

Cultural or Discoursal Proclivity: Rhetorical Structure of English and Turkish Research Article Abstracts

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ABSTRACT The research article abstract (RAA) has become an essential part of the research article (RA) and an important genre to study. Despite various studies on cultural differences in the organization of RAAs, no study comparing English and Turkish RAAs has been conducted. Motivated by this need, this paper presents a comparative analysis of English and Turkish RAAs, with the aim of discovering whether abstracts by authors from different cultural and linguistic backgrounds employ the same rhetorical strategies and linguistic realizations of rhetorical moves. For this purpose, the generic structure of three corpora of RAAs was analyzed, following Swales' model. The results indicate that Turkish academic writers (TAWs) closely follow North American abstract writing conventions, yet they also remain faithful to the conventions of their local discourse community, conforming closely to the M2-M3-M4 arrangement, indicating three obligatory moves in abstracts-*Presenting the research, Methodology, and Results*.

INTRODUCTION

The research article abstract (RAA) has become an essential part of the RA. A genre equipped with such weight has seen its significance in the various expressions of writers. Huckin (2001) depicts the abstract as a screening-device and Bazerman (1984: 58) sees it as "representative of the research article." In a similar vein, Swales (1990: 179) underscores its "distillatory nature", and Salager-Meyer (1990: 367) sees it as a "crystallizer", and Lores (2004: 281) considers it as a "gateway". The importance underscored is evidently truer in today's busy world, flooded with ever-increasing information. As widely acknowledged, recent years have witnessed a proliferation of journals worldwide, disseminating a massive industry of knowledge, with several million research papers published every year (Swales and Feak 2009). This picture could be better envisioned given the increase in knowledge productions. The online database SCOPUS lists 16,000 peer-reviewed journals, to which are added 600 new publications each year. In underlying the importance of this massive knowledge productions, Tse and Hyland (2010: 1880-1881) observe that "no finding, discovery, or insight has any validity until it has gained peer approval through publication in a journal."

The role of the RAA can better be appreciated if we consider the increasingly overburdened researcher who is to "digest and synthesize" this

immense information flood (Hyland 2004: 64). For the researcher who is challenged by digesting and synthesizing the ever-increasing flow of information in a limited time on the one hand and who has to 'publish in order not to perish' Duszak and Lewkowicz (2008) on the other hand, the RAA constitutes a gateway. This gateway leads readers to take up an article, determine which journals to select contributions from, and which conferences to send papers and/or abstracts to (Lores 2004: 281). Since the RAA offers clear guidance to readers, indicating to them whether the full article merits reading (Hyland 2004: 63), almost every journal, even those published in languages other than English, requires an English abstract to precede the main article (Martin-Martin 2003).

In order for the RAA to accomplish its persuasive purpose, "it must recognize and replicate the field's organizational structures, beliefs and authorized institutional practices" (Hyland 2004: 63). Hence, knowledge of both the textual organization and the conventional linguistic realization of the rhetorical moves of the RAA are critically important for writers wishing to gain approval of their respective discourse communities, and international recognition. Motivated by this necessity, the RAA has become as an important part of the RA, attracted interest and emerged as an important genre to study. Studies on RAAs by Kaplan et al. (1994), Santos (1996), Hyland (2004), Lores (2004), Swales and Feak

(2009) are just some to mention here. Kaplan et al. (1994), Santos (1996), Melander et al. (1997), Huckin (2001, 2004), Samraj (2005), Swales and Von Bonn (2007), Pho (2008) and Swales and Feak (2009) investigated the rhetorical structure of English RAAs, whereas some other researchers, for example, Salager-Meyer (1992) and Ventola (1994) focused on its linguistic dimension.

Starting with Kaplan's (1966) pioneering work on contrastive rhetoric, a number of studies have been conducted-driven by the idea that textual organization of academic discourse is governed by socio-cultural factors. Contrastive rhetoricians underline that different discourse communities' expectations are the primary reason for cross-cultural differences in writing styles and that writers of 'second' languages could transfer their L1 textual and rhetorical strategies to new L2. Given that scientific discourse varies across cultures and languages, it is not surprising that the cross-cultural aspects of this issue have been dealt with by some scholars; Connor (1996), Clyne (1987), Mauranen (1993), Cmejrkova (1996), Melander et al. (1997), Moreno (1997), Burgess (1997), and Mur-Duenas (2007) are just some to mention. Nevertheless, no cross-cultural comparative study on the rhetorical structure of RAAs by American and Turkish academic writers has been conducted so far. Motivated by this need, this paper examines the rhetorical structure of English RAAs by AAWs and TAWs and Turkish RAAs by TAWs, hoping to provide non-native English academic writers, especially Turkish writers, with an up-to-date picture of abstracts by Inner Circle academic writers.

This paper specifically aims to offer a contrastive analysis of:

- a) the degree to which the rhetorical structure of English RAAs by American and Turkish academic writers conforms to Swales' model, and
- b) the linguistic features employed by American and Turkish academic writers to realize the rhetorical structure of English and Turkish RAAs.

