



## PERCEPTION OF ASSOCIATIVE GENDER IN DIFFERENT AGE GROUPS-A TURKISH LANGUAGE CASE

FARKLI YAŞ GRUPLARINDA ÇAĞRIŞIMSAL CİNSİYET ALGISI-TÜRKÇE BAĞLAMINDA

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### Makale Bilgisi

Türü: Araştırma makalesi  
Gönderildiği tarih: 30 Eylül 2022  
Kabul edildiği tarih: 9 Ocak 2023  
Yayınlanma tarihi: 20 Haziran 2023

### Article Info

Type: Research article  
Date submitted: 30 September 2022  
Date accepted: 9 January 2023  
Date published: 20 June 2023

### Anahtar Sözcükler

Türkçe; Çağrışimsal Cinsiyet;  
Toplumsal Cinsiyet; Yaş

### Keywords

Turkish; Associative Gender; Social Gender; Age

### DOI

10.33171/dtcjournal.2023.63.1.8

### Öz

Türkçede dilbilgisel cinsiyet olgusundan söz edilemez. Ancak biyolojik cinsiyet doğrultusunda sözlüksel cinsiyetin var olduğunu ve adlara sözlüksel olarak yansıdığını söylemek olasıdır. Biyolojik cinsiyetten bağımsız, sözcükleri eril ya da dişil olarak işaretleyen örtük ve çağrışimsal cinsiyetin varlığından da söz edilebilir. Türkçede toplumsal cinsiyet öne çıkan bir nitelik taşımaktadır. Toplumsal cinsiyet temelinde, sözgelimi “çocuk” sözcüğünün dilsel bağlama dayalı olarak yapısal görünmezlikle erkeği işaretlemesi örtük cinsiyeti, belirli sözcüklerin (sözgelimi otobüs şoförü, sekreter) toplumsal-psikolojik deneyime dayalı olarak yine yapısal görünmezlikle erkeği ya da kadını işaretlemesi ise çağrışimsal cinsiyeti göstermektedir. Bu çalışmanın amacı, belirli ulamlar (renk, hayvan, sebze-meyve, giysi, beden, ulaşım, spor, meslek, materyal, doğal özellik-bitki) kapsamında Türkçe sözcüklerde olası örtük cinsiyetin çağrışimsal düzlemdeki görünümünü betimlemektir. Bu amaç doğrultusunda, çağrışimsal cinsiyetin Türkçedeki algılanışının saptanması için tarama modeline dayalı olarak bir sormaca hazırlanmıştır. Kapalı uçlu nitelik taşıyan 3 seçenekli (eril, dişil, yansız) sormaca farklı yaş gruplarından oluşan katılımcılara (N 400) uygulanmıştır. Katılımcıların, çağrışimsal cinsiyet işaretlemelerinde yansızlık yönünde bir baskınlık olduğu görülmektedir. Bunu sırasıyla eril ve dişil işaretleme izlemektedir. Veri tabanı bağlamında, çocukluktan yetişkinliğe uzanan sürece bakıldığında toplumsal cinsiyet yanlılığı eril-dişilden yansız doğru değişmektedir. Başka bir deyişle, çocukların cinsiyeti belirleme eğilimleri daha çok eril-dişil üzerinde yoğunlaşırken artan yaşla birlikte cinsiyet atama eğilimi azalmaktadır. Diğer bir sonuç ise erkek katılımcıların kadın katılımcılardan daha fazla eril işaretlemesidir. Bu görünüm, toplumsal cinsiyet algısı ile özdeşleştirilebilir.

### Abstract

Turkish has no noun classes or grammatical gender. However, in terms of biological gender, it can be said that lexical/semantic gender is reflected in nouns lexically. Although Turkish has no grammatical gender, it does have various means based on a semantic system in which nouns are assigned to a gender according to its referent's biological sex to recognize gender. It can also be said that there is a covert gender marking that denotes some person reference words as masculine or feminine. The aim of this study is to describe the phenomenon of associative gender, which carries the social-psychological context, in the case of certain categories (color, animal, vegetable/fruit, clothing, body, transportation, sports, profession, materials, and natural features/plants). Also, it was aimed at seeing the current associative gender perceptions of the lexicalized covert words (e.g., hemşire 'nurse', gömlek 'shirt') based on the assumption that the associative gender perception of sociocultural context may change in parallel with social changes. For this aim, how participants from different age groups (N 400) perceive gender in Turkish is researched. A survey consisting of close-ended questions with 3 point-rating scale (masculine, feminine, neutral) regarding each category was conducted. The most general conclusion in this study is that in the associative gender assignment, neutral is dominant. This is followed by male and female dominance. In terms of the context of the database, gender bias varies from masculine-feminine to neutral when the process from childhood to adulthood is considered. In other words, while the children's perception in marking gender is more masculine-feminine oriented, the characteristics of the language appear more prominently and the tendency to assign gender decreases with age. Another consequence is male participants marked more masculine than female participants. This may be identified with the social gender perception.

