Self-mentions and Attitude Markers in Turkish Research Article Abstracts

Buse ŞEN ERDOĞAN* iD

ABSTRACT

Metadiscourse markers are analyzed in many different languages in detail. This study focuses on two interactional metadiscourse markers: attitude markers and self-mentions in Turkish RA abstracts. In the study, two different scientific area, namely social sciences and natural sciences are compared regarding the use of attitude markers and self-mentions in RA abstracts. There are two questions to answer. The first one is related to the features of abstracts defined in the literature. Since RA abstracts are defined as an objective summery of an article, it is expected not to encounter attitude markers and self-mentions frequently. Because these two markers have the two main functions of reflecting the writer's attitude towards the topic of the study and to adjust the level of intimacy with the reader. Thus, this study questions whether RA abstracts are like how they are defined in terms of objectivity. Also, it searches whether there is any difference between social sciences and natural sciences related to the use of attitude markers and self-mentions. It is found that Turkish abstracts generally protect their objective stance by avoiding especially self-mentions. However, it is also discovered that social sciences show a more flexible attitude in this regard and use more attitude markers and self-mentions compared to natural sciences.

Keywords: Attitude Markers, Self-Mentions, Interactional Metadiscourse Markers, Genre Analysis, Turkish

Türkçe Araştırma Makalesi Özlerinde Kendini Anma ve Tutum Belirleyiciler

ÖZ

Üstsöylem belirleyicileri birçok farklı dilde detaylıca analiz edilmektedir. Bu çalışma da etkileşimsel boyutlu iki üstsöylem belirleyicisine odaklanmaktadır: Türkçe araştırma makalesi özlerindeki kendini anma ve tutum belirleyicileri. Çalışmada iki farklı bilimsel alan, sosyal ve doğal bilimler, araştırma makalesi özlerinde tutum belirleyicisi ve kendini anma kullanımları açısından karşılaştırılmaktadır. Cevaplanacak iki soru vardır. İlki özlerin alanyazında tanımlanan özellikleriyle ilgilidir. Araştırma makalesi özleri araştırmaların tarafsız özetleri olarak tanımlanmasından dolayı, kendini anma ve tutum belirleyicilere sık rastlanmaması beklenmektedir. Çünkü bu iki belirleyicinin yazarın çalışma konusu hakkındaki tutumunu yansıtmak ve okuyucuyla samimiyet seviyesini ayarlamak olmak üzere iki ana fonksiyonu bulunmaktadır. Bu sebeple, bu çalışma araştırma makalelerinin tarafsızlık açısından tanımlandıkları gibi olup olmadıklarını sorgular. Ayrıca, sosyal bilimler ve doğal bilimler arasında tutum belirleyici ve kendini anma kullanımları bakımından bir fark bulunup bulunmadığını araştırır. Türkçe özlerin özellikle kendini anma kullanımından kaçınarak tarafsız duruşunu koruduğu bulunmuştur. Fakat sosyal bilimlerin bu bağlamda daha esnek bir yaklaşım gösterip, doğal bilimlere oranla daha fazla tutum belirleyicisi ve kendini anma kullandığı da keşfedilmiştir.

Anahtar Kelimeler: Tutum Belirleyicileri, Kendini Anma, Etkileşimsel Boyutlu Üstsöylem Belirleyicileri, Tür Çözümlemesi, Türkçe

1. Introduction

The aim of this study is to introduce the interactional metadiscoursal features of research article abstracts (hereafter RA abstracts) and search for the difference between social and natural sciences regarding how they stand in terms of objectivity in RA abstracts. Metadiscourse markers are helpers of the writers to make the text more coherent, comprehensible and reader friendly or they also provide a way to reach the readers of the texts. To this purpose, Hyland (2005) divides metadiscourse markers into two: interactional and interactive metadiscourse markers. This study deals with the two interactional metadiscourse markers, namely attitude markers and self-mentions. These two metadiscourse markers are used when the writer wants to show his/her identity or ideas more in the text. Since research article and research article abstracts are known as objective type of texts, these two markers are not expected to be encountered very often. However, there is still the expectation that social and natural science abstracts will show a difference regarding the use of self-mentions and attitude markers. Because natural sciences deal with more concrete data, they are generally written without including the writer into the text. However, in social sciences voice of the writer is more important and it is emphasized more often. Abdi (2002) also

conducts a study which compares metadiscoursal features in natural sciences and social sciences. He searches for the hedges, emphatics, and attitude markers in the articles from two disciplines. His findings show that two disciplines significantly differ in the use of attitude markers. Same is expected for the self-mentions in this study.

