

Research Type: Research Article  
Received: 28.05.2022  
Accepted: 07.10.2022

## AN ANALYSIS OF “STANCE DEVICES” IN SOCIAL SCIENCE RESEARCH ARTICLES BY NATIVE AND TURKISH WRITERS<sup>1</sup>

Gonca SUBAŞI<sup>2</sup>

Seda ÜNER<sup>3</sup>

### Abstract

It is a well-known fact that research articles cannot be considered as an objective description of an investigation; in fact, they should be persuasive because the writers are required to change the minds of other members in the scientific field. Thus, academic writers use stance devices to be able to build a persuasive argument, to reflect ideational content and to form authorial self, specifically while writing effective abstracts. Therefore, the present study showed an attempt to shed some light on stance device employment by examining stance devices defined in Hyland’s (2005) framework. The data used for this study were 60 research articles published in *Social Behavior and Personality*, a peer-reviewed international journal. Of these, 30 were published by English-speaking academic writers (NW), while 30 were published by non-native English-speaking academic writers (Turkish academic writers, NNW). The texts were converted to an electronic corpus of 7196 words and searched for the stance devices in the 60 articles of the study by the corpus analysis tool AntConc (Anthony, 2011) by using the move model suggested by Swales (1990). The findings of the study revealed that there were both differences and similarities between the use of stance devices by native and non-native English-speaking academic writers. The outcomes also showed that writer stance seemed to be closely related with the discourse community, text types of that community, the global and local features, cultural/educational background of the writer, English language proficiency level of the writer, and the writer’s personality and/or style.

**Keywords:** stance devices, abstracts, social science research articles, native and Turkish academic writers

---

<sup>1</sup> This article is an extended version of the paper presented at the 13-14 May 2022 International Eurasian Social Sciences and Art symposium

<sup>2</sup> Assist. Prof. Dr., ELT Department, Anadolu University, [goncas@anadolu.edu.tr](mailto:goncas@anadolu.edu.tr), ORCID ID: 0000-0001-7049-5940

<sup>3</sup> Instructor, School of Foreign Languages, Osman Gazi University, [sedauner.2@gmail.com](mailto:sedauner.2@gmail.com), ORCID ID: 0000-0002-5991-745X

Makale Türü: Araştırma Makalesi  
Başvuru: 28.05.2022  
Kabul: 07.10.2022

## SOSYAL BİLİMLER MAKALELERİNDE YERLİ VE TÜRK YAZARLAR TARAFINDAN KULLANILAN TUTUM YAPILARININ ANALİZİ<sup>1</sup>

Gonca SUBAŞI<sup>2</sup>

Seda ÜNER<sup>3</sup>

### Özet

Araştırma makalelerinin bir incelemenin sadece nesnel bir açıklaması olarak kabul edilemeyeceği, aslında ikna edici olması gerektiği bilinen bir gerçektir çünkü yazarların bilim camiasının diğer üyelerini ikna etmeleri gerekmektedir. Bu nedenle, akademik yazarların, özellikle etkili özetler yazarken, inandırıcı bir argüman oluşturabilmek, düşünsel içeriği iletebilmek ve yazar benliğini inşa edebilmek için tutum yapılarını kullanmaları gerekir. Bu nedenle, bu çalışma Hyland'ın (2005) taksonomisinde tanımlanan tutum yapılarını inceleyerek sözkonusu yapıların kullanımına biraz da olsa ışık tutmayı amaçlamıştır. Bu çalışmanın verileri, uluslararası hakemli bir dergi olan Social Behavior and Personality dergisindeki 60 araştırma makalesidir. Verileri ana dili İngilizce olan akademik yazarlar (NW) tarafından yayınlanan 30 makale ve ana dili İngilizce olmayan akademik yazarlar (Türk akademik yazarlar, NNW) tarafından yayınlanan 30 makale oluşturmuştur. Metinler, 7196 kelimelik elektronik bir derleme dönüştürülmüş ve Swales (1990) tarafından önerilen bir model kullanılarak, derlem analiz aracı AntConc (Anthony, 2011) ile 60 makaledeki tutum yapıları aranmıştır. Çalışmanın bulguları, ana dili İngilizce olan ve ana dili İngilizce olmayan akademik yazarlar tarafından tutum yapılarının kullanımı arasında hem farklılıklar hem de benzerlikler olduğunu ortaya koymuştur. Sonuçlar, ayrıca yazarların bu yapıları ait oldukları söylem topluluğunun özellikleri, kullanılan metin tipleri, kendilerinin kültürel ve eğitim geçmişleri, İngilizce dil yeterlilikleri, kişilikleri ve stilleri ile yakından bağlantılı olduğunu göstermiştir.

**Anahtar Kelimeler:** tutum yapıları, özetler, sosyal bilimler araştırma makaleleri, yerli ve Türk akademik yazarlar

<sup>1</sup> Bu makale 13-14 Mayıs 2022 Uluslararası Avrasya Sosyal Bilimler ve Sanat Sempozyumunda sunulan bildirinin genişletilmiş halidir

<sup>2</sup> Doktor Öğretim Üyesi, Anadolu Üniversitesi, Yabancı Dil Okulu, goncas@anadolu.edu.tr, ORCID ID: 0000-0001-7049-5940

<sup>3</sup> Öğretim Görevlisi, Osman Gazi Üniversitesi, Yabancı Dil Okulu, sedauner.2@gmail.com, ORCID ID: 0000-0002-5991-745X

## 1. INTRODUCTION

For a long period of time, academic writing is not viewed as an impersonal or faceless entity. It is claimed that research articles cannot be considered as an objective description of an investigation, indeed, they are persuasive because the writer is expected to change the viewpoints of the other members of the scientific community (Çakır, 2016; Hyland, 2004; Rezzano, 2004; Samraj, 2002; Stotesbury, 2003). As Hyland (2005) pointed out the writers want to represent themselves credibly by evaluating their material; therefore, to build a convincing argument, checking out the level of personality in a text becomes the main concern. He also drew attention to the presence of great amount of research with the aim to have a successful communication with their audience while sustaining the integrity of the data.

To ensure the academic writers use of stance devices to convey ideational content and to form authorial self, the necessity of stance device utilization in academic writing can be observed clearly. Stance device use in academic writing is very crucial due to the fact that it enables the academic writer to express their personal authoritative figure and disguise their involvement (Ağçam, 2015b; Hyland, 2005).