DATA AND METHODOLOGY

Construction of the Corpora

Since no study on the rhetorical structure of RAAs by American and Turkish academic writers has been conducted, this paper aims to fill this gap. To address this issue, a total of 600

academic RAAs on education in English and Turkish were sampled. The field of education-teaching and learning in secondary and higher education- was chosen for practical reasons such as the online availability of articles. A single discipline was chosen as disciplinary variations could have discernible influences on rhetorical structure and language use (Swales 1990; Thompson 1993; Posteguillo 1999). Three parallel sub-corpora of RAAs, displaying maximum similarity, were constructed. The selection of journal sources was based on two criteria: being indexed and abstracted in the *Social Sciences Citation Index* and being available online. In the selection process, the major issues Nwogu (1997) suggests in article selection- representativity, reputation, and accessibility- were taken into consideration. The Turkish RAAs were obtained from two major Turkish-medium journals: *Educational Sciences: Theory and Practice* (Kuram ve Uygulamada Egitim Bilimleri) and *Turkish Public Administration Annual* (TODAI). The Turkish articles address mainly Turkish audiences. The English abstracts by Turks were derived from *Hacettepe University Journal of Education* and *Education and Science*, both of which address international, as well as local audiences. The RAAs by American academic writers (AAWs) came from two leading American journals: *American Journal of Experimental Education* and *American Journal of Educational Research*. Only abstracts of empirical RAAs were included in the corpus.

Utmost attention was paid to constructing parallel sub-corpora with maximum similarity. The corpus by American writers is made up of 100 RAAs, selected at random from among 200 journal articles. Likewise, the corpus in English by Turkish writers is made up of 100 RAAs, selected randomly from among 200 journal abstracts from two Turkey-based journals on education. The corpus in Turkish by Turkish writers consists of 100 RAAs, selected randomly among from 200 RAAs from two leading Turkey-based journals on education. All of the abstracts constituting the three corpora were published between 2000 and 2012. The abstracts by American academic writers, henceforth (AAWs), had a mean of 130 words, while the English abstracts by Turkish academic writers (EATAWs) had a mean of 141 words. The Turkish abstracts by Turkish academic writers (TATAWs) had a mean of 126 words. American authors' nationality was

based on information obtained from their biobdata accompanying their articles, their names, affiliations, and their CVs. This information was also confirmed through email exchanges with the authors.

Approach to the Analysis of Rhetorical Structure/Move Structure

Following Dudley-Evans (1986), Swales (1981, 1990), Salager-Meyer (1990, 1991, 1992), and Bhatia (1993), the structure of RAAs was analyzed in terms of the rhetorical structure of the RA: *Background, Presenting research, Methods, Results, and Conclusion*, resulting in five moves. In addition to employing the moves traditionally ascribed to abstracts, as suggested by Swales and Feak (2009) - *Background/Introduction, Presenting, Methods, Results, and Discussion* (BPMRC), and Background move was further analyzed following Swale's (1990) CARS (Create a Research Space) model and the Conclusion/Discussion move was analyzed following Dudley-Evans' model (1986) for they are more comprehensive allowing a much more detailed analysis.

The identification of moves was based on both the function and content of the text, following a top-down approach. Three annotators coded the moves; a native American-English speaker lecturer, and the researcher, annotated the English abstracts, and a Turkish linguist and the researcher coded the moves in the Turkish abstracts. After the coders identified the moves, a sample of which is presented below, they analyzed typical linguistic features in each move. For inter-rater reliability, inter-coder reliability procedures were implemented to make sure that a move can be identified with a high degree of accuracy by trained coders (Crookes 1986; Burgess 1997, 2002).

All of the abstracts from each corpus were coded by the three coders. The inter-rater reliability of both English and Turkish abstracts was rated separately. The inter-rater reliability of English and Turkish abstracts was measured using Cohen's k (cited in Orwin 1994). Despite slight disagreements on the differences in percentages, the inter-rater reliability of English abstracts was 85 percent and the inter-rater reliability of Turkish abstracts was 90 percent. The few discrepancies were resolved through discussion, clarification, and criteria checking. Although the

most common realization of moves occurred from one sentence to another, a move which was realized by structures ranging from several sentences to a phrase or a word was also accepted in this paper, as seen in the example below:

Example 1

Researchers, policymakers, practitioners, and parents have assumed a positive relationship between school attendance and academic success (*Introduction move 1, Step 1: Establishing a territory through centrality claim*). And yet, among the vast body of empirical research examining how input factors relate to academic outcomes, few investigations have honed in on the precision of the relationship between individual attendance and student achievement (*Introduction move 2, Step 1B: Establishing a niche through gap indication*). The purpose of this article is to provide insight into this relationship. Specifically, this study has evaluated the hypothesis that the number of days a student was present in school positively affected learning outcomes (*Introduction move 3, Step 1B: Occupying the niche; through announcing present research*). To assess this, a unique empirical approach was taken in order to evaluate a comprehensive dataset of elementary and middle school students in the Philadelphia School District (*Methodology*). Employing a fixed effects framework and instrumental variables strategy, this study provides evidence from a quasi-experimental design geared at estimating the causal impact of attendance on multiple measures of achievement, including GPA and standardized reading and math test performance. (*Methods and Results move embedding*) The results consistently indicate positive and statistically significant relationships between student attendance and academic achievement for both elementary and middle school students (*Conclusion move 1*). (An abstract by an American writer)

Approach to the Analysis of the Linguistic Realization of Moves

The linguistic features of RAAs were analyzed, following Pho (2008: 235). The linguistic features of RA abstracts identified by (Hyland 1996, 2005; Kanoksilapatham 2003; Vassileva 2000, 2001) were also taken into consideration.

The following linguistic features were considered:

- Grammatical subjects
- Verb tense
- Voice

The classification of grammatical subjects applied in this study followed MacDonald's (1992, 1994) classification of grammatical subjects.