Based on these assumptions above, there are two questions which the researcher tries to answer:

1. Different than what is defined in the literature, are attitude markers and self-mentions encountered frequently in the RA abstracts?

2. Does social sciences and natural sciences behave differently in terms of the use of attitude markers and self-mention?

1.1. What is Metadiscourse?

According to Hyland (2005, p. 1), "metadiscourse is a widely used term in current discourse analysis and language education, referring to an interesting, and relatively new approach to conceptualizing interactions between text producers and their texts and between text producers and users." but he thinks this definition is not clear enough. Therefore, he gives another definition of metadiscorse: "Metadiscourse is the cover term for the self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community." (Hyland, 2005, p. 37).

The term metadiscourse was first proposed by Zellig Harris in 1959, then it was developed by some writers such as Williams (1981), Kopple (1985) and Crismore (1989, as cited in Hyland, 2005). Metadiscourse markers were conventionally divided into two: textual and interpersonal. These two categories had seven discourse markers according to Vande Kopple (1985, as cited in Hyland 2005). The first term helps in the organization of the text and the second modifies and emphasizes aspects of the text and shows the writer's attitude about something with the help of hedges, boosters, self-reference and features like evaluation and appraisal (Hyland &Tse, 2004).

Metadiscourse markers are used to make the text more reader friendly and persuasive. Another function of the metadiscourse markers is that they help the writer to reach to the reader. There are researchers who divide metadiscourse markers into two as interactional and interactive. Hyland & Tse take this categorization of discourse markers and they broaden it (2004).

Before going into the details of the categorization, it should be noted that they also emphasize three key principles of metadiscourse. These are:

1. that metadiscourse is distinct from prepositional aspects of discourse;

2. that metadiscourse refers to aspects of the text that embody writer—reader interactions;

3. that metadiscourse refers only to relations which are internal to the discourse.

(Hyland & Tse, 2004, p. 159)

According to Thomson (2001, as cited in Hyland & Tse, 2004), interactive markers help the writer guide the reader through the text by the management of the information flow and interactional markers are related to the writer's comments and evaluations of the materials in the text.

Interactive metadiscourse markers deal with the organization of the text and they reflect what the writer wants to transfer with the specific discourse. For this purpose, there are five metadiscourse markers: transitions, frame markers, endophoric markers, evidentials and code glosses. Transitions are generally the conjunctions which can mark addition, contrast or consequence in the discourse. Frame markers are used to sequence the items, label stages, announce discourse goals or indicate topic shift. Endophoric markers are the references to the other parts of the text so that readers can recover writer's intentions with the help of the additional material. Evidentials have the similar function, but they refer to a resource outside of the text. Lastly, code glosses are the helpers to restate some idea or information.

Interactional metadiscourse markers involve the readers and show the writer's point of view to them. They are mainly evaluative and engaging, influencing the degree of intimacy, the expression of attitude, epistemic judgements, commitments, and the degree of reader involvement. These markers are called hedges, boosters, attitude markers, engagement markers and self-mentions. Hedges give the meaning of uncertainty and unwillingness of the writer to present propositional information. On the contrary,

boosters show the writer's certainty and the emphasis on the subject. Attitude markers are used to express the writer's point of view on the subject, and they can express surprise, obligation, agreement, importance and so on. Engagement markers can be second person pronouns, imperatives, question forms and they work as a tool to engage the reader to the text. Lastly, self-mentions can be realized as the first-person pronouns or possessives to reflect the degree of writer's presence.

Table1. A model of metadiscourse in academic texts

Category	Function	Examples
Interactive resources	Help to guide reader through the text	
Transitions	express semantic relation between main clauses	in addition/but/thus/and
Frame markers	refer to discourse acts, sequences, or text stages	finally/to conclude/my purpose here is to
Endophoric markers	refer to information in other parts of the text	noted above/see Fig/in section 2
Evidentials	refer to sources of information from other texts	according to X(Y, 1990)/Z states
Code glosses	help readers grasp functions of ideational material	namely/e.g./such as/in other words
Interactional resources	Involve the reader in the argument	
Hedges	withhold writer's full commitment to proposition	might/perhaps/possible/about
Boosters	emphasize force or writer's certainty in proposition	in fact/definitely/it is clear that
Attitude markers	express writer's attitude to proposition	unfortunately/I agree/surprisingly
Engagement markers	explicitly refer to or build relationship with reader	consider/note that/you can see that
Self mentions	explicit reference to author(s)	I/we/my/our

Source: Hyland & Tse, 2004.