Graetz (1985) highlighted the significance of the use of stance devices in journal abstracts which make contribution to the comprehension of a research paper. These devices provide golden principles to readers and help authors to communicate about their ideas in a more effective way. As the abstract is the first part of a research paper, to hook the attention of readers, authors display that they have something worthwhile to state in these texts so that the readers will read the entire text. As Hyland (2000) pointed out the abstract provides a sound basis for both what the main claims of the paper are and why they play a pivotal role within the paper. According to Gillaerts and Velde (2010), there is a general understanding that the abstract is unique as a genre and, by nature, a social one. Research article abstract is defined as a case of communication among human-beings, participating in a social and institutional academic context. Therefore, the interpersonal feature of the research article abstract seems apparent (Çakır, 2016).

A few studies have focused on stance devices in research article abstracts; however, there is not a comparative study focusing on the utilization of stance devices in different moves in the abstracts of research articles written by native and non-native English-speaking researchers. It is presumed that writer stance displayed by native and non-native English-speaking academic writers may yield outstanding differences because the universal rhetorical aspects of scientific exposition, shaped according to a specific organizational pattern, permit tolerance for individual stylistic change (Widdowson, 1979). Hence, this study shows an attempt to explore stance device employment via Hyland's (2005) framework. In other words, the main aim of the present study is to figure out mainly any similarities and/or differences in the expression of stance using modal verbs by native and non-native English-speaking academic writers. Another purpose of the current study is to examine the link between modal verb use and arrangement of the moves and sub-moves used in the research articles. Two research questions were posed to guide the present study:

1) How do native and non-native English-speaking academic writers differ from each other in terms of stance device employment?

2) What are the preferences of the native and non-native English-speaking academic writers about the use of stance devices based on the various moves in the research article abstracts?

## 2. REVIEW OF LITERATURE

### 2.1. Stance and Hyland's Framework for Stance Devices

Hyland (2005) simply defined the term stance as the writer-based features of communication and the ways that researchers explicate their articles to provide comments on the possible accuracy or trustworthiness of a remark, the level they want to participate in it, or the behaviour they want to transfer to an entity, a proposition, or the reader. Biber and Finegan (1988) list the various reasons to use stance devices such as to interact propositional topic, to express emotional state, perspectives, values, judgments, or evaluations and they can be conveyed by means of paralinguistic, non-linguistic, and linguistic devices. In the spoken discourse, paralinguistic devices are utilized especially in order to display emotional and behavioral stance meanings, covering pitch, stress, tone, and duration. Several grammatical function words (modal and semi-modal verbs), and content word such as, adjectives, nouns, and clauses are the commonly used as linguistic features for the clarification of stance in English (Khamkhien, 2014; Keck and Biber, 2004).

There are classifications of linguistic/ grammatical stance devices by Biber (2004), and Hunston and Thompson (2000) as adverbials of stance, stance complement clauses, modals, and semi-modals, and pre-modifying stance adverbs from a structural angle. Hyland (2005:178-181) made a classification of stance devices using on a corpus-based study of 240 published research studies collected from eight areas. This classification is comprised of four elements (see Figure 1):

1. *Hedges*: They are devices like *possible*, *might* and *perhaps*. They represent information to be given in the form of an opinion rather than a fact or scientific truth.
2. *Boosters*: They are words like *clearly*, *obviously* and *demonstrate*. They are used to share information, form group harmony and membership, and foster interaction with readers. They can also enable authors to present their work with certainty.
3. *Attitude markers*: These words are the writer's emotional behavior to propositions, displaying anger, happiness, agreement, refutation, disappointment, and so on. Attitude is directly stated by attitude verbs (*e.g. agree*), sentence adverbs (*unfortunately*), and adjectives (*appropriate*).
4. *Self-mention*: It accounts for referring to the first-person pronouns and possessive adjectives to give affective and interpersonal information.

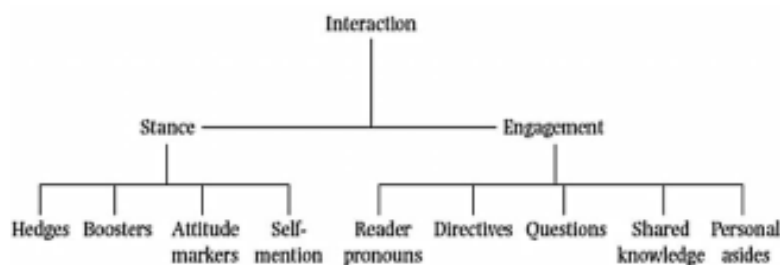


Figure 1: Key sources of academic interaction (Bahrami et al., 2018: 73)

## 2.2. Studies on Stance Devices in Research Articles

The view that academic writing involves interaction between writers and readers caused more researchers to give importance to evaluation and its realization in academic texts (Hyland, 2005, Kafes, 2018; Zhang and Zhang, 2021). In line with this growing, a great number of studies conducted on this topic. Stance devices have been investigated under labels including "epistemic modality in MA dissertation" and "Doctoral Students", Ağçam, 2015 a; Chang and Schleppegrell, 2016; Chen, 2012; Gabrielatos and McEnery, 2005; Getkham, 2016; "metadiscourse" Hyland, 2004; "hedging" Crismore and Kopple, 1997; Crosthwaite and Jiang, 2017; Hunston and Thompson, 2000; Hyland, 2000; Lewin, 2005; Min et al. 2019; Salager-Meyer, 1992, 1998; "indirectness" Hinkel, 1997; "modality" Dedaic, 2004; Keck and Biber, 2004; Mofian et al., 2014; Rezzano, 2004.

Biber (1988) conducted a study to examine the use of semantic stance devices considering four registers- namely conversation, fiction, news, and academic and he pointed out that compared to the other types in conversation, style adverbials are more commonly used and epistemic stance adverbials are much more commonly utilized in these mentioned contexts. Later on, Biber (2004) designed another research study to investigate the historical shift in the selected devices to mark stance and he found that despite the fact that the use of stance complement clause constructions, stance adverbials, and semi- modals increased, modal verbs decreased. The outcomes indicated that writers use stance adverbials frequently in their academic writing, which in turn, brings a controversial issue about the view that academic writing is impersonal.

In addition to the aforementioned studies, there were other studies conducted to investigate stance, to illustrate, markers of stance (Biber and Finegan 1988; Conrad and Biber, 2000), use of stance by amateur and professional writers (Barton, 1993), classification of stance features (Hyland, 1998), the relationship between stance-taking and academic writing skills (Crosthwaite and Jiang, 2017; Zhang and Zhang, 2021). In their study Henderson and Barr (2010) focused on the use of first-person pronouns, adjectives, and grading adverbs in the texts of students enrolled in psychology department and compared them with published research articles.