## 1. Introduction

In languages, generally, gender systems have been identified in grammatical, lexical/semantic, and social terms (Braun, 2000, 2001; Comrie, 1999; Corbett, 1991, 2014; Hellinger & Bußman, 2003). Grammatical gender is a noun class system which categorizes nouns as feminine (e.g., *la casa* ‘house’ in Spanish) or masculine (e.g., *el libro* ‘book’ in Spanish), or in some languages neutral gender (e.g., *das messer* ‘knife’ in German). Lexical gender, on the other hand, is based on semantic system in which nouns are assigned to a gender according to its referent’s biological sex. In some languages that lack noun classification, only biological gender is specified at the lexical level (e.g., *mum* and *dad* in English).

Social gender must also be explained. Bhasin (2003, s.2) defines social gender as a type of gender that has sociological and psychological characteristics that include roles and tasks that society assigns to women or men, unlike biological gender. The most important aspect of social gender that differs from biological sex is that it is inherited. When it comes to social gender, the term gender is based on the images and prejudices accumulated by the society and culture over the centuries. Language, which is a social institution and phenomenon, is closely related to social attitudes and behaviors. Counterparts of all kinds of values attributed to women and men who have different roles in social life settle over time in language and some linguistic expressions are made sense of based on gender.

According to Hellinger & Bußman (2003, s.11), “social gender has to do with stereotypical assumptions about what are appropriate social roles for women and men, including expectations about who will be a typical member of the class of, say, surgeon or nurse. Deviations from such assumptions will often require overt formal markings, as in *female surgeon* or *male nurse*”.

In language, social gender (Hellinger, 1990) coincides with covert gender (Braun, 1997, 2001). Social gender emphasizes the social causes of masculine or feminine bias, whereas covert gender emphasizes its structural invisibility. For example, gender-related associations in terms of person reference terms in social gender are covertly represented in the deep semantic structure. Hellinger & Bußman (2003) exemplify this with the word ‘*jeweler*’ and state that this word carries a covert masculine bias in addition to carrying a neutral content in the perceptual level. Social-cultural assumptions based on the roles of men and women lie behind this bias.

### Gender in Turkish

Turkish has no noun classes or grammatical gender. However, in terms of biological gender, it can be said that lexical/semantic gender is reflected in nouns lexically. Turkish nouns and their modifiers are not classified as masculine, feminine, or neutral. That is, since nouns are not divided into genders grammatically, anaphoric pronouns, adjectives, and verbs are not marked in terms of gender. The third singular pronoun *o* 'he/she/it' does not specify gender in Turkish. For example, as can be seen in the sentence *O gidiyor* 'He/she/it is going', there is no gender marking in pronoun and verb.

Even If Turkish has no grammatical gender, it does have various means based on semantic system in which nouns are assigned to a gender according to its referent's biological sex to recognize gender. In other words, although there is no grammatical gender in Turkish, gender transfer is seen at the lexical semantic level in various ways. The lexical marker (*kadın* 'woman'/*erkek* 'man', *kız* 'girl'/*oğlan* 'boy') is used to refer to women and men. Reflection of the culture that attaches importance to kinship relations is also found in the language and lexical diversity based on gender can be seen clearly (*teyze* 'maternal aunt', *hala* 'paternal aunt', *dayı* 'maternal uncle', *amca* 'paternal uncle', etc.). Another aspect of lexical gender appears in address forms (*hanımefendi* 'lady, madam', *beyefendi* 'gentleman', etc.). In addition, it is seen that femininity and masculinity are expressed in the language (*tavuk* 'chicken' - *horoz* 'rooster', *koç* 'ram' - *koyun* 'sheep' etc.). Many names that refer to people are gender-neutral. When gender should be emphasized, adjectives such as *girl*, *female* and *male* are added (*kadın doktor* 'female doctor', *erkek doktor* 'male doctor').

However, in some borrowed words and suffixes, gender marking can be overtly traced. This can be exemplified by the words such as *kral* 'king' (m) – *kraliçe* 'queen' (f), *müdür* 'manager' (m) – *müdire* 'manageress' (f), *dansör* 'dancer' (m) – *dansöz* 'female dancer' (f), *muallim* 'teacher' (m) – *muallime* 'female teacher' (f) and so on. As could be seen in these examples, grammatical gender and lexical gender overlap, even though they are very few.

It can also be said that there is a covert gender marking that denotes some person reference words as masculine or feminine. In other words, in spite of semantic neutrality, some lexical elements have the meaning of covert gender with structural invisibility. Certain professions (for instance, *otobüs şoförü* 'bus driver', *sekreter* 'secretary') which are used to refer to female or male gender based on the social-

psychological experience display the associative-covert gender (Braun, 2000, 2001). That is, the bus driver covertly marks as masculine, and if the term refers to a woman, it also takes on an overt lexical marking (kadın otobüs şoförü 'female bus driver'). It is also stated in the literature that in the past the word 'nurse' was considered as a woman. However, later males have been trained as a nurse too and 'nurse' has been assigned to a person whose responsibility is to care patients. Another example is the word *çocuk* 'child'. Though the word *çocuk* is lexically gender-indefinite, it is associated covertly with its male referent according to the linguistic context.