Both attitude markers and self-mentions are tools to include the writer into the text and this study examines these two categories in the RA abstracts. Thus, attitude markers and self-mentions will be introduced in detail in the following sections.

1.1.1. Attitude Markers and Their Use in Turkish

Attitude markers are the indications of the writer's affective attitudes to the propositions. They state surprise, agreement, importance, obligations, disappointment of the author on the relevance, reliability, or truth. They can be expressed by the employment of subordination, comparative structures, progressive participles, punctuation, and text location. Attitude verbs like agree, prefer, sentence adverbs such as unfortunately or hopefully, adjectives like appropriate, logical, remarkable are some expressions of attitude markers (Hyland, 2005).

Some attitude markers in Turkish are 'beklendiği gibi (as expected), maalesef (unfortunately), elbette (of course), bilhassa (especially), anlaşılır (understandable), şaşırtıcı (surprising), önemli (important), oldukça (pretty), ilginç (interesting), yararlı ol- (to be useful), faydalı ol- (to be useful), dikkat çek- (to take attention), dikkate değer (worth attention). An example from a thesis is provided in Tarcan's study (2019).

1. Gelecekte yapılacak araştırmalarda tesadüf olarak belirlenen daha geniş bir örneklem grubu üzerinde çalışılması, tüm aracının geçerlilik ve güvenilirliği bakımından faydalı olacaktır.
'Studying on a randomly chosen broader sample in the future studies would be useful in terms of the validity and reliability of the measuring tool.'

(Tarcan, 2019, p. 87)

In the example above, the writer is trying to guide the reader into a point where he/she believes to be true. The verb faydalı ol- (to be useful) is employed to reflect the attitude of the writer. He/she is explicitly stating what will be useful in future hoping to influence the reader. The purposes similar to this one are accomplished through attitude markers.

1.1.2. Self-Mentions and Their Use in Turkish

Self-mention shows the degree of explicit writer presence in the text. Although all texts give information on the writer these markers can be stated as the most powerful way of including the writer into the text. These markers are calculated by the frequency of the first-person pronouns and possessives such as I, mine, me, exclusive we, our, ours and so on. The use of self-mentions is generally a self-conscious process to show a particular stance and contextual identity of the author (Hyland, 2005).

Self-mentions in Turkish are realized as 'ben (I), biz (we), benim (my, mine), bizim (our, ours), kendim/kendimiz (myself/ourselves) or the morphemes that give the meaning of first person singular or plural (-im/-ım, -mız/-miz, -uz/-üz, -ik/-ık)'. An example to self-mentions is provided in Tarcan's study from a thesis (2019).

2. Tanzimat ise bu durumun ilim ve teknik alanında da geçerli olduğunu göstermiştir. Bizim için burada Ahmet Cevdet Paşa'nın duruşu önemlidir.

'Reforms show that this situation is also valid in the scientific and technical areas. The stance of Ahmet Cevdet Pasha is important here for us.'

(Tarcan 2019, p. 91)

The example above shows to the reader that who the writer is and where he/she stands in his/her work. By doing this, the writers try to communicate with the reader and increase the reliability of his/her work by establishing a relationship (Tarcan, 2019).

1.2. Scientific Article Abstracts (RA Abstracts) As a Genre

RA abstracts are accepted as a well-established genre in academic discourse thanks to Ventola's plea (1994, as cite in Gillaerts &Velde, 2010) about a linguistic approach to blend a universal structural view of the genre with an accepted local view of the linguistic realization of the abstracts. Scholars are still arguing about whether it is a condensed copy of the research itself or an enlarged version of the title. On the other hand, they mostly agree upon that it is a separate genre.