There are a few studies which compare the use of stance devices in research articles produced by native English-speaking and by non-native English-speaking writers. In a study, Martinez (2005) investigated the use of first person in a corpus of manuscripts on biology written by native English-speaking authors, and a corpus of research manuscripts written by

non-native English-speaking authors in order to compare the first-person placement and role in the various parts. The findings yielded that the existence of first-person pronouns in all four parts of the research articles for the native English-speaking corpus slightly higher compared to another study conducted by Hyland (2002) focusing on hard disciplines, namely science and engineering. In another study, Kafes (2009) aimed to clarify similarities and/or differences in the use of stance via modal verb use by native and non-native English-speaking academic authors. The outcomes also showed that both native and non-native authors were conscious of the functional roles of the rhetorical parts of the research papers. Consequently, it could be stated that writer stance is partly employed by the global discourse community of the research article and its peculiarities on one hand and the local discourse community of the author and its peculiarities on the other hand. Shirzadi et al. (2017) constructed a similar study to show how Iranian and American M.A. EFL writers differed regarding the use of stance strategies, namely attitude markers, hedges, boosters, and self-mentions, specifically in two parts of academic manuscripts, introduction, and discussion sections. They found that native writers preferred to use hedges, attitude markers, and self-mentions more than nonnatives, while nonnative authors tended to use boosters up to a greater extent.

Kafes (2018) designed another corpus-based study to investigate authorial stance in research papers used by native English speaker academic writers and non-native (Turks and Spaniards) scholars. The analysis of data revealed that there were both similarities and differences among the groups pinpointing the awareness of the authors regarding the conventions of their global and local discourse communities.

As for a recent study from Iranian context, Seyri and Rezaei (2021) examined two different sub-corpora consisting of Native English-Speaking and Non-Native English-Speaking (Iranian context) sub-corpus. Data consisted of 60 research manuscripts from soft disciplines such as Applied Linguistics, Sociology, and hard disciplines such as Chemical Engineering and Biology. The findings revealed that writers of various branches and from different cultural backgrounds conveyed changing levels of authorship and interaction in their articles. It was also acknowledged that the academic writers in soft sciences tended to use more stance and engagement markers rather than ones in hard sciences. The findings demonstrated that native researchers were prone to use interactional markers than non-native Iranian researchers.

### **2.3. Studies on Stance Devices in Research Article Abstracts**

According to Swales and Feak (2000), there has been a long and strengthening radiation of investigating the syntactic forms and rhetorical characteristics of research article abstracts stemming from Graetz's pioneering study published in 1985. Most of the previous studies on abstracts were about schematic structure of the abstract (e.g. Bonn and Swales, 2007; Hyland, 2004). There are a few studies which focused on linguistic features or moves in an abstract. For example, in the study conducted by Saleger-Meyer (1992) in different moves of the abstracts modality and verb tenses were investigated. In another study, the thematic structure of the rhetorical moves was investigated by Lores (2004). Pho (2008) examined the rhetorical moves found in the abstracts belonging to applied linguistics and educational technology in various abstract moves. This study showed that although abstracts are thought



not to be subjective and personal, in fact authorial stance exists in abstracts. However, the extent of the academic writer's intervention changes from one move to another move.

There are studies on research abstracts which focus on only one discipline. For example, in their study, Gillaerts and Velde (2010) analysed interactional meta discourse in research article abstracts using Hyland's (2005) classification of interactional meta discourse. The results of the study revealed that research articles and their abstracts yield varying use of subcategories of interactional meta discourse; that is to say, while research articles employ a lot of hedges compared to boosters and attitude markers, abstracts display much more harmony with boosting, rather than with hedging.

In a recent study, Alghazo et al. (2021) designed corpus-based research to explore grammatical devices and semantic distinctions utilized by researchers to use stance devices in research abstracts covering applied linguistics and literature fields. The outcomes of the study yielded that both applied linguistics and literature abstracts had common points since the most used stance marker was the stance complement clause. Nevertheless, these two fields differed in the frequency of use of other devices such as adverb phrases, adverbial clauses, single adverbs, hedges, prepositional phrases, and comment clauses.

Another group of studies focuses on disciplinary differences (e.g. Hyland (2000, 2003); Hyland and Tse (2005). Hyland (2000) studied 800 abstracts gathered from eight branches and published in 1997 and the results indicated that the rhetorical structure of abstracts changes significantly according to field. In another study, Hyland and Tse (2005) scrutinized authorial stance via 'evaluative that-construction' in the abstracts from different fields and showed once again that abstracts carry out specific rhetorical features.

As an eye-catching study from the Turkish context, Çakır (2016) conducted a research study to investigate native and non-native writers' use of stance adverbs in research article abstracts written in English. Specifically, the researcher explored how these writers from various scientific communities, namely sociology, psychology, linguistics, physics, chemistry and biology, form author's stance in the abstracts within the corpus design. The outcomes yielded that the native writers of English preferred to use more stance adverbs in their abstracts compared to Turkish authors. There were remarkable differences in the use of stance adverbs in soft and hard disciplines. Researchers from the soft disciplines used more stance adverbs in their abstracts.

There are also studies which compared the use of stance devices across different language backgrounds. Martin-Martin (2003) compared the rhetorical structure of research article abstracts written in English to be published in international scientific journals and the abstracts written in Spanish to be published in Spanish journals in the discipline of experimental sciences. This study showed that the rhetorical pattern of abstracts written in Spanish in the mentioned area exemplified the international conventions derived from the standards of the English academic discourse community. According to the author, various intellectual and mental stylistic choices and cultural issues, the impact of academic writing teaching, or political and historical issues were considered to be the socio-cultural factors causing the main differences.

In another study, Huo and Cao (2011) investigated the use of hedges and boosters in terms of cultural, language, and rhetorical impacts by designing a comparative study on abstracts accompanying empirical and descriptive academic articles published in journals of applied linguistics in two different countries, China and England. They concluded that differences could be stemmed from epistemological beliefs, culturally preferred genre strategies, lack of exposure of English as a foreign language, and the representative evidence to be used in various genres.

Aforementioned studies show that abstracts can provide an invaluable basis for exploring the cultural factors of linguistic and rhetorical distinctions across languages and that there is a gap in literature on comparative and contrastive study on the use of stance devices in research article abstracts by native and non-native English-speaking academic writers. Therefore, the current study was designed to explore stance device employment by examining stance devices categorized in Hyland's (2005) framework.