Phenomenal Classes
(*that is what the researcher studies*)

1. *Class 1:* Objects of research and their attributes, including nouns referring to people or objects studied and their 'attributes, properties, action, behavior, or motivations and thoughts'. (MacDonald 1994: 158): *the participants in the study, variables, these strategies, etc.*
2. *Class 2:* Self-reference, including words referring to the author(s) of the paper themselves): *I, we, the author, the researcher, etc.*
3. *Class 3:* Reference to writer's own work (including words referring to the study or the paper): *this study, this research, this investigation, this paper, this article, this report, etc.*
4. *Class 4:* Reference to writer's own work (referring to details of the study, research instruments, and research-related events/processes): *the findings, the results, the purpose of the study, pedagogical implications, test, questionnaire, survey, conclusion, discussion, argument, explanation, interpretation, comparison, analysis, etc.*

FINDINGS

Macrostructure and Move Frequency of Abstracts

The rhetorical structure was analyzed and each sentence was assigned to a move. However, when a sentence served two rhetorical functions, especially when the sentence included more than one clause, it was assigned to two moves. A common pairing of rhetorical functions in one sentence is the purpose-method combination. As seen in Table 1, TATAWs displayed a great deal of variation in their length, ranging

from a minimum of 56 words to a maximum of 257 words. On average, EATAWs are slightly longer. The two rhetorical patterns (BPMRC and CARS) are distributed much more evenly in AAWs, the BPMRC pattern being more frequent than the CARS pattern. 70 percent of AAWs included four moves, whereas only 32 percent of EATAWs and 42 percent of the ATAWs had four moves.

Table 1: Number of words and patterns favored in RAAs in English and Turkish

	AAAWs	EATAWs	TATAWs
Maximum number of words	201	237	257
Minimum number of words	76	73	56
Average number of words	130	141	126
BPMRC (All moves in percentages)	44	18	20
CARS (All moves in percentages)	44	18	20

Both BPMRC and CARS patterns are rarer in EATAWs and TATAWs. While only 18 percent of EATAWs include all the moves within the BPMRC (Background, purpose, methods, results, conclusion) pattern, 20 percent of TATAWs display all the moves. A similar pattern was observed with CARS. All of the abstracts appear to include similar rhetorical moves. However, a closer look reveals subtle differences in the constituent parts of some moves and in the frequency with which certain moves appear (Table 2).

Table 2: Rhetorical moves in the abstracts in percentages

	AAAWs	EATAWs	TATAWs
Move 1-Background	44	18	20
Move 2-Presenting research	100	100	99
Move 3-Methods	100	100	98
Move 4-Results	98	96	98
Move 5-Discussion	56	33	45

The most striking variation is the importance attached to *Background* move. Though this move is found in almost half of the AAWs, less than one fourth of the abstracts by TAWs included it, be it English or Turkish. This move, most probably because of its complexity, (Swales 1990), was the least common. The statement of purpose

move seems obligatory as this rhetorical move appears consistently in almost all of the abstracts.

The *Methods move* is present and equally important across the three corpora. This commonality is not surprising since discussion of methodology and experimental procedure is crucial in research abstracts (Bhatia 1993: 82). These findings are in line with those of Bittencourt Dos Santos's (1996) and Pho's (2008). This observation also supports Hyland's (2004) finding, regarding the increasing trend for abstracts to include situating the research and the methodology move. The *Results* move appears consistently in the abstracts and is obligatory. This finding is not surprising given that the results of a study are presumably the most important contribution to the ongoing disciplinary discourse (Samraj 2002: 44).

The *Conclusion move* seems less important in the abstracts by TAWs, since only 33 percent of the English abstracts and 45 percent of the Turkish abstracts by TAWs employed it. However, more than half of the AAAs 56 percent included it. Taking the variations presented in Table 3, AAAs appear to be more uniform as 44 percent of their abstracts include the five units and 60 percent of them had four moves. However, only 18 percent of the EATAWs included the five moves and 32 percent of them contained four units. Only 10 percent of the TATAWs included the five units while 52 percent of them had four units.

Table 3: Number and percentages of structural units in the abstracts

Moves	AAAs		EATAWs		TATAWs	
	No	100	No	100	No	100
5 units	44		18		20	
4 units	60		32		46	

It can be observed in Table 4, *presenting the research* move is present in almost half of the AAAs, yet this percentage is quite low in EATAWs and TATAWs. When this move is incomplete in EATAWs and TATAWs, they always

Table 4: Irregularities in the STRPMRC abstracts in percentages

Moves	AAAs	EATAWs	TATAWs
BPMRC	44	18	20
BPMR	55	33	33
PMRC	1	23	26

include *Purpose*, *Method*, and *Conclusion* moves.

Move Sequence and Cycles

Generally speaking, the great majority of the abstracts in all the groups (AAAs, 98 %, EATAWs 97 %, and TATAWs 100 %) included the sequence of moves as indicated in the model, namely, BPMRC. In two cases, American academic writers expressed their purposes after presenting their methodology. Similarly, in three instances, EATAWs stated their purposes after their methodology.

All of the moves in the abstracts were realized by a sentence or a series of sentences or at least a clause. Most of the move embedding occurred with the *Methodology* move, embedded mostly in the *Purpose* move, which is in line with Pho's (2008) findings. Although move embedding is almost non-existent in abstracts by Turkish academic writers, more than 20 percent of AAAs include move embedding. American academic writers embedded *Purpose* move with *Methods* move. Another commonly preferred move embedding by American academic writers was again pairing moves 2 and 3 in 11 cases, giving some information about method in a left-branching sentence, which contributes to the fluent flow of information.