According to American National Standards Institute's (ANSI) the definition of an abstract is "an abbreviated, accurate representation of the contents of a document, preferably prepared by its author(s) for publication with it." (1979, p. 1). Huckin states four functions of the abstracts (2006, as cited in Khedri, Heng & Ebrahimi, 2013): 'Stand-alone mini texts', 'Screening devices', 'Previews' and 'Aids to indexing'. The first function provides the reader with a summary of the topic, methodology and the results. The second function helps the reader to decide whether they want to read the whole text by looking at the main information provided in the abstracts. By the third function an interpretive scheme which leads the reading process is constructed. The last one emphasizes that abstracts help indexing for large database services to promote information access.

Abstracts are mostly compulsory in many of the journals. In fact, in some international journals, the articles written in another language obligatorily have an English abstract too. It is stated that genres emerge because of some needs of the recurring rhetorical situations which should be adequately answered. Abstracts are a type of these responses; they have emerged because of social requirements. That is why it is not enough to define abstracts in terms of syntax and lexis because they have interactional functions (Gillaerts & Velde, 2010).

RA abstracts are generally analyzed to determine their move structures. However, the language of the abstracts has not been studied frequently. One feature of abstracts is that they are written objectively. Also, they are tightly worded and avoid repetition, meaningless expressions, superlatives, adjectives and so on (Graetz, 1985, as cited in Gillaerts & Velde, 2010). Another feature is that they are mostly dominated by nominalizations and passive voice. Although these are generally stated as the features of abstracts, there are some scholars such as Bazerman (1984), Hyland (2005) and Biber (2006) who defend that academic writing is associated with subjectivity on a large scale (Gillaerts & Velde, 2010).

There are many studies which analyze RA or thesis abstracts in terms of metadiscourse markers such as Khedri, Heng & Ebrahimi (2013), Gillaerts & Velde (2010), Ozdemir & Longo (2014), Hu & Cao (2011), Alotaibi (2015) and so on. However, Turkish RA abstracts have not taken very much attention in regard to metadiscourse markers so far. The researcher aims at defining the interactional metadiscoursal features of Turkish RA abstracts clearly. That is why this article is an important contribution to the literature on metadiscourse markers. Also, this study examines research articles from two different disciplines to decide in which discipline writers take a more subjective stance in their abstracts. Two metadiscourse markers, namely attitude markers and self-mentions, are the tools to evaluate the subjectivity of the abstract since they are employed mainly to indicate the writer's explicit point of view.

Also, the comparison of two disciplines provides information on whether subjectivity changes depending on the topic of the research.

2. Material and Methods

As mentioned before, scientific article abstract is a type of genre which is supposed to be objective and formal. Based on this assumption, it is expected from the researchers to have an objective stance and not to reveal their own ideational propositions explicitly. Also, they are not supposed to emphasize themselves in the discourse very often. This situation leads to an article abstract without many self-mentions or attitude markers. That is why this study examines one discipline from social sciences and another from natural sciences to compare which discipline allows for stating the writer's point of view more.

Twelve sociology article abstracts from the social sciences and twelve from mechanical engineering RA abstracts from the natural sciences are examined in terms of self-mentions and attitude marker. The articles are taken from three consecutive years 2017, 2018 and 2019. Sociology RA abstracts are taken from the journal of İstanbul Üniversitesi Sosyoloji Dergisi and mechanical engineering RA abstracts are from the journal of Mühendis ve Makina. Sociology journal is published twice a year so first two articles with native Turkish writer from every issue in the last three years are included in the sample. The journal of Mühendis ve Makina is published four times in a year so every first article with native Turkish writer from the journals between the years of 2017-2019 is taken in the sample. These two journals are chosen because they are one of the most credible and known journals in their area in Turkey. As mentioned all the issues between years of 2017-2019 are included in the sample. Also, the writers of the RA abstracts are all native Turkish speakers.

Since metadiscourse markers are syntactically heterogeneous they may contain words like 'however or still' and phrases such as 'in fact', or clauses such as 'to make myself clear' (Estaji&Vafaeimehr, 2015). Also, in one situation a word can mean a type of metadiscourse marker but in another it may carry a different kind of metadiscoursal meaning. This is why the data is collected manually by searching the abstracts word by word instead of deciding on some specific metadiscourse markers and using a computer-based searching device to find them. In this way, it is possible to find other Turkish metadiscourse markers that are not stated in the Turkish linguistic literature on metadiscourse markers before.