### 3. METHODOLOGY

#### 3.1 The Corpus

The data used for this study were 60 research articles published in *Social Behavior and Personality*, a peer-reviewed international journal. This journal was chosen due to its being well-established and its focus on a variety of issues such as psychological and educational sciences. 30 articles published by native English speaking academic writers (NW) and 30 articles by non-native English-speaking academic writers (Turkish academic writers, NNW) supply the data (see the abstract). The articles were published between 2010 and 2013. Some of the articles were written by one author, and others were produced by more than one author. In order to identify native and non-native writers, their online biographies were examined. It is worth noting that each article was written by a Turkish academic writer who held a university degree; being an assistant professor, an associate professor, or a professor. This criterion guarantees that these researchers could be claimed as proficient English language learners since they received a satisfying result from a standardized state-run English Language Proficiency exam (KPDS, UDS or YDS).

#### 3.2 Data Analysis

The texts were compiled and then converted to an electronic corpus of 7196 words and searched for the stance devices in the 60 articles of the study by the corpus analysis tool *AntConc* (Anthony, 2011). The search inventory consisted of items defined by Hyland (2000). These items were *hedges*, *boosters*, *attitude markers*, and *self-mentions*. The search items were gathered based on previous research into interactive features (e.g. Biber and Finegan, 1988; Hyland, 1998, 2000), from grammars (Biber, 1988; 1994) as in Hyland's (2005) study. After identifying the stance devices in the articles, they were analyzed throughout the different moves in the abstract sections. To analyze the use of stance devices considering the various rhetorical parts of research articles *the move model* suggested by Swales (1990) was applied. According to this model the moves are as follows: "*Introducing purpose*", "*Describing Methodology*", "*Summarizing Results*", and "*Presenting Conclusions*". The coding was manually undertaken by the researchers themselves separately to doublecheck. To make the analysis objective, valid and reliable, another experienced writing teacher controlled the coding



procedure. After coding, to examine differences/similarities between the two groups, the frequencies of the stance devices across the different moves of the abstracts in the research articles were driven taking the length of the abstracts into consideration. As for the qualitative analysis of the data the abstracts were analyzed to depict contextual, functional, and discourse features of the stance devices.

#### 4. RESULTS AND DISCUSSION

##### 4.1 Differences/Similarities in the Use of Stance Devices between Native and Non-native English-Speaking Academic Writers

The analysis of the data revealed that there were differences and similarities in the use of stance devices by native and non-native writers (see Table 1).

	Native writers	Non-native writers
Hedges	9,12	5,7
Boosters	6,43	9,5
Attitude markers	5,36	10,9
Self-mention	2,68	6,3
<b>Total</b>	<b>23,6</b>	<b>32,5</b>

Table 1. Stance devices in the research article abstracts (per 1000 words)

Table 1 displays that there is a moderate difference between the overall use of stance devices by native and non-native writers. Except for hedges the use of stance devices by non-native writers is more frequent than those of native writers. This is in tune with the study conducted by Martin-Martin (2003) who pointed out that native English speaking academic authors used more hedging devices compared to non-native English-speaking counterparts in research papers. Similarly, Huo and Cao (2011) found that the abstracts published in the English-medium applied linguistics journals the writers used hedges more frequently than the ones published in the Chinese-medium counterparts. This is in contrast with the study conducted by Clyne (1991) which focused on the use of hedging by German academics in research articles and has shown that German writers preferred to use hedges more than native writers of English and this outcome resulted from the influence of the mother tongue. This may indicate that Turkish writers followed the norms of their native L1 culture while writing in a foreign language differently from German writers. Hence, it could be stated that hedging is a culturally determined phenomenon, and the local discourse community has a severe impact on writer stance in research articles.

As a similarity, the verb “suggest” was the mostly used hedging device by both native and non-native writers. The use of hedging pinpoints that a statement is based on logical reasoning rather than certain knowledge (Hyland, 2005):

(1) Results suggest that these students do not have enough information about maintaining a healthy lifestyle.... (NNW).

(2) The findings suggest that flexibility can benefit older individuals’ self-views. (NW)

Non-native writers used attitude markers twice as much as native writers. Therefore, non-native writers tended to exemplify an assumption of shared attitudes, morals, behaviors and reactions to material, as Hyland (2005) stated.

The fact that self-mention items were more frequent in non-natives is in contrast with the findings of Martinez (2005) who designed a comparative study to investigate the use of first person in a corpus of manuscripts on biology written by native English-speaking authors and a corpus of research article articles written by non-native English-speaking Spanish authors. This is possibly due to the difference between the grammar of Spanish and Turkish. However, there is a moderate use of self-mention by both groups which is in tune with the view that in social sciences the use of self-mention is common (Hyland 2005).

#### 4.2 The Use of Stance Devices by the Native and Non-Native English-Speaking Academic Writers Based on the Different Moves in the Research Article Abstracts

Table 2 shows the distribution of stance devices in four moves used by native and non-native writers in research article abstracts. To examine the use of stance devices across the various rhetorical parts of research articles the move model suggested by Swales (1990) was utilized.

		Native writers	Non-native writers
Move 1 (introducing purpose)	Hedges	4,54	5,3
	Boosters	0,0	0,88
	Attitude markers	0,0	1,76
	Self-mention	7,95	11,05
	<b>Total</b>	<b>12,5</b>	<b>19,46</b>
Move 2 (describing methodology)	Hedges	1,13	0,0
	Boosters	0,0	0,0
	Attitude markers	0,0	0,88
	Self-mention	0,0	6,19
	<b>Total</b>	<b>1,13</b>	<b>7,07</b>
Move 3 (summarizing results)	Hedges	26,13	11,5
	Boosters	25	27,43
	Attitude markers	20,45	30,8
	Self-mention	3,4	1,76
	<b>Total</b>	<b>75</b>	<b>70,79</b>
Move 4 (presenting conclusions)	Hedges	6,81	0,88
	Boosters	2,27	0,88
	Attitude markers	2,27	0,88
	Self-mention	0,0	0,0
	<b>Total</b>	<b>11,36</b>	<b>2,65</b>

Table 2. Distribution of stance devices in different moves in research article abstracts

### ***Move 1 – Introducing Purpose***

In this move, there is a moderate difference between the two groups. In both groups mostly used device was self-mention. This may indicate that writers wanted to highlight their own contribution to the literature and to search for approval by using personal reference (Hyland, 2005). There were many cases of self-mention like the following in non-natives:

(3) In this study, I analyzed changes over time in networks consisting of closest friends in the context of the Turkish white-collar class. (NNW)

### ***Move 2 – Describing Methodology***

Move 2 was the part that contained the least stance devices. This is in tune with Pho's (2008) finding that while describing methodology writers tend to keep it fairly impersonal. For non-natives there were only a few cases by using self-mention:

(4) To collect the data I used the Matson Evaluation of Social Skills with Youngsters (MESSY) Scale, which was developed by Matson, .... (NNW)

### ***Move 3 – Summarizing Results***

The results indicated that stance devices were mostly seen in move 3- summarizing results in both groups. When summarizing the findings of the research, possibility modal verbs (can or may), which reflect uncertainty, were chosen in a few abstracts. In this move attitude markers were used with high frequency, and this is in tune with the findings of Pho (2008). "Significant" was the mostly used verb that was used as attitude marker:

(5) No significant associations were found between social desirability and altruism or between social desirability and empathy. (NW)

While summarizing the results, natives used mostly hedges or boosters or attitude markers. In the other group attitude markers were the mostly used ones.