Description and Linguistic Realization of Abstract

Description and Linguistic Realization of Move 1-Introduction

In this paper, the *Background* move was analyzed according to Swales' (1990) CARS model. Many of the moves Swales (1981, 1990) offers for the analysis of RA introductions were reflected in the *Introduction* move of the abstracts. By and large, the groups employed the three rhetorical moves to a certain extent, as is evident in Table 5. *Move 3 Occupying the niche* is present in almost all of the abstracts but for one TATAWs. Both EATAWs and TATAWs employed *Move 1 Establishing a territory* and *Move 2 Establishing a niche* a lot less than AAAs.

As seen in Table 5, the groups realized *Move 1 Establishing a territory* mostly through *Claiming centrality* and *Making topic generaliza-*

tions. Centrality claims, according to Swales (1990: 144), “are appeals to the discourse community whereby members are asked to accept that the research about to be reported is part of a lively, significant or well-established research area.” AAWs gave two times more importance to establishing a territory, through which they placed their research within the scope of previous research. This choice, according to Van Bonn and Swales (2007), can be explained with English abstracts’ feature of giving prominence on arguing a point. As seen in Table 5, 20 percent of the AAWs appealed to their respective discourse communities through centrality claims. By so doing, AAWs preferred to prepare the ground to introduce their own work.

While *Claiming Centrality* and *Making Topic Generalizations* are equally important in AAWs and EATAWs, TATAWs preferred *Step 2* a lot more than *Step 1* to establish a territory. Besides these differences, further analysis revealed slight inter-group dissimilarities in the constituent parts of the steps of move 1. AAWs claimed centrality by claiming interest (7 out of 20), indicating a problem (5 out of 20), referring to a standard procedure (4 out of 20), indicating importance (3 out of 20), and by indicating what is known rather than what is not. As it is the case with the following excerpt, the writers claimed interest using lexical items such as ‘recently, lately, in recent years, increasingly, popular, attention’ and so on.

“...*Recently*, educational researchers and practitioners have turned to value-added models to evaluate teacher performance. Although value-added estimates depend...” (From AAWs, Italics added).

In addition to resorting to such lexical items to claim interest, the writers also used present perfect tense to underline the recentness of interest. Another common strategy AAWs employed to make centrality claims is *indicating a problem*. In highlighting problems, lexical items with a negative meaning were used, mostly in the present tense. They also used present simple, mostly passive, to refer to a standard procedure. Similarly, EATAWs preferred to claim centrality by indicating importance (4 times), claiming interest and indicating a problem (2 times), and by referring to a standard procedure once. EATAWs claimed centrality by indicating the importance of the issue to be dealt with, using the similar lexical items, as seen in the excerpt below:

“...Critical thinking has received *increasing* attention as an educational goal. Critical thinking refers to...” (From EATAWs, Italics added).

Unlike their peers, TATAWs claimed centrality in only two ways: by indicating interest (3 out of 4) and by indicating importance once. Similar to AAWs and EATAWs, TATAWs indicated interest using similar lexical items. Unlike their different preferences in claiming centrality, they all attributed almost equal importance to statements about knowledge and statements about phenomenon to make topic generalizations. The groups made topic generalization through statements about knowledge 50 percent and statements about phenomenon 50 percent, whereas EATAWs relied on statements about knowledge 55 percent to make topic generalization.

The *Move Establishing a niche*, which aims to turn the niche established in *Move 2* into the research space that justifies the present article, was employed the least. As it is the case with

Table 5: Frequency and distribution of moves in the introduction section of the abstracts in percentages

	AAWs	EATAWs	TATAWs
<i>Move 1— Establishing a Territory</i>	43	18	20
Step1— Claiming centrality	20	9	4
Step2— Making topic generalizations	20	9	15
Step3— Reviewing items of previous res.	3	-	1
<i>Move 2— Establishing a Niche</i>	40	2	1
Step1A— Counter-claiming	6	-	-
Step1B— Indicating a gap	26	1	1
Step1C— Question-raising	2	1	-
Step1D— Continuing a tradition	6	-	-
<i>Move 3— Occupying the Niche</i>	100	100	99
Step1A— Outlining purposes	99	100	99
Step1B— Announcing present research	-	-	-
Step2— Announcing principal findings	-	-	-

Establishing a territory, *Establishing a niche* is present in 40 percent of the AAAs. The most pervasive step through which move 2 is realized in AAAs is step 2-that of *gap signaling* (26 times) followed by counter-claiming and continuing a tradition (6 times) each. Gap indications, according to Swales (2011), have two functions: 'to signal that the essentially summarizing reportage of *Move 2* has come to an end and to evaluate previous research in the light of the present author's topic or purpose as pre-announced in the title'. After building a sound background to his argument, the author underlines the gap in previous research as seen in the following excerpt:

"...Researchers, policymakers, practitioners, and parents have assumed a positive relationship between school attendance and academic success. And yet, among the vast body of empirical research examining how input factors relate to academic outcomes, *few investigations have honed in on the precision of the relationship between individual attendance and student achievement*. The purpose of this paper is to provide insight..." (From AAAs, Italics added).

In indicating gaps in previous research, AAAs usually used lexical items to underline what previous research lacks. They also made counter claims to serve the same goal. This move is almost non-existent in abstracts by TAWs, be these abstracts-Turkish or English. Only in two cases did the AAAs prefer to continue a tradition to establish a niche. EATAWs indicated a gap in just one case and raised a question just once.

