfare dilemmas' and 'common field dilemmas' attitudes.

According to findings of correlation analyses which performed through Pearson correlation coefficient, mother's education correlated positively with economic status ( $r=.279$ ,  $p=.005$ ,  $p<.05$ ). Which means higher economic status is related with higher education level of mother or vice versa.

SDO scores correlated negatively with EDS scores ( $r = -.558$ ,  $p = .000$ ,  $p < .05$ ) and subscale of EDS 'general welfare dilemmas' ( $r = -.510$ ,  $p = .000$ ,  $p < .05$ ). It can be said that higher social dominance orientation is related with lower ecologically sensitive attitudes or vice versa.

Total EDS scores was found positively correlated with subscales of EDS as EDS 'common field dilemmas' ( $r = .376$ ,  $p = .000$ ,  $p < .05$ ) and 'general welfare dilemmas' ( $r = .897$ ,  $r = .000$ ,  $p < .05$ ). Relations between variables were presented at Table 3.

**Table 3. Correlations Between Variables**

Variables	Mother's Ed	EconomicSt	SDO	EDS	EDSCFD	EDSGWD
Mother'sEd	1					
EconomicSt	,279**	1				
SDO	-,005	-,114	1			
EDS	,012	,169	-,558**	1		
EDSGFD	-,052	,064	-,191	,376**	1	
EDSGWD	,038	,151	-,510**	,897**	-,072	1

\*\*correlation is significant at 0,001 level, Mother'sEd=Mother's education level, EconomicSt=Economic status, SDO=Social dominance orientation, EDS=Ecological dilemmas scale, EDSCFD= EDS common field dilemmas

### Results of regression analysis

Predictors of ecological dilemmas (EDS scores) were examined through stepwise regression analyses. As can be seen from Table 4, social dominance orientation (SDO) was appeared as best predictor of the EDS and %31 variance of EDS were explained by SDO scores.

**Table 4. Predictors of EDS According to Stepwise Regression Analyses**

Predictors	R	R <sup>2</sup>	B	Beta	SE	F	p
SDO	0,558	0,312	-0,159	-0,558	0,024	44,387*	0,000

\* $p < 0.05$  SDO=Social dominance orientation, EDS=Ecological dilemmas scale

### Discussion

The aim of this study was examination of the relationship between social dominance orientation and attitudes towards ecological dilemmas. At the same time, examination of differences of attitudes towards ecological dilemmas and social dominance orientation levels of students with their gender, socioeconomic status, and mother's education level were the secondary aims of the presented study.

Findings revealed that males differed significantly with higher social dominance orientation scores from females. Result seems parallel with literature (Okumuşoğlu, 2017; Schmitt, & Wirth, 2009; Sidanius, Pratto, & Mitchell, 2001). Females tend to have less group based discriminative attitudes than males. Social identity theory suggests that gender identity can be one of the factors which has relation with differing group based dominance attitudes between males and females (Dambrun, Duarte, & Guimond, 2004).

On the other hand no differences were found between males and females regarding attitudes towards ecological dilemmas and EDS subscales scores which are 'general welfare dilemmas' and 'common field dilemmas'. It was suggested that (Stern, Kalof, Dietz, & Guagnano, 1995) values and beliefs may be underlying factors which are related with gender differences in terms of environmental attitudes. Beliefs predicted by values and on the other hand attitudes are related with beliefs; hence all three concepts are related (Stern et al., 1995). Since both male and female participants of the presented study are university students, it can be thought that being a university student resulted more homogeneous values and beliefs and hence more homogeneous attitudes regarding ecological dilemmas.

As can be seen in results while males tend to have higher group based discriminative attitudes, no gender based differences were found in terms of attitudes regarding ecological dilemmas for this sample.

It was informed that challenging gender related norms related with negative consequences (Yu et al., 2017) and young people commonly endorse gender inequality norms (Kagesten et al., 2016). In literature it was also claimed that interactions of growing child with social environment, with social ecology of the society is important while learning gender based norms (Basu, Zuo, Lou, Acharya, & Lundgren, 2017) and it was emphasized that formation of certain attitudes are more related with male role norms than other attitudes (West, 2016). Social dominance orientation could be one of them. Perhaps since group based discrimination is related with male role norms and also related with having more rights via gender, any change in terms of related attitudes could be difficult. Since it means giving up from something which seems as a 'birth right' for males, any change in terms of mentioned attitudes could be difficult. Future studies targeting related factors and interactions of factors are needed to investigate why while some attitudes are becoming homogeneous as a result of some factors for example as a result of education, while others not.