(6) Changes in weight, physical activity, and anxiety predicted blood glucose change.... (NW)

For both groups boosters were highly frequent. According to Hyland (2005), boosters can enable authors to present their article with certainty while influencing interpersonal solidarity, setting the self-effacement entailed by hedges against assertion and involvement. This impression is wanted to be given by the writers.

### ***Move 4 – Presenting Conclusions***

In move 4, there was a very few uses of stance devices by non-natives. Natives used mostly hedges, especially the modal 'may'. This is in tune with the findings of Kafes (2009; 2018) who found that there is a common use of 'may' with epistemic possibility meaning in the "conclusion" section in a research article:

(7) In addition to serving as a sensitive dependent measure, participants' justifications when answering conjunction problems may provide insight into their reasoning. (NNW)

All in all, the analysis of the data revealed that there are differences in the use of stance devices across moves. This is in tune with the studies conducted by Pho (2008) and Bahrami et al. (2018) which examined the linguistic structures of moves and authorial stance in

various abstract moves. The results also revealed that in move 3- summarizing results stance devices were highly frequent. The least devices were seen in move 2 – describing methodology for native writers. However, for the non-native writers the least stance devices were seen in move 4 - presenting conclusions. This may result from the fact that in this group mostly conclusion was missing.

## CONCLUSION

The aim of the present study was to investigate how non-native English-speaking academic writers (Turkish academic writers) and native academic writers employ stance in their internationally published research articles in one discipline - Social Behavior and Personality. This study has shown that both native and non-native writers are aware of the fact that academic discourse is not just only the collection of factual details, unrevealing in an impersonal manner, and consequently reaching to an inevitable truth (Wishnoff, 2000). In addition to this, these authors have reported that they know the importance of sharing ideas with the reader through a mutual interaction.

Overall, the current study has revealed that there are both differences and similarities between the employment of stance devices by native and non-native English-speaking academic authors. In some cases, they showed related and distinguishable tendencies in the use of stance devices across the moves of the research articles. For instance, both groups used these devices mostly while summarizing the results and the least while describing methodology.

This study also has made contribution to fact that authorial stance exists in abstracts in contrast to general belief that abstracts are objective and impersonal. However, the degree of stance varies from move to move. This study has displayed that the move identification based on content and function only is supported by the examination of linguistic structures. Considering the various tendencies of the non-native and native English-speaking academic writers employed in their research article abstracts, it could be pinpointed that being a non-native English-speaking academic author yields a marked difference in the employment of stance devices in various parts of the research article abstracts.

One of the significant findings of the present study is that writer stance is closely related with the discourse community, rhetorical features of this community, the global and local genre conventions, cultural/educational background of the scholar, foreign language proficiency level of the scholar, and personality and/or style of the scholar underlined by Ağçam, 2015 a-b; Flottum et al., 2006; Ivanic 1998; Kafes, 2009, 2018; Khamkhien, 2014.

All in all, for the utmost important implication of this study is to emphasize the need of the text type knowledge and the purposes of the various rhetorical parts of the research article abstracts and how they tailor writer stance for the non- native English speaker academic writer. Non-native English speaker academic writers should raise their consciousness of academic stance by following the circumstances of the discourse community, which requires both pragmatic knowledge and lexicon-syntactical knowledge of English (Zhang and Zhang, 2021). Another major implication of this study might be helping non-native English-speaking academic writers to express writer stance appropriately in research articles through

academic writing courses given by the experts. In such courses, they should be introduced to the promotional aspect of abstract itself to be able to participate in the world of publication.

## REFERENCES

- Ağçam, R. (2015a). Author stance in doctoral dissertations of native and non-native speakers of English: A corpus-based study on epistemic adverbs. *Revista de Lenguas para Fines Especificos*, 21(2), 98-113.
- Ağçam, R. (2015b). A corpus-based study on attitudinal stance in native and nonnative academic writing. *International Journal of Humanities Social Sciences and Education*, 2 (8), 123-129.
- Alghazo, S., Salem, M.N.A., Alrashdan, I. & Rabab'ah, G. (2021). Grammatical devices of stance in written academic English. *Heliyon*, <https://doi.org/10.1016/j.heliyon.2021.e08463>.
- Anthony, L. (2011). AntConc (Version 3.2.4). Tokyo, Japan: Waseda University. Available from <http://www.antlab.sci.waseda.ac.jp/software.html>.
- Bahrami, L., Dowlatabadi, H.R., Yazdani, H. & Amerian, M. (2018). Authorial stance in academic writing: issues and implications for research in English language teaching. *International English Language & Translation Studies*, 6 (2), 69-80.
- Barton, E. (1993). Evidentials, argumentation, and epistemological stance. *College English*, 55, 745-769.
- Biber, D. (1988). *Variation across speech and writing*. Cambridge: Cambridge University Press.
- Biber, D. (2004). Historical patterns for the grammatical marking of stance. *Journal of Historical Pragmatics*, 5:1, 107-136.
- Biber, D. & E. Finegan (1988). Adverbial stance types in English, *Discourse Processes* 11, 1-34.
- Bonn, S.V. and Swales, J.M. (2007) English and French journal abstracts in the language sciences: Three exploratory studies. *Journal of English for Academic Purposes* 6, 93-108
- Chang, P., & Schleppegrell, M. (2016). Explicit learning of authorial stance-taking by L2 doctoral students. *Journal of Writing Research*, 8(1), 49-80.
- Chen, Z. (2012). Expression of Epistemic stance in EFL Chinese university students' writing. *English Language Teaching*, 5 (10), 173- 179.
- Clyne, M. (1991). The sociocultural dimension: The dilemma of the German-speaking scholar. In Schroder, H. (ed.) *Subject-oriented texts* (Research in text theory 16), 49-68. Berlin; New York: de Gruyter.
- Conrad, S. & D. Biber (2000). Adverbial making of stance in speech and writing. In S.Hunston and G. Tompson (eds.) *Evaluation in text*, 56-73. Oxford: Oxford University Press.
- Crismore, A. & W. J. Vande Kopple (1997). Hedges and readers: effects on attitudes and learning. In Markkanen, R., and Schroder, H. (eds.), *Hedging and discourse, approaches to*