Contrary to the low employment of *Establishing a territory* and *Establishing a niche*, *Occupying the niche* through which the writers introduce their studies is present in all the abstracts. This move was realized primarily through *Outlining purposes*. Only in very few cases, did the AAAs and EATAWs indicate their RA structure to occupy the niche. Despite this intergroup regularity, subtle divergences were seen in the constituent parts of this step. AAAs used what Swales (2011) describes the 'ontological move' in 89 percent of cases, using 'descriptive language' as labeled by Bittencourt dos Santos (1996) to occupy the niche by outlining the purpose of their studies as seen below:

"...*This study* examined 21 pre-service secondary teachers as they engaged in activities

aimed at fostering an understanding of the epistemic roles that model, theory, and argument play in scientific inquiry..." (From AAAs, Italics added)

Only in eight cases did they employ 'teleological moves' to serve the same purpose. Further analysis of the 'ontological move' use by AAAs indicates consistency in the use of the words in the subject position.

In contrast to AAAs, both EATAWs and TATAWs mostly employed the 'teleological move', 63 percent and 76 percent respectively, using 'purposive language' to express their purpose. The purposive metadiscoursal statements which EATAWs and TATAWs employed overtly mark the goal or purpose of research as seen in the excerpt below:

"...The *purpose* of this study was to analyze high school peer mediator students' experiences related to mediation process through their perspectives. The study was conducted..." (From EATAWs, Italics added).

The motive behind Turkish academic writers' overreliance on 'teleological moves' using purposive language could be a strategy for playing safe in using English. Employing teleological moves is not only a face saving-act, but it also boosts writers' confidence. What is noteworthy is that, AAAs used the word 'author(s)' in the subject position almost in half of their ontological moves (40 times out of 89) as seen below:

"...Writing development involves changes that occur in children's strategic behavior, knowledge, and motivation. *The authors* examined the effectiveness of self-regulated strategy development (SRSD), a strategy instructional model designed to promote development in each of these areas..." (From AAAs, Italics added).

They also used the personal pronouns for the same purpose. In eight cases, they employed teleological moves-nominals-to occupy the niche to outline the purpose of their studies. Overall, it seems that they preferred simple past (27 out of 39) with an animate subject. They also used simple present and simple past equally with an inanimate subject.

Contrary to AAAs, EATAWs employed 'teleological move', to the extent of 63 percent, to occupy the niche by outlining the purpose of their studies. Further analysis of this move shows that EATAWs preferred nominal phrases (47) to verbal ones (16). They relied mostly on the same words, using simple past tense and simple present

almost equally. This overreliance on the same word is also seen in their employment of teleological moves through verbal phrases. In 22 cases EATAWs used ontological moves to occupy the niche as seen below:

“...The *purpose* of this study was to analyze high school peer mediator students’ experiences related to mediation process through their perspectives. The study was conducted...” (From EATAWs, Italics added)

As is the case with their nominal phrases, the same words were used. Unlike their AAWs, EATAWs used passive voice 15 percent to occupy the niche. As they preferred their study to speak for itself, only in two cases did they use the word ‘author’ in subject position to outline their purpose.

Similarly, TATAWs preferred to occupy the niche by outlining their purposes, employing a ‘teleological move’, using ‘purposive language’. They predominantly relied on ‘teleological move’ to serve this purpose 76 percent, using nominal phrases 51 percent and verbal phrases 25 percent. In expressing teleological moves, they predominantly used the same nouns. TATAWs preferred passive structure to serve the same function, avoiding foregrounding themselves.

Description and Linguistic Realization of Move 2-Methods

With very few exceptions, the authors described their studies by giving information about subjects, procedures, materials, and the design of their studies in this move. The frequency of this rhetorical move is very close in all of the abstracts. As it occurs 100 percent in AAWs, 100 percent in EATAWs, and 98 percent in TATAWs, it is an obligatory move, which supports Bittencourt dos Santos’s (1996) and Pho’s (2008) findings. Most of the subjects in the *Methods* move belong to Class 1-Objects of research and their attributes, with the type of the study, participants, and data collection means being the most frequently mentioned features. In addition to employing objectivized subjects, this move included passive construction the most, creating an impersonal tone. The impersonal tone of this move was strengthened even further by the absence of first-person pronouns, their derivative forms, or any hedging device. Together with objectivized subject and passive use, the uniform employment of past tense characterized this move. Contrary to EATAWs’ and TATAWs’ pref-

erence for impersonal voice, AAWs preferred to underline writer presence in the process in 15 cases. Overall, the *Methods* sections of the abstracts by TAWs, be it English or Turkish, bear great similarity to AAWs’. Turkish academic writers’ avoidance of referring to themselves seems to be related to their understanding of academic writing as objective and free from personal tone, which is related to Turkish proclivity to using the passive, in contrast to modern English, which favors actives with clear subjects.

Description and Linguistic Realization of Move 3-Results

The frequency of this rhetorical move is quite close in all the abstracts. Almost all the abstracts included it, as writers made new knowledge claims by reporting their main findings through this move. AAWs secured this move in 98 percent of abstracts while AATAWs had it with a 96 percent. 98 percent of TATAWs included this move. In most cases, this move briefly summarized the main results and was mostly initiated with subjects to refer to writer’s own work or micro-research outcome in subject position as seen below:

“...The *results indicated* positive efficacy beliefs expressed by the most of the pre-service teachers regarding their ability to teach biology...” (From EATAWs, Italics added)

Further analysis of the linguistic realization of this move reveals some subtle differences. For one thing, AAWs presented their results either announcing this move 60 percent or directly presenting their results 24 percent. Despite the predominant use of the past tense in the realization of this move, AAWs also preferred present simple for the same purpose. In contrast to the common impersonal tone, AAWs also preferred to underline their presence.

Like AAWs, EATAWs presented their results either by announcing this move or by directly stating the results. They explicitly used the same words such as ‘results’ in subject positions. However, EATAWs relied on announcing this move more 79 percent and were less abrupt in announcing their results 14 percent. Despite the common use of past simple, they also used present simple 28 percent. One noteworthy finding is that only in just one instance did EATAWs prefer to underline their presence in the process.