When the studies investigating the social gender phenomenon in Turkish are examined, it is seen that some of them are based on natural data and some of them are dictionary-based. In early studies focusing on social/covert gender, Braun (1997) hypothesises that the lack of grammatical gender in Turkish does not warrant gender-neutral semantics and she also puts forward that there is a covert gender bias that takes its roots in Turkish society. Braun (1997, s.168), who conducted a series of studies to test her hypotheses, published her first study on the Turkish forms of address. In this study, it was determined that there is masculine dominance in Turkish. Braun found that context can determine the social gender of words (1997). She also stressed that covert gender also remained unchanged. Her latest work (2001) on this subject is based on linguistic production, unlike her previous studies. The basic finding of that study is that gender marking is always more frequent for female than for male gender. As a result of all these studies, she concludes that there is covert gender in Turkish. Braun (2000, 2001) states that in Turkish female gender is expected to be marked more because most of the words have masculine meaning as generic and unless they are modified by words that mark women, they are considered to be male.

In their study on associative gender which was conducted with university students, Kerimoğlu and Doğan (2015) denominated the sociocultural gender related to psycho-social context. Their results showed that masculine dominance in language came to the fore, followed by neutral and feminine markings.

Çolak (2019, s.121) found in her large-scale study conducted with adults that Turkish words had a predominantly masculine dominance in their social gender. This is followed by neutral and feminine markings.

According to the results of the study conducted by Peçenek & Gökmen (2019) on the associative gender perception of 200 high-frequency words in certain categories in Turkish, Turkish words contain 63% neutrality.

When it comes to dictionary-based studies, Castagneto & D'Amora (2006) examined gender differences in the Turkish Word Thesaurus for the first time. In their detailed study, they observed gender disparity and male bias.

In the study of Çubukçu, Eşme & İleriten (2010), it was sought to answer the question of which lexemes reflect men and women in the TDK Turkish Dictionary and whether these linguistic units contain sexism in the traditional sense. In the study, it was observed that 767 lexemes associated with men and women were predominantly masculine in terms of quality and quantity.

Doğan (2011) made a description of the word types that expressed gender in terms of lexical and semantic items in Turkish according to the TDK Turkish Dictionary. The words referring to men and women were identified in five categories: nouns, adjectives, adverbs, verbs, and exclamations.

### **Aim**

As can be seen from the theoretical framework, the databases on which the studies focusing on gender in Turkish were carried out based on two domains. The first is based on dictionary-based studies and the second is on natural/behavioural data-based studies.

On the other hand, it is seen that the descriptions made in natural data-based studies in the literature are mostly directed towards adult perception. In this study, from the perspective of dictionary data frequency, the case of associative gender related to sociocultural context was tried to be examined on a scale extending from child to adult.

The aim of this study is to describe the phenomenon of associative gender, which carries the social-psychological context, in the case of certain categories. For this aim, how participants from different age groups perceive gender in Turkish is investigated.

### **Methodology**

#### **Participants**

The participant group consisted of 200 female and 200 male individuals with 4 age groups. The participants were 100 primary school students (1st group, mean age =8.5), 100 primary school secondary stage students (2nd group, mean age =12.5), 100 high school students (3rd group, mean age =16.5), and 100 university students (4th group, mean age =24), making a total of 400 Turkish students.

## Materials and procedure

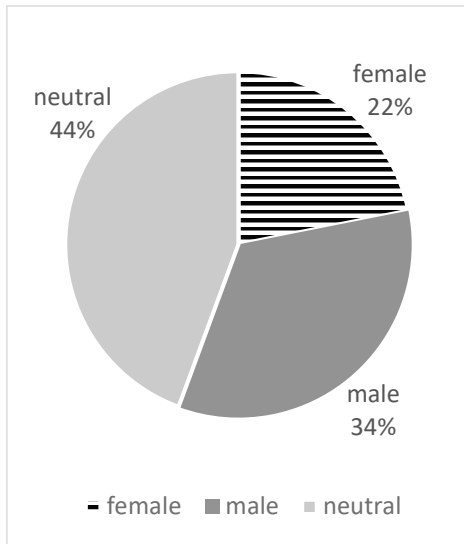
The categories of associative gender that are questioned are colour, animal, vegetable/fruit, clothing, body, transportation, sports, profession, material and natural features/plants. Each category includes 10 items selected from a previous study (Peçenek & Gökmen 2019) in which 200 adults (mean age =24) assigned gender to 20 words for each category with the maximum frequency listed in the book entitled 'A Frequency Dictionary of Turkish' (Aksan, Aksan, Mersinli & Demirhan, 2017). Thus, 10 items that received the most feminine and masculine markings in all categories are selected and prepared for the list of this study. In the selection of these categories and categorical items, lexicalized but semantically covert person reference words were also included in the study. The aim is to see the current associative gender perceptions of the lexicalized covert words (imam, hemşire 'nurse', gömlek 'shirt'...) based on the assumption that the associative gender perception of sociocultural context may change in parallel with social changes. A questionnaire consisting of close-ended questions with 3 point-rating scale (masculine, feminine, neutral) for each category was conducted.

In the data analysis process, we used the multinom function from the nnet package (Venables & Ripley, 2002) in R (R Core Team 2013) to estimate a multinomial logistic regression model. Before running our model, we chose the level of our outcome that we wish to use as our baseline and specify this in the relevel function. Then, we run our model using multinom. The multinom package does not include p-value calculation for the regression coefficients, so we calculate p-values using Wald tests (hereby z-tests).

## 2. RESULTS

In the analysis process of the data, a database consisting of 40,000 items was accessed. In presenting the findings, the prominent items of each category were given by considering statistical values. Firstly, a general assessment was made for each of the ten categories, followed by an assessment in accordance with age groups and biological sex.