- the analysis of a pragmatic phenomenon in academic texts*, 83-114. Berlin/New York: Walter de Gruyter.
- Crosthwaite, P., & Jiang, K. (2017). Does EAP affect written L2 academic stance: A longitudinal learner corpus study. *System*, <http://dx.doi.org/10.1016/j.system.2017.06.010>.
- Çakır, H. (2016). Native and Non-Native Writers' Use of Stance Adverbs in English Research Article Abstracts. *Open Journal of Modern Linguistics*, 6, 85-96.
- Dedaic, M. N. (2004). If I may say, I would like to ask and let me repeat: Modality-construed mitigation markers in political communication. In Fachinetti, R & Palmer, F. (eds.) *English modality in perspective. Genre analysis and contrastive studies*, 45-66. Germany: Peter Lang GmbH.
- Flottum, K., Jonasson, K. and Noren, C. (2006). *ON -pronom a facettes. Akademisk Prosa 3: 87-100. Skrift er fra KIAP*. Department of Romance studies, University of Bergen.
- Getkham, K. (2016). Authorial stance in Thai students' doctoral dissertation. *English Language Teaching*, 9 (3), 80-95.
- Gillaerts, P., Velde, F.V. (2010) Interactional Meta discourse in Research Article Abstracts. *Journal of English for Academic Purposes* 9, 128-139.
- Graetz, N, 1985, Teaching EFL students to extract structural information from abstracts. In Ullrich, J. Mand Pugh A. K. (eds) *Reading for Professional Purposes: Methods and Materials in Teaching Languages*, Leuven: Acco, pp.123-135 (7) (PDF) *Patterns in Scientific Abstracts*.
- Henderson, A. and Barr, R. (2010) Comparing indicators of authorial stance in psychology Students' writing and published research articles. *Journal of Writing Research* 2 (2), 245-264.
- Hinkel, E. (1997). Indirectness in L1 and L2 academic writing. *Journal of Pragmatics*, 27, 361-386.
- Hunston, S. & G.Thompson (eds.) (2000). *Evaluation in text: Authorial stance and the construction of discourse*. Oxford: Oxford University Press.
- Hyland, K. (1998). Persuasion and context: The pragmatics of academic meta discourse. *Journal of Pragmatics*, 30(4), 437-455.
- Hyland, K. (2000). Hedges, boosters, and lexical invisibility: Noticing modifiers in Academic texts. *Language Awareness*, 2 (4), 179-196.
- Hyland, K. (2002). Authority and invisibility: Authorial identity in academic writing, *Journal of Pragmatics*, 34, 1091-1112.
- Hyland, K. (2003). *Second language writing*. Cambridge: Cambridge University Press.
- Hyland, K. (2004). Disciplinary interactions: Meta discourse in L2 postgraduate writing. *Journal of Second Language Writing*, 13, 133-151.
- Hyland, K. (2005). Stance and engagement: A modal of interaction in academic Discourse, *Discourse Studies*, 7 (2), 173-193.



- Hyland, K. & Tse, P. (2005). Hooking the reader: A corpus study of *evaluative that* in Abstracts. *English for Specific Purposes*, 24 (2005) 123-139.
- Huo, G. and 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, 2795-2809.
- Ivanic, R. (1998). Writing and identity: The discursive construction of identity in academic writing. *Amsterdam/Philadelphia: John Benjamins*.
- Kafes, H. (2009) Authorial Stance in Academic English: Native and Non-native Academic Speaker Writers' Use of Stance Devices (Modal Verbs) In Research Articles (PhD Thesis) Anadolu University, Eskişehir.
- Kafes, H. (2018). Stance in academic writing. *European Journal of Education Studies*, 4 (2), 1-16.
- Keck, C. M. & D. Biber (2004). Modal use in spoken and written university registers: A Corpus Based study. In Fachinetti, R & Palmer, F. (eds.) *English modality in perspective. Genre analysis and contrastive studies*, 3-25. Germany: Peter Lang GmbH.
- Khamkhen, A. (2014). Linguistic features of evaluative stance: findings from research article discussions. *Indonesian Journal of Applied Linguistics*, 4 (1), 54-69.
- Lewin, B.A. (2005). Hedging: An exploratory study of authors' and readers' identification of 'Toning down' in scientific texts, *Journal of English for Academic Purposes*, 4,163-178.
- Martin-Martin, P. (2003) A genre analysis of English and Spanish research paper abstracts in experimental social sciences. *English for Specific Purposes* 22, 25-43.
- Lorés, R. (2004). On RA abstracts: from rhetorical structure to thematic organization. *English for Specific Purposes*, 23, 280-302.
- Martinez, I. A. (2001). Impersonality in the research article as revealed by analysis of the transitivity structure. *English for Specific Purpose*, 20, 227-247.
- Martinez, I.A. (2005) Native and non-native writers' use of first-person pronouns in the different sections of biology research articles in English. *Journal of Second Language Writing*14, 174-190.
- Min, S., Paek, J.J. & Kang, Y. (2019). Exploring the use of hedges and stance devices in relation to Korean EFL learners' argumentative writing qualities. *English Teaching*, 74 (1), 3-23.
- Mofian, F., Talati-Baghsiahi, A. & Yaramadzhezi, N. (2014). Modal auxiliaries as stance-taking devices in linguistics research articles: a functional contrastive analysis. *Linguistik online*, 91 (4/18), 59-77.
- Pho, P.D. (2008) Research article abstracts in applied linguistics and educational technology: a study of linguistic realizations of rhetorical structure and authorial stance. *Discourse Studies Vol 10 (2):*231-250.