Analyses revealed no significant differences between different economic status groups in terms of SDO, EDS, and EDS subscales scores. Also, no statistically significant differences



were found regarding SDO, EDS, and EDS subscales scores in terms of mother's education. Since the participants were university students who are studying at İzmir region of Turkey it can be accepted as a limitation in terms of generalizability of the findings. Some factors which might be related with this homogeneity like being a university students, and general social climate should be examined via prospective studies. For example wider society based sampling which includes participants from various regions of Turkey with different educational levels, with different occupations is proposed. Also quato sampling for providing a certain level of equivalence in groups regarding related factors as different mother education levels is proposed and lack of this can be mentioned as a limitation of the presented study.

Socialization hypothesis claim that an adult's values and beliefs therefore an adult's attitudes are related with the socio economic conditions of the childhood of his or her own (Egri & Ralston, 2004). On the other hand in literature it was suggested that birth cohort plays an important role regarding individual's attitudes, values and beliefs. Environmental concern variations are link to birth cohort changes (Mohai & Twight, 1987). It was also suggested that related factors regarding attitudes towards ecological dilemmas changes across times. According to this, for example ideas regarding funds for environmental protection or environmental concerns are not related to some factors as exposure to environmental events, social structure and cultural context in linear ways which is constant across birth cohorts. On the contrary it was claimed that attitudes regarding ecological concerns related to various mentioned factors in nonlinear ways (Pampel & Hunter, 2012).

In this sample self-report of economic condition due to family income was handled. As pointed out by Oakes and Rossi (2003) socio economic status is a multidimensional concept and therefore its measurement is difficult. Regarding the fact that all participants are university students their social level can be accepted as equal and for this sample this might be a reason of no difference finding among different mother's education levels and different family economic levels in terms of SDO, EDS, and EDS subscales scores.

Social dominance orientation was appeared as best predictor of the EDS scores and %31variance of attitudes towards ecological dilemmas were explained by social dominance orientation tendencies. Social dominance orientation and positive attitudes regarding ecological dilemmas were correlated negatively. Which points out a relation where positive attitudes regarding ecological dilemmas tend to be high, social dominance orientation tend to be low, or vice versa. It seems parallel with the claim which suggests a relation between

social dominance orientation and environmental unsensitivity and rejection of some ecologically important unbalances (Jylhä, Cantal, Akrami, & Milfont, 2016).

It was claimed that world view of individuals who are high in social dominance orientation would be more competitive and less cooperating with the ‘others’ (Duckitt, 2001). It was also informed that lower cooperativeness character dimension is related with higher social dominance tendencies (Okumuşoğlu, 2017). These mentioned results seems parallel with the result of the current study which points out that positive attitudes regarding ecological dilemmas tend to be less in people whose social dominance orientation tend to be high.

The aim of this study was examination of relationship between social dominance orientation and attitudes towards ecological dilemmas. As can be seen from the results, social dominance orientation and attitudes regarding ecological dilemmas were found negatively related with each other. As previously mentioned, dualistic conceptualizations creates a separation between mankind and nature (Purser, Park, & Montuori, 1995) and social constructions regarding nature-human conceptualizations are affecting the mankind-nature relationships. Therefore it seems obvious that ‘humanity’ and ‘nature’ dualism provide opportunity regarding legitimatization of destructive dominance of mankind. On the other hand since mankind is part of the nature (Purser et al., 1995), priority and importance of global ecological balance should be understood before carelessness regarding ecosystems will push the ecologically unbalanced condition of globe to go beyond the limits of reversible destruction (McKibben, 1989; UNEP-WCMC, 2016). Although the legitimatization of discrimination and hence justification of system, works through superiority beliefs (Jost & Banaji, 1994), people who are not sensitive enough regarding ecological dilemmas need to be discover the fact that without suitable natural environment, nobody could be able to survive. For example without oxygen which is by product of photosynthesis of plants -and which has survival value for mankind too- the world will not be suitable for any breathing animals’ life, including “superior”(!) ones.

Therefore, as a conclusion, prospective studies regarding educational plans are needed and proposed since findings emphasize the importance of working for lowering social dominance attitudes and improving ecological sensitivity before unbalances regarding ecosystems go beyond the limits of reversible destruction. Also, as some other suggestions for future research, studies with wider society based quato sampling which includes participants from various regions of Turkey with different educational levels, with different occupations and family backgrounds are also proposed.

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