In the general assessment, participants appear to have a neutral orientation of 44% of the associative gender markers for 100 words in the ten categories selected (see Table 1 and Graph 1). This is followed by male and female marking.



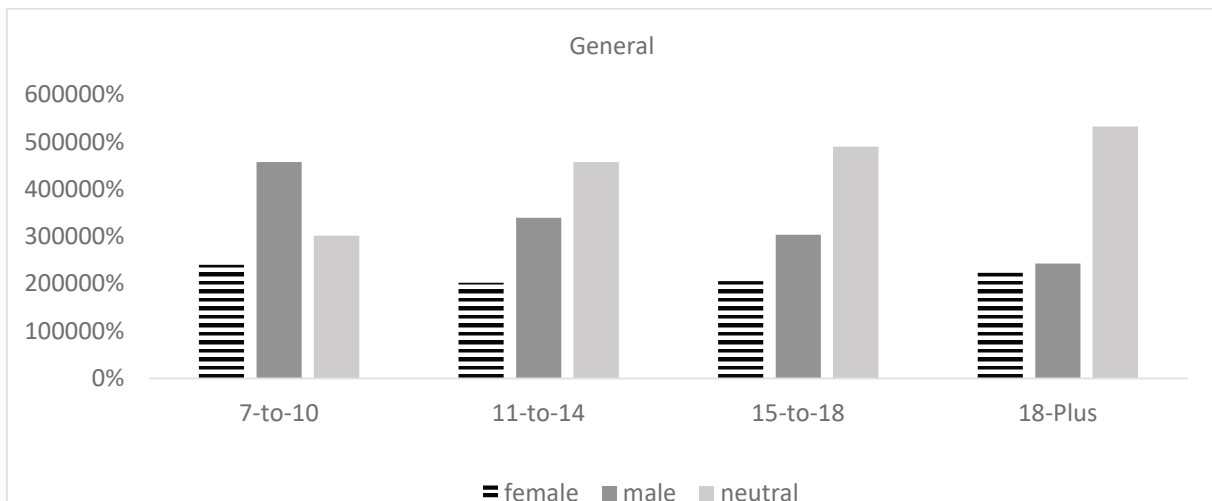
Graph 1. Associative gender orientations of participants

Table 1. Descriptive scores and standard errors (in parenthesis)

	male	female	neutral
Man	Mean (SE)	Mean (SE)	M (SE)
7-to-10	0.491 (0.007)	0.235 (0.006)	0.273 (0.006)
11-to-14	0.356 (0.006)	0.193 (0.005)	0.450 (0.007)
15-to-18	0.360 (0.006)	0.219 (0.005)	0.419 (0.006)
18+	0.225 (0.005)	0.260 (0.006)	0.514 (0.007)
Woman			
7-to-10	0.385 (0.006)	0.296 (0.006)	0.317 (0.006)
11-to-14	0.297 (0.006)	0.238 (0.006)	0.463 (0.007)
15-to-18	0.253 (0.005)	0.222 (0.005)	0.523 (0.006)
18+	0.201 (0.005)	0.205 (0.006)	0.593 (0.007)

### 3.1. Age group

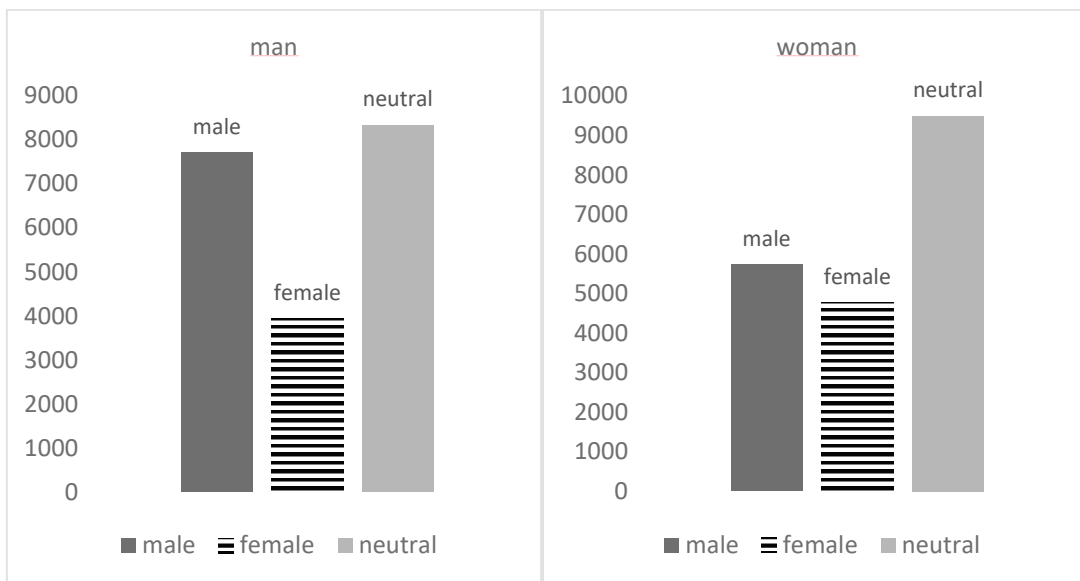
Looking at the age groups within itself, it appears that the neutral marking emerged except for the first group. In the first group, male gender assignment is prominent. As the age group increases, the male ratio decreases, and the neutral ratio increases. The ratio of female gender markers appears to be close to each other in all groups (See Graph 2, Table 3).