- Rezzano, N. S. (2004). Modality and modal responsibility in research articles in English. In Fachinetti, R & Palmer, F. (eds.) *English modality in perspective. Genre analysis and contrastive studies*, 101-118. Germany: Peter Lang GmbH.
- Salager-Meyer, F. (1992). A Text-type and move analysis study of verb tense and Modality distribution in medical English Abstracts, *English for Specific Purposes*, 11, 93-113.
- Salager-Meyer, F. (1998). Language is not a physical object. *English for Specific Purposes*, 17, 295-302.
- Samraj, B. (2002). Introductions in research articles: Variations across disciplines. *English for Specific Purposes*, 21 (1), 1-17.
- Seyri, H.& Rezaei, S. (2021). Disciplinary and cross-cultural variation of stance and engagement markers in soft and hard sciences research articles by native English and Iranian academic writers: a corpus-based analysis. *ISELT*, 1 (1), 1-22.
- Shirzadi, M., Akhgar, F., Rooholamin, A. & Shafiee, S. (2017). A corpus-based contrastive analysis of stance strategies in native and nonnative speakers' English academic writings: introduction and discussion sections in focus. *International Journal of Research in English Education*, 2 (4), 30-40.
- Stotesbury, H. (2003) Evaluation in research article abstracts in the narrative and hard sciences. *Journal of English for Academic Purposes* 2, 327-341.
- Swales, J. M. (1990). *Genre analysis, English in academic and research settings*. Cambridge: Cambridge University Press.
- Swales, J. M. & Feak, C. B. (2000). *Academic writing for graduate students*. Ann Arbor: *English in today's research world*. Ann Arbor, The University of Michigan Press.
- Zhang, L. & Zhang, L. J. (2021). Fostering stance-taking as a sustainable goal in developing EFL students' academic writing skills: exploring the effects of explicit instruction on academic writing skills and stance deployment. *Sustainability*, 13,4270, 1-20.
- Widdowson, H. (1979). *Explorations in applied linguistics*. Oxford: Oxford University Press.
- Wishnoff, J. R. (2000). Hedging your bets: L2 learners' acquisition of pragmatic devices in academic writing and computer-mediated discourse. *Second Language Studies*, 19 (1). 119-148.

## APPENDIX A

### References of Turkish Writers' Articles

- Akça, F. (2011). The relationship between text anxiety and learned helplessness. *Social Behaviour and Personality* 39(1), 101-112.
- Arslan, E., Durmuşoğlu-Saltalı, N. and Yılmaz, H. (2011). Social skills and emotional and behavioral traits of preschool children. *Social Behaviour and Personality*,39(9), 1281-1288.
- Bekiroğulları, Z. (2012). Perceptions of nonheterosexuality among future Muslim counseling psychologists. *Social Behaviour and Personality*, 40(9), 1569-1584.

- Besen, D.B. and Esen, A. (2012). Acceptance of illness and related factors in Turkish patents with diabet. *Social Behaviour and Personality*, 40(10), 1597-1610.
- Can, S. (2011). Effects of stress caused by the public personnel selection examination on the performance of physical education and other teacher trainees in Turkey. *Social Behaviour and Personality*, 39(10), 1367-1378.
- Çolak, E., Orsal, Ö., Orsal, Ö., and Giray, S. (2012). Use of effective contraceptive methods by married Turkish women: a receiver operating characteristic analysis. *Social Behaviour and Personality*, 40(5), 829-842.
- Çetinkalp, Z.K. (2012). Achievement goals and physical self-perceptions of adolescent athletes. *Social Behaviour and Personality*, 40(3), 473-480.
- Dinç, Z. (2011). Social self-efficacy of adolescents who participate in individual and team sports. *Social Behaviour and Personality*, 39(10), 1417-1424.
- Durmuşoğlu-Saltalı, N. (2012). The relationship between abuse within the family and social skills of Turkish senior primary school children. *Social Behaviour and Personality*, 40(4), 585-590.
- Ergeneli, A., Camgöz, S.M., and Karapınar, P.B. (2010). The relationship between elf-efficacy and conflict-handling styles in terms of relative authority positions of the two parties. *Social Behaviour and Personality*, 38(1), 13-28.
- Güven, S., Şener, A., and Yıldırım, B. (2011). Sociocontextual variables that affect spousal perceptions of social support. *Social Behaviour and Personality*, 39(9), 1153-1160.
- İskifoğlu, G. And Ağazade, A.S. (2013). Translation and validation of a Turkish version of the California critical thinking disposition inventory. *Social Behaviour and Personality*, 41(2), 187-196.
- Karadağ, M. and Yıldırım, N. (2010). Health behaviours in health sciences university students in Turkey. *Social Behaviour and Personality*, 38(1), 43-52.
- Karadağ, Ö. (2013). Emotional intelligence functions of Turkish proverbs. *Social Behaviour and Personality*, 41(2), 295-310.
- Karaman, S. (2011). Effects of audience response systems of student achievement and long-term retention. *Social Behaviour and Personality*, 39(10), 1431-1440.
- Kılınç, N. (2011). Clothing color preferences of boys and girls aged between six and nine. *Social Behaviour and Personality*, 39(10), 1359-1366.
- Kıran-Esen, B. (2012). Analyzing peer pressure and self-efficacy expectations among adolescents. *Social Behaviour and Personality*, 40(8), 1301-1310.
- Koç, M. (2010). The effect of cognitive-behavioral therapy on stuttering. *Social Behaviour and Personality*, 38(3), 301-310.
- Mert, H., Kızılcı, S., Uğur, Ö., Küçükgüçlü, Ö., and Sezgin, D. (2012). Locus of control in nursing students on a problem-based learning program: a longitudinal examination. *Social Behaviour and Personality*, 40(3), 517-526.

- Mırıcı, İ.H. (2010). Influence of prestudy on foreign language attitude. *Social Behaviour and Personality*, 38(2), 187-196.
- Oktan, V. (2011). The predictive relationship between emotion management skills and internet addiction. *Social Behaviour and Personality*, 39(10), 1425-1430.
- Orçan, M., Çiçekler, C.Y., and Aral, N. (2012). Communication skills of Roma and non-roman mothers and receptive language levels of their children. *Social Behaviour and Personality*, 40(8), 1357-1364.
- Ören, N. (2012). Hopelessness levels of children living with their parents or in an orphanage. *Social Behaviour and Personality*, 40(3), 501-508.
- Özben, S. (2013). Social skills, life satisfaction, and loneliness in Turkish university students. *Social Behaviour and Personality*, 41(2), 203-214.
- Özgülven, N. and Mucan, B. (2013). The relationship between personality traits and social media use. *Social Behaviour and Personality*, 41(3), 517-528.
- Saygı, H., Tolon, T. and Tekoğul, H. (2011). Job satisfaction among academic staff in fisheries faculties at Turkish universities. *Social Behaviour and Personality*, 39(10), 1395-1402.
- Şahin, M. (2010). Teachers' perceptions of bullying in high schools: a Turkish study. *Social Behaviour and Personality*, 38(1), 127-142.
- Ünal, A. (2013). Teachers' deviant workplace behaviors: scale development. *Social Behaviour and Personality*, 41(4), 635-642.
- Yanıklar, C. (2012). Stability and instability in the friendship networks of the Turkish white-collar class. *Social Behaviour and Personality*, 40(7), 1123-1136.
- Yılmaz, C. (2011). Teachers' perceptions of self-efficacy, English proficiency, and instructional strategies. *Social Behaviour and Personality*, 39(1), 91-100.