For the reliability of the results, another rater who is educated in the linguistics field evaluated the same abstracts for the mentioned metadiscourse markers. Kappa statistics is used as the interrater reliability test. It is found that the degree of reliability between the two raters is 0.85 (p<.001) and this score indicates that there is strong agreement between the raters according to McHugh (2012).

While analyzing the data, log-likelihood test is employed. This test is preferred because it is used to compare the frequencies of two variables and decide how significant is the difference between them. The test is applied with the help of an online calculating machine (available at http://ucrel.lancs.ac.uk/llwizard.html). Because the word counts are different in two samples from social sciences and natural sciences, they are normalized to 10.000 words to be able to compare two samples.

3. Results

In this part the results of the overall mean frequencies per 10.000 words and log-likelihood results in regarding to the use of attitude markers and self-mentions in the social sciences RA abstracts and natural sciences RA abstracts are given.

Table 1 shows the overall mean frequency (per 10.000) distributions of attitude markers (hereafter AM) and self-mentions (hereafter SM) in social sciences RA abstracts and in natural sciences RA abstracts as well as Log-Likelihood (LL) results. In social sciences, there are 2418 words in twelve articles and 95 AMs and SMs are encountered. On the other hand, in natural sciences, there are 1332 words in twelve articles and 29 AMs and SMs are encountered.

Table 2. Overall mean frequency (per 10.000) and Log-Likelihood results of total AMs and SMs in Social Sciences and Natural Sciences RA abstracts

Category	AM+SM Frequency In Social Sciences RA abstracts	Occurrence (per 10.000)	AM+SM Frequency in Natural Sciences RA abstracts	Occurrence (per 10.000)	LL Ratio
Attitude Markers + Self-mentions	95	3,93	29	2,18	+8,52

+ indicates overuse in social sciences RA abstracts relative to natural sciences RA abstracts
- indicates underuse in social sciences RA abstracts relative to natural sciences RA abstracts

To decide on whether the use of AMs and SMs together significantly differ in social sciences and natural sciences RA abstracts, log-likelihood test is applied. The frequency of AMs and SMs in social sciences RA abstracts per 10.000 words (3,93) significantly differ from the frequency of AMs and SMs in natural sciences RA abstracts per 10.000 words (2,18). LL Ratio is +8,52, which means that AMs and SMs are very significantly overused in social sciences RA abstracts relative to natural sciences RA abstracts.

Table 2 shows the overall mean frequency (per 10.000) distributions of AMs in social sciences RA abstracts and in natural sciences RA abstracts as well as Log-Likelihood (LL) results. In social sciences, there are 2418 words in twelve articles and 87 AMs are encountered. On the other hand, in natural sciences, there are 1332 words in twelve articles and 29 AMs are encountered.

Table 3. Overall mean frequency (per 10.000) and Log-Likelihood results of total AMs in Social Sciences and Natural Sciences RA abstracts

Category	AM Frequency In Social Sciences RA abstracts	Occurrence (per 10.000)	AM Frequency In Natural Sciences RA abstracts	Occurrence (per 10.000)	LL Ratio
Attitude Markers	87	3,60	29	2,18	+5,93

+ indicates overuse in social sciences RA abstracts relative to natural sciences RA abstracts
- indicates underuse in social sciences RA abstracts relative to natural sciences RA abstracts

The researcher run a log-likelihood test to analyze the significance of the difference between social sciences RA abstracts and natural sciences RA abstracts in regard to the use of AMs. The frequency of AMs per 10.000 words in social sciences RA abstracts (3,60) and natural sciences RA abstracts (2,18) significantly differ from each other. Also, LL Ratio is +5,93 which indicates that AMs are frequently used in social sciences RA abstracts rather than natural sciences RA abstracts.

Table 3 states the overall mean frequency (per 10.000) distributions of SMs in social sciences RA abstracts and in natural sciences RA abstracts as well as Log-Likelihood (LL) results. In social sciences, there are 2418 words in twelve articles and 8 AMs are encountered. On the other hand, in natural sciences, there are 1332 words in twelve articles and there is no AM encountered in the sample.