Similar to AAWs and EATAWs, the dominant syntactic structure in the *Results* move of

TATAWs is the use of noun clauses with *that*-complement clauses, following a reporting verb. TATAWs preferred to introduce their results with a prefacing statement or directly presenting them. One striking finding regarding the common verbs found in the realization of this move is the use the verb 'reveal' in EATAWs, used in more than 25 percent of the EATAWs. The distribution of the use of the tenses is also quite similar. AAAs tended to prefer the past tense 65 percent to the present simple 35 percent in reporting their findings. EATAWs preferred the past tense even more 73 percent. The use of the past tense in reporting findings denotes the impression that the writer is objective and is plainly reporting the findings of the research. Nevertheless, it is impossible to talk about a uniform use of the past tense across the abstracts. Surprisingly, the use of the passive to realize this move was rare in both AAAs and EATAWs, only two of AAAs and ten of the EATAWs included it in reporting the findings. However, 42 percent of TATAWs employed the passive to report the results. 58 percent of the TATAWs preferred words to refer to their own work.

Description and Linguistic Realization of Move 4-Conclusions

In this move, authors finalize their claims, offering suggestions and linking the current study with the real world. The frequency of this move displayed divergence across. 56 percent of the AAAs included it, whereas only 33 percent of the EATAWs and 45 percent of TATAWs employed it. Besides the differences in the frequency distribution of this move, subtle dissimilarities can be seen with respect to the constituents of this move, as can be seen in Table 6.

Table 6: Move 4-Conclusions in percentages

Moves	AAAs	EATAWs	TATAWs
Discussion/conclusion	25	18	22
Implications	15	5	3
Recommendations	14	10	20
Total	56	33	45

Discussion and Conclusion

In stating conclusions, AAAs relied heavily on inanimate subjects, 19 cases out of 25, to underline their preferences for their studies to speak for themselves. This impersonal stance was strengthened with the use of passive voice with

an inanimate subject in 6 cases. Still, in 9 instances, they employed self-mention words in the subject position to highlight writer involvement in the process as seen below:

"...The *author* concludes that White and African American students in predominantly Black, particularly urban, schools are significantly disadvantaged at each point of the learning process compared to students in other school types..." (From an AAA, Italics added).

In presenting their conclusions, AAAs mostly preferred the present tense. EATAWs stated their conclusions a little less than their American counterparts. However, EATAWs used only inanimate subjects in stating their conclusions to have an impersonal voice in expressing their conclusions. This impersonal stance was strengthened by the use of passive constructions.

TATAWs' employment of this move bears some similarities as well as some differences with that of AAAs and EATAWs. For one thing, they employed this move less than AAAs and more than EATAWs. Another divergence from EATAWs is that TATAWs preferred to explicitly state their conclusions in 17 instances out of 22 cases. In the remaining 5 cases, they stated what was done regarding the discussions. They heavily relied on passive constructions 77 percent in stating their conclusions. This impersonal stance was intensified by their use of inanimate nouns in 5 cases. Another observation is that they used the same word and phrase in 16 cases to explicitly state their conclusions.

Implications

As the Implications move is optional, very few authors included it in their abstracts. 15 percent of the AAAs stated implications of their studies. Almost two-thirds of these statements are announcements of forthcoming implications. Three of these advanced organizers have an animate subject. The remaining 6 percent preferred to state their implications explicitly. Only 5 of the EATAWs stated the implications of their studies. One fifth of them preferred to do so explicitly while the remaining ones realized this move as the announcement of the forthcoming implications as seen in the following excerpt:

"...These behaviors are explained and *some implications for teaching are discussed in the paper...*" (From an EATAW, Italics added)

Another uniformity can be seen in the exclusive use of inanimate subject in subject position. TATAWs employed this sub-move a lot less than AAWs, like EATAWs. In only two cases, they expressed their statements using animate subjects in subject position. Encouraging the interested reader to go and look at the relevant part in the RA could be the motive behind this strategy.

Recommendations and Suggestions

In expressing recommendations, AAWs preferred to state their recommendations explicitly (11 cases out of 14). In doing so, they employed an inanimate subject in ten cases. In four cases, they used self-mention words to highlight their presence. In two cases, AAWs preferred to state the value and contribution of their studies. Similarly, EATAWs stated their recommendations and suggestions, less though. Another slight difference lies in how they expressed their recommendations: they preferred to employ this rhetorical sub-move only by announcing their forthcoming recommendations, which were expressed only in passive constructions. However, TATAWs employed this sub-move more than the other groups, especially much more than EATAWs. Also, all of these rhetorical sub-moves serve as suggestions. 11 of these suggestions, expressed in passive constructions (which accounted for 14 out of 20 abstracts), were announcements of forthcoming suggestions.

DISCUSSION

This paper on the rhetorical structure of RAAs by American and Turkish academicians was conducted to investigate to what extent these abstracts conform to the rhetorical structure of RAAs. Taken together, the rhetorical structure of English RAAs by the two groups generally reflects the rhetorical structure of RAA models: BPMRC- suggested by Swales and Feak (2009) and CARS by Swales (1990).