#### References of Native Writers' Articles

- Allison, M., Mathews, K., and Michael, S.W. (2012). Alibi believability: the impact of salacious alibi activities. *Social Behaviour and Personality*, 40(4), 605-612.
- Annesi, J.J. (2012). Relationship of changes in weight, physical activity, and anxiety with blood glucose change in adults with diabetes. *Social Behaviour and Personality*, 40(5), 801-804.
- Blunk, E.M., Russel, E.M., and Williams, S.W. (2008). Pilot study of Hispanic mothers and maternal separation anxiety. *Social Behaviour and Personality*, 36(6), 727-736.
- Bosacki, S.L. (2013). A longitudinal study of children's theory of mind, self-concept, and perceptions of humor in self and other. *Social Behaviour and Personality*, 41(4), 663-674.
- Bowler, M.C., Bowler, J.L., and Cope, J.G. (2012). Further evidence of the impact of cognitive complexity on the five-factor model. *Social Behaviour and Personality*, 40(7), 1083-1098.
- Burks, D.J., Youll, L.K., and Durtschi, J.P. (2012). The empathy-altruism association and its relevance to health care professions. *Social Behaviour and Personality*, 40(3), 395-400.

- Burton, L.A., Henniger, D., Hafetz, J., and Cofer, J. (2009). Aggression, gender-typical childhood play and a prenatal hormonal index. *Social Behaviour and Personality*,37(1), 105-116.
- Finkelstein, M.A. (2010). Individualism/collectivism: implications for the volunteer process. *Social Behaviour and Personality*,38(4),445-452.
- Furnham, A. and Miller, T. (2008). Personality, attention to detail and telephone manner. *Social Behaviour and Personality*,36(2), 177-182.
- Gabrielatos, C. & McEnery, T. (2005). Epistemic modality in MA dissertations. In Fuertes Olivera, P. A. (ed.), *Lengua y Sociedad: Investigaciones recientes en linguistica aplicada*. Linguistica y Filologia no. 61 (pp. 311-331). Valladolid: Universidad de Valladolid.
- Green, T.D. and McClearn, D.G. (2010). The actor-observer effects as a function of performance outcome and nationality of other. *Social Behaviour and Personality*,38(10), 1335-1344.
- Hooten, M.A., Noeva, K., and Hammonds F. (2009). The effects homosexual imagery in advertisements on brand perception and purchase intention. *Social Behaviour and Personality*,37(9), 1231-1238.
- Kelly, A.C., Zuroff, D.C., Leybman, M.J., and Martin, A. (2011). Leaders' and followers' social rank styles interact to predict group performance. *Social Behaviour and Personality*,39(7), 963-978.
- Knoth, R.L., Benassi, V.A., and Geher, G. (2009). Measurement of the conjunction error in social judgment: answer choice and answer justification. *Social Behaviour and Personality*,37(4), 481-490.
- Kopelman, R.E., Fossen, R.J.S., Paraskevas, E., and Lawter, L. (2009). The bide is keeping her name: a 35-year retrospective analysis of trends and correlates. *Social Behaviour and Personality*,37(5), 687-700.
- Krauss, S. (2008). A tripartite model of idiographic research: progressing past the concept of idiographic research as a singular entity. *Social Behaviour and Personality*,36(8), 1123-1140.
- Lane, A.M., Thelwell, R.C., Lowther, J., and Devonport, T.J. (2009). Emotional intelligence and psychological skills use among athletes. *Social Behaviour and Personality*,37(2), 195-202.
- Levy, B.R. (2008). Rigidity as a predictor of older persons' aging stereotypes and aging self-perceptions. *Social Behaviour and Personality*,36(4),559-570.
- Losonczy-Marshall, M.E. (2008). Gender differences in latency and duration of emotional expression in 7-through 13-month-old infants. *Social Behaviour and Personality*,36(2),267-274.
- McCabe, C. (2008). Gender effects on spectators' attitudes toward nba basketball. *Social Behaviour and Personality*,36(3), 347-358.
- McGregor, L.N., Gee, D.E., and Posey, K.E. (2008). I feel like a fraud and it depresses me: the relation between the imposter phenomenon and depression. *Social Behaviour and Personality*,36(1), 43-48.



- Newman, L.S. and Kraynak, L.R. (2013). The ambiguity of a transgression and the type of apology influence immediate reactions. *Social Behaviour and Personality*,41(1), 31-46.
- Parmar, P., Harkness, S., and Super, C.M. (2008). Teacher or playmate? Asian immigrant and Euro-American parents' participation in their young children's daily activities. *Social Behaviour and Personality*,36(2), 163-176.
- Persinger, M.A. (2008). Confounding variables within "referral controls" for children within with histories of sexual stimulation by adults: implications for erroneous attributions from "childhood sexual abuse". *Social Behaviour and Personality*,36(5),665-672.
- Peterson, V.M. (2009). Predictors of academic success in first semester baccalaureate nursing students. *Social Behaviour and Personality*,37(3),411-418.
- Regan, P.C. (2011). Cinderella revisited: women's appearance modification as a function of target audience sex and attractiveness. *Social Behaviour and Personality*,39(4),563-576.
- Roman, N.V. (2011). Maternal parenting in single and two-parent families in south Africa from a child's perspective. *Social Behaviour and Personality*,39(5),577-586.
- Signorella, M.L. and Frieze, I.H. (2008). Interrelations of gender schemas in children and adolescents: attitudes, preferences, and self-perceptions. *Social Behaviour and Personality*,36(7),941-954.
- Skinner, N.F. and Iaboni, K. (2009). Personality implications of adaption-innovation: IV. Cognitive style as a predictor of marital success. *Social Behaviour and Personality*,37(8),1111-1116.
- Skinner, N.F. and Fox-Francoeur, C.A. (2010). Personality implications of adaption-innovation: V. Birth order as a determinant of cognitive style. *Social Behaviour and Personality*,38(2),237-240.
- Trinh, L., Rhodes, R.E., and Ryan, S.M. (2008). Gender differences in belief-based targets for physical activity intervention among adolescents. *Social Behaviour and Personality*,36(1),77-86.