Graph 2. General results of age groups

### 3.2. Sex

The primary aim and question of this study is to describe associative gender appearances in the context of age groups variable, but also to include observations emerging within the framework of biological gender/sex variable. In this direction, it is seen that the neutral gender markings of both male and female participants are significantly higher than the others. Associative gender markings of male and female participants are reflected in Graph 3. Then, it is seen that male participants mark more masculine than women (see Graph 3).



Graph 3. General results of biological gender

### 3.3. Categories: General result

In all categories, it was found that masculine or feminine gender assignment to the words was made distinctly, and masculine assignment was predominantly made. However, this does not alter the apparent prominent appearance in the direction of neutral assignment (see Table 2, Graph 1). For example, the ratio of neutral assignment in the categories of color, vegetable-fruit, clothing, body, transportation, profession and natural features clearly demonstrates this situation.

Table 2. Categories: a general result

	color	animal	veg.-fru.*	clothing	body	transp.*	sport	profess.*	material	natural f.*
male	0.36(0.01)	0.37(0.01)	0.27(0.01)	0.25(0.01)	0.21(0.01)	0.35(0.01)	0.39(0.01)	0.38(0.01)	0.38(0.01)	0.27(0.01)
female	0.25(0.01)	0.31(0.01)	0.22(0.01)	0.35(0.01)	0.18(0.01)	0.14(0.01)	0.14(0.01)	0.21(0.01)	0.28(0.01)	0.25(0.01)
neutral	0.39(0.01)	0.32(0.01)	0.50(0.01)	0.40(0.01)	0.61(0.01)	0.52(0.01)	0.47(0.01)	0.41(0.01)	0.34(0.01)	0.48(0.01)



veg.-fru.\* vegetable-fruit, transp.\* transportation, profess.\* profession, natural f.\* natural features-plants.

**Color (black, blue, brown, crimson, gray, navy blue, orange, pink, purple, red)**

In general, when looking at the color category, it is seen that the participants marked pink and purple as feminine; navy blue, blue, black, brown as masculine; and red, crimson, orange, gray as highly neutral. In addition, it can be said that the crimson's neutral and feminine marking values are ~~very~~ close to each other when looking at the statistical results in more detail.

When we look at the color category in terms of age groups, we see that male gender assignments are made in the first and second age groups, whereas in the third and fourth groups, gender assignments are similar to the other item categories. In the first and second groups, a consensus is reached in masculine assignment in dark blue, blue, black, gray, and brown items, and similarly neutral assignment in orange, blue, brown, and gray in the third and fourth groups. In addition, it is striking that the color purple is marked as feminine in the four groups.

Pink and purple are marked feminine by both female and male participants. In the same vein, blue, brown, and navy blue are marked masculine. Gray and orange are considered neutral by women and men. The color crimson is marked neutral by men and feminine by women. Also, black and red are marked as having different genders by men and women.

**Animal (bear, bird, butterfly, cat, chicken, dog, horse, lion, rabbit, wolf)**

In the animal category, all items are highly made gender assignments. For instance, bear, lion, wolf, horse, and dog are marked masculine, and butterfly, cat, chicken, bird, and rabbit are marked feminine.

In terms of age variable, the words bear, lion, and wolf are marked as masculine in all groups, yet butterfly is marked as feminine. 1st and 2nd groups' gender assignments in butterfly, bird, cat, rabbit, bear, lion, wolf, dog, and horse are the same. In the first two groups, there was relative uncertainty about the gender of chicken, whereas in the third and fourth groups, there was no specific gender assignment: in other words, it's lexicalized. The word chicken displays lexical gender as well as neutrality as a species name. In informal language, lion and bear carry different figurative semantic value when associated with the markings of male

participants. The word bear represents rudeness, and the word lion expresses courage.

In terms of the gender of the participants, both female and male participants marked masculine for bear, lion, and wolf and feminine for butterfly, bird, cat, and rabbit. In terms of male and female participants what is striking is that there is no symmetry in the neutral marking as there is in others. For example, dog, chicken, and horse are marked differently by male and female participants. For chicken, men marked feminine, women marked neutral while dogs and horses are marked masculine by men. Gender assignments for these sorts of animals suggest that they can be associated with participants' experience of the world.

**Vegetable/fruit (apricot, aubergine, cherry, fig, onion, pepper, plum, potato, pumpkin, tomato)**

In the vegetable-fruit category, it was determined that only a significant feminine appointment was made to the word cherry, and no salient masculine assignments are made. For other items neutral assignments are made as displayed in Table 2.

Gender assignments of Group 1 differ significantly from other groups. In this group, only masculine and feminine assignments have been made and the concentration is on the masculine. In the other three groups, neutral marking is noticeably remarkable. The word cherry in the majority of age groups is marked as feminine.

Cherry is the only word that both male and female participants demonstrate consensus in assignments of feminine gender. In the word of pepper, it is seen that the evaluations of men and women differ, that of women mark as masculine, and that of men neutral. In general, the vegetable-fruit category is perceived as neutral by the participants.