Almost all of the abstracts (AAWs, 98 percent, EATAWs 97 percent, and TATAWs 100 percent) included the sequence of moves in the same order as indicated in the linear fashion. In addition to this, they appear similar that they seem to display almost exactly the same frequency of employment of the three moves- Presenting research, Methods, and Results. Over 96 per-

cent of all the abstracts included these three moves. An in-depth analysis of the first two moves, *Background* and *Presenting research*, has revealed that almost all of the abstracts included *Occupying the niche* move 99 percent. In doing this, they heavily relied on *Outlining purposes*. Another common feature was seen in the employment of *Discussion*, since all the abstracts employed it in close percentages. While the commonality with respect to the presence of the major moves of RAAs seems to outweigh divergences, it should be underscored in passing that several differences were found in the employment of some major moves, and especially in the constituents of some moves and their linguistic realizations. Turning to the similarities between the three groups, we can say that TAWs have adopted North American abstract writing conventions and may have been influenced to some extent by the global use of English, which has been underscored by scholars such as Moreno (2010), Pennycook (1994), Reguant and Casadella (1994), and Tardy (2004). TAWs' awareness and espousal of North American academic abstract writing conventions in their works, despite their diverse intellectual, educational, linguistic, and cultural backgrounds could partly be attributed to the influence of North American academic writing conventions on English academic writing across the world, including on Turkish academic writing and writers. It shows that the norms of academic writing are set by the Anglo Saxon academic community, and anyone who wants to publish in a US or UK based journal has to comply with these norms. Difference is not tolerated (Bennet 2013.)

With regards to differences, a number of important dissimilarities were observed. For one thing, while almost half of the AAWs preferred to include the five moves (BPMRC), less than one quarter of EATAWs and TATAWs had all of the five moves. Moreover, almost 25 percent of both EATAWs and TATAWs included just three moves. Another variation is the importance attached to situating the research in the *Background* move. Though this move was found in almost half of the AAWs, less than one fourth of the abstracts by TAWs included it. This move, most probably because of its complexity (Swales 1990), was found to be the least common. An in-depth analysis of this move displayed another interesting observation, which Yakhontova's (2002) labels 'selling' versus 'telling'. Many

AAAWs employed some sort of presentational element, which was rare in EATAWs and TATAWs. This 'selling' feature was widely employed by AAWs. This promotional feature of RAAs, according to Berkenkotter and Huckin (1995: 43) is an emerging importance attached to the selling dimension through which scientists promote their own work to a degree never seen before. In emphasizing the rationale behind the common espousal of this 'selling' feature by scholars, Hyland (2000) underlines that research writers in English have been increasingly using promotional elements in their abstracts because of the competitive pressure of their discourse communities. The promotionalism found in AAWs and the absence of any self-advertisement in EATAWs and TATAWs could be attributed to the presence or absence of the influence of a market society with its constant demands for competitiveness in academic spheres. This has got more to do with the specific differences between the academic worlds in the USA and Turkey. In the USA, 'publish or perish' is the bottom line, and these days academics not only have to publish a lot but they also have to publish in the right journals with high impact. This system has not taken over in Turkey yet.

Yet, another variation between AAWs and EATAWs and TATAWs lies in their way of presenting their research. AAWs showed a tendency to employ the 'ontological move' as labeled by Swales and Feak (2009), using 'descriptive language' as described by Bittencourt dos Santos (1996) to present their studies, whereas both EATAWs and TATAWs resorted to the 'teleological move', using 'purposive language', to serve the same goal. Cultural background seems to have an impact on this choice, since TAWs relied heavily on 'teleological move' both in English and Turkish abstracts. This preference may be their feeling safe playing within the boundaries of common practice. It may also be related to Turkish culture's difference from Western culture in placing less emphasis on individualism, foregrounding individuals.

Moreover, both EATAWs and TATAWs attached a lot less importance to *Establishing a territory* and *Establishing a niche*. What seems even more striking is that neither EATAWs nor TATAWs employed *Establishing a niche* by indicating a gap in previous studies, while one quarter of the AAWs realized this move by highlighting gaps in previous studies. EATAWs'

and TATAWs' avoidance of underlining the merits of their research and shortcomings of previous studies might be that they are operating within a relatively smaller discourse community, in which there may be less pressure to 'justify, defend, and sell' research (Yakhontova 2002). Their avoidance of indicating gaps in previous studies could also be related to maintaining their strong feelings of solidarity with their local research community (Taylor and Chen 1991). In their comparative paper on RA introductions by American and Chinese writers, Taylor and Chen (1991) found that contrary to American writers, Chinese scholars are not comfortable identifying gaps and shortcomings in previous research.

A similar rationale for the avoidance of this rhetorical move by academicians belonging to relatively smaller communities was suggested by Rezende and Hemais (2004), who show that Brazilian writers' avoidance of *Establishing a niche* for their research may be that doing so might underscore a state of ignorance on the part of their discourse community. Considering the relative smallness of the Turkish academic discourse community and the prevalent misconception regarding critiquing previous studies, this explanation seems very plausible, especially for TAWs. This high ratio of the absence of *Move 2* from EATAWs and TATAWs could also be due to socio-cultural reasons. It appears that some members of the Turkish scientific community view indicating gaps in previous studies unconventional since they may deem it as a sort of criticism leveled at their colleagues. This avoidance might also be closely related to writers' conception of 'respect to their scientific community' and to a desire not to look condescending. As is rightly described by Hofstede (2015), Turkish society is a collectivist society, where groups such as the 'nation' and academic community would be more influential in shaping behavior, as contrasted to the ultra individualistic US.

Tentatively, it can be speculated that TAWs' conception of respect to their respective discourse communities and their wish not to be too assuming makes it undesirable for them to establish a niche. Nevertheless, the same rhetorical strategy seems to be quite frequent among AAWs, maybe because of the competition to justify and publish their work.