Table 4. Overall mean frequency (per 10.000) and Log-Likelihood results of total SMs in Social Sciences and Natural Sciences RA abstracts

Category	SM Frequency In Social Sciences RA abstracts	Occurrence (per 10.000)	SM Frequency In Natural Sciences RA abstracts	Occurrence (per 10.000)	LL Ratio
Self Mentions	8	0,33	0	0,00	+25,45

+ indicates overuse in social sciences RA abstracts relative to natural sciences RA abstracts

- indicates underuse in social sciences RA abstracts relative to natural sciences RA abstracts

To decide on whether the use of SMs significantly differ in social sciences and natural sciences RA abstracts, log-likelihood test is applied. It is observed that while the frequency of SMs per 10.000 words in social sciences RA abstracts is 0,33, there is no SM found in the natural sciences RA abstracts. LL Ratio is + 25,45 so it is possible to state that use of SMs in two different genres differ very significantly.

To sum up, log-likelihood analyses on the use of AMs and SMs in social and natural Sciences RA abstracts clearly indicates that these two markers used much more in social sciences rather than natural sciences.

4. Discussion and Conclusion

This part of the study covers the discussion of the results related to the attitude marker and self-mention frequencies in the social sciences and natural sciences RA abstract. Also, answers to the research questions are given in this section.

It is accepted that metadiscourse markers are frequently employed in academic writing because they are helpful for the readers when they are trying to connect the information provided in different parts of the text. Metadiscourse markers are cognitive tools which makes a text more understandable and connected and these are some of the features which make the readers to keep reading that specific piece of work. It is also mentioned by Hyland (2010) that in academic writings, the researchers do not only present an external fact but they also try to represent themselves and their work as credible with the help of the language and they also aim at accomplishing a social relationship with their readers. These purposes in academic writing are mostly achieved by the metadiscourse markers. That is why even if academic genre is defined as an objective type of writing, some interactional markers are still employed in these texts by the writers so that they can create a bond with their readers.

As mentioned, metadiscourse markers in general are used in academic genre often but some interactional markers are not as commonly encountered as other metadiscourse markers to keep the text in the boundaries of objectivity. Two of these markers are called attitude markers and self-mentions. It was expected that fields in natural sciences would be more conservative regarding the use of these markers compared to other fields in social sciences. When attitude markers and self-mentions are compared together in the two genres of abstracts, we can see that the number of interactional attitude markers are much higher in social sciences compared to natural sciences. This might be related to the fact that natural sciences generally deal with the concrete data so there is not much need for the writer to put his/her comments into the study. There are other studies which support the results in this study. For example, in Dahl's study (2004) metatexts are examined in three disciplines, namely economics, linguistics and medicine. While medicine articles are written in a more objective manner, in linguistics and economics articles, writer takes a more subjective stance and she thinks it is because of the same reasons stated above.

Furthermore, regarding the use of attitude markers in two genres of RA abstracts, the number is again higher in social sciences (87) than natural sciences (29). It is established that attitude markers reflect the writer's affective attitude towards the information provided and show writer's stance in the text to the reader (Hyland, 1998). In sociology article abstracts, there is information that can be agreed upon or disagreed with such as values, traditions in a society and so on. However, in mechanical engineering abstracts, the information provided generally includes facts based on some experiments and the only way to comment on it is to state whether it is found useful or not as exemplified in the following examples.

3. Müzik, yapısı gereği sözcükleri değil sesleri kullanır; bu onu, toplumlar/kültürler arasında birleştirici rol oynamak konusunda benzersiz kılar.
'Music uses sounds rather than words by its nature; this makes it unique in terms of taking a unifying role between societies/cultures.'

Sociology RA Abstract from 2017

4. Bu yüzden, uçak bakımında kablo incelemeleri önemlidir.
'That is why in maintenance of the planes examination of the cables is important.'

Mechanical Engineering RA Abstract from 2019

As mentioned earlier, Abdi's study (2002) agrees with the results of the study since he also states that in social sciences attitude markers are used more frequently.

When we look at the self-mentions in two genres, a surprising result appears. There is no self-mention used in natural sciences and there are only eight markers used in social sciences. Rare use of self-mentions is an expected result, but it is also expected that there would also be some used in natural sciences too. By nature of RA and RA abstracts, they are considered objective so the writer generally isolates his/her identity from the work so that he/she can provide that objectivity. For this purpose, passive voice is generally preferred instead of first-person pronouns in RA abstracts. However, recently in some countries, RAs and RA abstracts are turning into a more writer directed, and researchers started to take a stance in their studies. This brings more use of pronouns in RAs in countries like USA. On the other hand, it can be said that Turkish researchers are still following the old tradition and feel like putting their identity behind their work is better while writing an article. This might be related to either providing an objective tone or avoiding the responsibility of any mistake that might exist in the article. Whatever the reason is, it is possible to state that self-mentions are generally not preferred in RA abstracts especially in natural sciences.