**Clothing (attire, belt, dress, jacket, skirt, slipper, shirt, tie, trousers, umbrella)**

The clothing category is generally perceived as neutral by the participants. In this category, tie, shirt, belt, and jacket are marked as masculine, skirt and dress as feminine, and attire, umbrella, slipper, and trousers as neutral.

In this category, the tendency exhibited in general is that groups 1 and 2 behave differently from groups 3 and 4. On the other hand, these groups show the same marking behaviors within themselves. In all age groups, attire, umbrella, and slipper

were marked neutral. In addition to this, in all age groups, tie is masculine, skirt and dress are feminine.

Both women and men made a feminine marking on dress and skirt, masculine for belt and tie, and neutral for attire, slipper, and umbrella. In other words, jacket, shirt and trousers, gender assignments of men and women are different. In Turkish society, that skirt and dress are seen as clothing items specific to women and tie and belt are more specific to men has determined or oriented the participants' tendencies. Social roles as well as social perceptions can be seen from these results. The fact that a word like *pantolon* 'trousers/pants' is considered neutral indicates that the social perception of some clothes may also change over time. In other words, trousers, which were once used only by men in Turkish society, are used by both men and women today. This result is a significant example of the change in social perception over time.

#### **Body (arm, back, eye, foot, hair, head, heart, leg, lip, shoulder)**

When we look at the general results on the body category, most of the words are considered neutral. In terms of age groups, in this category, it appears that neutral marking has been made for all items except the lip. As we have just mentioned, in this category a clear gender marking based on biological gender is only seen in the word lip. For this word, men have made a higher feminine gender marking while women have made a neutral marking.

#### **Transportation (captain, driver, map, pilot, port, railway, ship, target, traffic, travel)**

In the transportation category, neutral marking stands out. When the gender assignments of the members in the transportation category are considered, it is seen that the masculine assignment in the words captain and pilot stands out. Another observation is that there are very few feminine markings for this category. In addition, the words map, port, railway, ship, target, traffic and travel are neutral categorical items. The common feature of these words is that they do not have any references to a person or an animal.

When this category is examined in terms of age groups, it is seen that the evaluation of Group 1 is different from the other groups. The tendency of group 1 assignments is largely masculine. It is also noteworthy that in all of the groups, no significant feminine assignment was made.

The results based on biological gender are identical to the general view.

**Sports (ball, game, goal, marathon, match, pool, race, sports, stadium, track)**

As displayed in Table 3, in the sports category neutral marking stands out and there is no salient feminine marking. There is no salient feminine gender assignment in any group. Match, ball, goal, track, and stadium are masculine, whereas pool, marathon, race, sports, and game are neutral in all groups.

Match, goal, and stadium are masculine, pool and game are neutral in male and female participants.

Social perception of these words is predominantly thought to be masculine due to the fact that these words (match, goal, and stadium) are of interest to men.

The words that men and women attach masculine as gender appear as ball, goal, match, stadium, and track. Game, marathon, pool and sport are clearly gender-neutral.

**Profession (architect, author, doctor, driver, imam, military officer, nurse, police, soldier, teacher)**

When age groups are examined in detail, it is clear that all groups mark nurse as feminine only. It is seen that the evaluation of Group 1 is different from the other groups in terms of the word soldier. The primary school students showed different tendencies, unlike other groups, they marked soldier as masculine in a salient manner or neutral even a little, and there is no feminine marking.

Nouns such as imam ‘priest in a mosque’, soldier, military soldier and driver are marked masculine mostly. Also, because it is a generic noun, the word author is marked neutral in all groups. In the profession category, there are a large number of items with significant gender assignments. The word hemşire ‘nurse’ is coded feminine in parallel with social perception, likewise imam, soldier, military officer and driver are coded as masculine. The words imam and soldier are seen as lexicalized by showing covert masculine gender.

In the words architect, author, doctor, police and teacher, neutral assignments are evident. Nouns such as imam, soldier, military officer, and driver are mostly marked as masculine.

It is seen that women and men mark the same associative gender in the profession category. In other words, men and women think alike. Significantly, hemşire 'nurse' got the feminine gender marking, whereas imam got the masculine. However, it is seen that the vice versa is also possible.

**Material (crystal, glass, gold, iron, lead, petroleum, silk, silver, steel, wood)**

Generally, in the material category, all words except glass were marked feminine or masculine gender.

In this category, the first three groups generally gave the same answer, whereas the fourth group, that is to say, the adult group showed different tendencies. In this age group, unlike other groups, the words iron, lead, petroleum, steel, and wood are marked neutral. That gender assignment for material is more neutral in the fourth group has showed the increased knowledge of the world. Silk, gold, crystal (female) and wood (male) received the same gender assignments in all four groups.

In this category, gender assignments seem to be made at a very high rate. It is observed that male and female participants have parallel evaluations of certain category items at a high level of significance. For example, both female and male participants coded crystal, gold, silk and silver as feminine, and iron, lead, petroleum, steel, and wood as masculine.

**Natural feature-plant (flower, forest, land, mountain, nature, sea, soil, star, sun, tree)**

Natural feature-plant category items were predominantly marked as neutral except mountain and flower. The feminine coding of the word flower is also an expected result when considered in the context of world knowledge. Because the words women and flower can be said to demonstrate co-occurrence. In the same way, considering the phrase "dağ gibi adam" 'man like a mountain (literally)' (figurative meaning: hugeness) in Turkish, there is another co-occurrence between the words mountain and man. These examples reveal the reflection of stereotypes in society to language.

For this category it appears that the fourth group did not make a prominent masculine marking. In the age group of four, a dominance of neutral marking is determined. In this category, both female and male participants assign feminine gender for flower and neutral gender for soil. Also, women assign feminine gender for star and sun, and men assign masculine gender for the same words.

### 3. Discussion and Conclusion

The most general conclusion in this study is that in the associative gender assignment, neutral is dominant. This is followed by male and female dominance. When we look at the categories markings in the animal and material categories stand out as masculine.

Findings about neutral assignment do not overlap with the those of Çolak (2019), Kerimoğlu and Doğan (2015), Braun (1997). There is a masculine dominance in their studies. It is seen that this determination for masculine dominance is made on the examples that overlap, resemble or differentiate with the categories questioned in our study.

For example, Braun (1997) finds that the word *police* is marked as masculine. In our work, the word *police* is marked neutral. It is thought that the different conclusions of associative gender are derived from the changes in social life. In other words, police is not only marking masculine. It is clear that this constraint on social gender has changed over time. This word is thought to be a neutral mark since it is beginning to refer to a profession for a woman today. Another example of this kind of change is the word *nurse*. In the same way, male marking can also be assigned to a nurse today. A clear example of how experiences determine the way we perceive the world can be seen in the sports category. Words such as *match*, *goal* and *stadium* are considered as a field of interest for men and sports that men do in Turkish society. This is also reflected in associative gender as masculine.

Another example that the world of experiences directs the way of perceiving the world is the words *sürücü* (driver) and *şoför* (driver) in Turkish. The word *şoför* is masculine in the occupational category and the word *sürücü* is marked neutral in the transportation category. It is clear that *şoför* is perceived as masculine directly in the profession as in Braun (1997) and Kerimoğlu & Doğan (2015). Because *şoför* is used to be male and still marked as masculine. *Sürücü* (driver), which is a newer word, is seen as neutral because it has acquired a meaning including women.

Examples of stereotypical perceptions such as pink for females, blue for males are mostly faced in the color categorization. A similar tendency is seen in the study of Kerimoğlu & Doğan (2015). Another example is the feminine marking of the flower in the same study. The mapping of the 'bear' with the masculine in Çolak's (2019) study was also seen in our study. Apart from the examples given, the common categorical items reflect the male and female routines.

The differences in the results of these studies (for example, differences in the category of profession) are thought to show time-based changes in social life, and similarities show the invariance of some situations and phenomena at the conventional level (for example, the category of clothing).

On the other hand, in associative gender assignment for words, age is seen as a significant variable. In particular, male gender assignment in the 1st group is more than neutral and female gender assignments. In fact, by taking this into consideration it can be concluded that behavior patterns based on gender roles are given to girls and boys through the socialization process (Bem, 1985; Dökmen, 2010). As known, culturally formed social gender can change over time. The difference in the associative gender determination tendencies in the first group, which includes the youngest participants, actually verifies this opinion.

Moreover, in terms of the research context, gender bias varies from masculine-feminine to neutral when the process from childhood to adulthood is considered. In other words, while the children's perspective in marking gender is more towards masculine-feminine, the characteristics of the language appear more prominently and the tendency to assign gender decreases with age. However, as in the categories of clothing and profession, masculine-feminine roles are shaped by social perception and gain dominance as well.

Another consequence is male participants marked more masculine than female participants. This may be identified with the social gender perception.

## Appendix

Table 3: Descriptive scores and standard errors (in parenthesis) of four age groups

	color	animal	veg.- fru.*	clothing	body	transp.*	sports	profess.*	material	natural f.*
7-10										
male	0.51 (0.02)	0.46 (0.02)	0.38 (0.02)	0.25 (0.01)	0.25 (0.01)	0.58 (0.02)	0.60 (0.02)	0.57 (0.02)	0.49 (0.02)	0.31 (0.01)
female	0.30 (0.01)	0.35 (0.02)	0.33 (0.02)	0.49 (0.02)	0.22 (0.01)	0.11 (0.01)	0.11 (0.01)	0.17 (0.01)	0.29 (0.01)	0.29 (0.01)
neutral	0.19 (0.01)	0.20 (0.01)	0.29 (0.01)	0.26 (0.01)	0.53 (0.02)	0.31 (0.01)	0.29 (0.01)	0.26 (0.01)	0.22 (0.01)	0.40 (0.02)
11-14										
male	0.40 (0.02)	0.39 (0.02)	0.25 (0.01)	0.24 (0.01)	0.16 (0.01)	0.38 (0.02)	0.44 (0.02)	0.40 (0.02)	0.40 (0.02)	0.23 (0.01)