The results in this study are important since they provide a description of interactional metadiscourse marker use in Turkish RA abstracts, which is not studied often in Turkish. However, future studies should be conducted with a sample which includes more abstracts or other areas than sociology and mechanical engineering.

There are two research questions asked in this study. The first is 'Different than what is defined in the literature, are attitude markers and self-mentions encountered frequently in the RA abstracts?'. The answer to this question changes according to the marker and the genre. Attitude markers are encountered more than self-mentions but both of the interactional markers are encountered generally in social sciences. This statement also provides an answer to the second research question which is 'Does social sciences and natural sciences behave differently in terms of the use of attitude markers and self-mention?'. There is a clear difference between social and natural sciences RA abstracts in terms of metadiscourse marker use. The researchers in social sciences prefer more attitude markers and self-mentions compared to the ones in natural sciences.

In conclusion, this study focuses on attitude markers and self-mentions in two different type of RA abstracts: social sciences and natural sciences. Both attitude markers and self-mentions are used more frequently in social sciences. This might be related to the fact that social sciences allow writer's point of view in the text but natural sciences do not have much place for the writer's own opinions. Also, natural sciences might be called more objective compared to social sciences.

References

Abdi, R. (2002). Interpersonal metadiscourse: an indicator of interaction and identity. *Discourse Studies, 4*(2), 139–145. doi: 10.1177/14614456020040020101

Alotaibi, H. (2015). Metadiscourse in Arabic and English Research Article Abstracts. *World Journal of English Language, 5*(2). doi: 10.5430/wjel.v5n2p1

American National Standards Institude (ANSI) (1979). *The American National Standard for Writing Abstracts.* New York: ANSI Punlications.

Dağ Tarcan, Ö. (2019). *Sosyal Bilimler Alanında Yazılan Türkçe Bilimsel Metinlerde Kullanılan Üstsöylem Belirleyicileri* (dissertation).

Dahl, T. (2004). Textual metadiscourse in research articles: a marker of national culture or of academic discipline? *Journal of Pragmatics, 36*(10), 1807–1825. doi: 10.1016/j.pragma.2004.05.004

Gillaerts, P., & Velde, F. V. D. (2010). Interactional metadiscourse in research article abstracts. *Journal of English for Academic Purposes, 9*(2), 128–139. doi: 10.1016/j.jeap.2010.02.004

Hu, G., & Cao, F. (2011). Hedging and boosting in abstracts of applied linguistics articles: A comparative study of English- and Chinese-medium journals. *Journal of Pragmatics, 43*(11), 2795–2809. doi: 10.1016/j.pragma.2011.04.007

Hyland, K. (2010). Metadiscourse: Mapping interactions in academic writing. *Nordic Journal of English Studies*, *9*(2), 125-143.

Hyland, K. (2005). *Metadiscourse: Exploring interaction in writing* (1st ed.). New York: Continuum.

Hyland, K. (1998). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics, 30*(4), 437–455. doi: 10.1016/s0378-2166(98)00009-5

Hyland, K., & Tse, P. (2004). Metadiscourse in academic writing: A reappraisal. *Applied Linguistics, 25*(2), 156-177. http://dx.doi.org/10.1093/applin/25.2.156

Khedri, M., Heng, C. S., & Ebrahimi, S. F. (2013). An exploration of interactive metadiscourse markers in academic research article abstracts in two disciplines. *Discourse Studies, 15*(3), 319– 331. doi: 10.1177/1461445613480588

McHugh, M. L. (2012). Interrater reliability: the kappa statistic. *Biochemia medica*, *22*(3), 276-282.

Ozdemir, N. O., & Longo, B. (2014). Metadiscourse Use in Thesis Abstracts: A Cross-cultural Study. *Procedia - Social and Behavioral Sciences, 141,* 59–63. doi: 10.1016/j.sbspro.2014.05.011