female	0.26 (0.01)	0.30 (0.01)	0.21 (0.01)	0.37 (0.02)	0.16 (0.01)	0.09 (0.01)	0.09 (0.01)	0.15 (0.01)	0.30 (0.01)	0.24 (0.01)
neutral	0.34 (0.02)	0.32 (0.01)	0.54 (0.02)	0.40 (0.02)	0.68 (0.01)	0.54 (0.02)	0.46 (0.02)	0.45 (0.02)	0.31 (0.01)	0.54 (0.02)
15-18										
male	0.25 (0.01)	0.34 (0.01)	0.27 (0.01)	0.24 (0.01)	0.18 (0.01)	0.33 (0.01)	0.43 (0.02)	0.40 (0.02)	0.37 (0.01)	0.23 (0.01)
female	0.25 (0.01)	0.32 (0.01)	0.19 (0.01)	0.30 (0.01)	0.20 (0.01)	0.10 (0.01)	0.06 (0.01)	0.17 (0.01)	0.31 (0.01)	0.33 (0.01)
neutral	0.50 (0.02)	0.34 (0.01)	0.54 (0.02)	0.46 (0.02)	0.62 (0.01)	0.57 (0.02)	0.52 (0.02)	0.43 (0.02)	0.32 (0.01)	0.44 (0.02)
18 plus										
male	0.29 (0.01)	0.29 (0.01)	0.20 (0.01)	0.27 (0.01)	0.24 (0.01)	0.08 (0.01)	0.06 (0.01)	0.14 (0.01)	0.26 (0.01)	0.32 (0.02)
female	0.20 (0.01)	0.29 (0.01)	0.17 (0.01)	0.25 (0.01)	0.14 (0.01)	0.25 (0.01)	0.30 (0.02)	0.36 (0.02)	0.24 (0.01)	0.13 (0.01)
neutral	0.52 (0.02)	0.42 (0.02)	0.63 (0.02)	0.48 (0.02)	0.62 (0.02)	0.66 (0.02)	0.63 (0.02)	0.50 (0.02)	0.50 (0.02)	0.55 (0.02)

veg.-fru.\* vegetable-fruit, transp.\* transportation, profess.\* profession, natural f.\* natural features-plants.

\*An earlier version of this paper was presented at the 19th International Conference on Turkish Linguistics (Astana, 17-19 August 2018)

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## Summary

In this study, associative gender, which Kerimoğlu & Doğan (2015) define as the sociocultural gender aspect related to psycho-social context, was questioned based on words and in the survey conducted with university students, it was found that masculine dominance in language came to the fore, followed by neutral and feminine markings. Çolak (2019, p.121), in her large-scale study conducted with adults, found that Turkish words had a predominantly masculine dominance in their social gender. This is followed by neutral and feminine markings. According to the results of the study conducted by Peçenek & Gökmen (2019) on the associative gender perception of 200 frequently used words in certain categories in Turkish, Turkish words contain 63% neutrality.

As can be seen from the theoretical framework, the databases on which the gender studies in Turkish were carried out are based on two main domains. The first is based on dictionary-based studies and the second is based on natural/behavioural data-based studies.

On the other hand, it is seen that the descriptions made in natural data-based studies in the literature are mostly directed towards adult perception. In this study, on the basis of frequency dictionary data, the case of associative gender related to sociocultural context was tried to be examined on a scale extending from child to adult.

The aim of this study is to describe the phenomenon of associative gender, which has the social-psychological aspect, in the case of certain categories. For this aim, how participants from different age groups perceive the gender in Turkish is researched.

The participant group consisted of 200 female and 200 male individuals with 4 age groups. The participants were 100 primary school students (1st group, mean age =8.5), 100 primary school secondary stage students (2nd group, mean age =12.5), 100 high school students (3rd group, mean age =16.5), and 100 university students (4th group, mean age =24), making a total of 400 Turkish students.

The categories of associative gender that are questioned are color, animal, vegetable/fruit, clothing, body, transportation, sports, profession, material and natural features/plants. A questionnaire consisting of close-ended questions with 3 rating scale (masculine, feminine, neutral) was conducted for each category.

The main conclusion in this study is that in the associative gender assignment is neutral mostly. Then this is followed by male and female dominance. When we look at the categories, animal and material categories stand out as masculine.

Findings about neutral assignment do not overlap with the those of Çolak (2019), Kerimoğlu and Doğan (2015), and Braun (1997). There is a masculine dominance in their studies. It is seen that this determination for masculine dominance is made on the examples that overlap, resemble or differentiate with the categories questioned in our study. For example, Braun (1997) finds that the word *police* is marked as masculine. In our study the word *police* is marked neutral. It is thought that the different conclusions of associative gender are derived from the changes in social life. Another example of this kind of change is the word nurse. In the same way, male marking can also be assigned for a nurse today. A clear example of how experiences determine the way we perceive the world can be seen in the sports category. Words such as *match*, *goal* and *stadium* are considered as a field of interest for men and sports that men do in Turkish society. This is also reflected in associative gender as masculine. Another example that the world of experiences directs the way of perceiving the world is the words *sürücü* (driver) and *şoför* (driver) in Turkish. The word *şoför* is masculine in the occupational category and the word *sürücü* is marked neutral in the transportation category. It is clear that *şoför* is perceived masculine directly in the profession as in Braun (1997), and Kerimoğlu & Doğan (2015) because *şoför* is used to be male and still marked as masculine. *Sürücü* (driver), which is a newer word, is seen as neutral because it has acquired a meaning including women. Examples of stereotypical perceptions such as pink for female, blue for male are mostly faced in the color categorization. A similar tendency was found in the study of Kerimoğlu & Doğan (2015). The feminine marking of the flower in the same study can be seen as another similar finding. The mapping of the 'bear' with the masculine in Çolak's

(2019) study was within the same harmony in our study. Apart from the examples given, the common categorical items reflect the male and female routines.