Similarly, AAWs attached more importance to *Conclusion* move, although this variation between the percentages of moves by AAWs

is not that high compared with that of EATAWs' and TATAWs'. While over 96 percent of the EATAWs included *Presenting research, Methods*, and *Results* moves, only 33 percent of them had *Conclusion* move. Moreover, only 18 percent of them employed *Background* move. A similar variation was also observed in TATAWs. While 45 percent of the TATAWs had a *Conclusion* move, only 20 percent of them contained *Background* move. Another similar variation in EATAWs and TATAWs lies in their employment of the sub-moves of the *Conclusion* move. While AAWs displayed uniformity in their employment of the three sub-moves of the *Conclusion* move, both EATAWs and TATAWs displayed an even heavy reliance on certain sub-moves. Given these observations, we could say that EATAWs and TATAWs look like what Graetz (1985), Day (1988), Jordan (1991) and Ventola (1994) describe as 'indicative' abstracts, whereas AAWs could be described as 'informative' abstracts. With these findings at hand, the textual organization of EATAWs and TATAWs, with a more restricted repertoire of moves and steps, looks more predictable and less complex than that of AAWs. This observation concurs with Sheldon's 2011 finding that RA introductions by Spanish writers were more predictable and less complex compared to those of introductions by L1 English writers.

In addition to these diverging rhetorical structures of RAAs, another noteworthy discrepancy was noted in the linguistic realization of some moves and sub-moves. While EATAWs and TATAWs preferred an impersonal tone, avoiding 'personal authorial reference' to refer to themselves, AAWs emphasized their presence, employing self mention words. EATAWs and TATAWs were characterized by passive constructions and active constructions exclusively with inanimate subjects/meta-textual expressions. This variation, as (Molino 2010) suggests, could be due to the adoption of differing interpersonal strategies, subjectivity or objectivity, within these two academic discourse communities, and the dissimilar incidence of particular discourse functions and sub-functions, which ultimately have an impact on the rate of occurrence of personal and impersonal authorial references. The roots of this common diffidence could also be related to the widespread notion that academic writing is impersonal, with the underlining assumption

that "academic persuasion is essentially an issue of accommodation, and that humility, towards one's peers, one's reviewers, or the discipline in general, represents the best means of gaining acceptance of one's claims" (Hyland 2001: 209).

In the same vein, the objectivity of scholarly writing has been challenged by Bazerman (1984), Myers (1990), and Hunston (1994). Contrary to the commonly held view that academic writing should have an impersonal tone, some studies state that self-representation in academic papers may differ according to the authors' cultural background (Flottum 2003; Mauranen 1993; Vassileva 2000). The determinant role of cultural background on writer visibility in academic writing has also been highlighted by Flottum (2003), who underlines that it has to do with cultural expectations as to what constitutes appropriate formal academic style, particularly with regard to how an author is expected to refer to herself or himself. In explaining AAWs' employment of self-reference a lot more than their Spanish counterparts, Duenas (2007) puts forward that this has got to do with competitiveness among American scholars. Academic writers, especially those belonging to large discourse communities, need to establish their credentials and present themselves as original contributors to their respective discipline community, which can be achieved using self-mentioning features (Duenas 2007).

CONCLUSION

This paper on the rhetorical structure of RAAs by American and Turkish academicians has shown that the rhetorical structure of English RAAs by the two groups generally reflects the rhetorical structure of RAA models: -BPMRC- and CARS.

Overall, the results of this paper lead us to the recognition of inter and intra-cultural variation of RAA writing. Given the similarities and differences between AAWs, TATAWs, and EATAWs, we can conclude that abstracts by TAWs seem to conform with North American abstract writing conventions to a great extent. With this in mind, we can safely say that the rhetorical structure of Turkish RAAs is similar to that of the rhetorical structure of North American RAAs. This finding supports the view that abstracts follow the conventions of its genre regardless of the language it is written in.

However, the similarities between English and Turkish abstracts by TAWs in their rare employment of two moves (*Background* and *Conclusion*), their idiosyncratic preferences in the linguistic realization of some moves, and the divergences of abstracts by these two groups by abstracts by their American counterparts also lead us to conclude that TAWs show a noteworthy commonality and homogeneity, transcending linguistic difference. While following English academic rhetorical patterns in abstract writing, they also prefer to remain faithful to their local discourse conventions. It seems that cultural proclivity is also important for TAWs in forming the rhetorical and linguistic structure of RAAs. This homogeneity could be because of the relatively smallness of Turkish academic discourse community. In such a small discourse community, TAWs may well take previous abstracts as models to play safe. The fact that EATAWs and TATAWs' have more similarities than differences could be ascribed to the possibility that Turkish writers may transfer their L1 academic writing strategies to English or vice versa. Yet, it also sounds fitting to view AAWs, EATAWs, and TATAWs in their own contexts and circumstances independent of each other, keeping the similarities and differences in mind. It is also plausible that EATAWs still hold on to their past experience of writing in Turkish, maintaining similar, if not the same, structure, strategies, and approach because those are the conventions their readers expect of them.

In contrast to the widely-held assumption that abstracts are impersonal, this paper suggests that authorial stance does exist in abstracts, although the degree of the writer's involvement varies from group to group and from move to move. As we have seen, the writer's voice was expressed through the use of stance words and first-person pronouns in *Background* and *Conclusions* move. On the other hand, the *Methods* and *Results* moves were characterized by a lack of first-person pronouns, modal verbs and stance words, and are a lot more impersonal.

RECOMMENDATIONS

Given the limitations, it would be wise to conduct more comprehensive research on this genre to fully grasp the breadth and depth of the issue.

Given the importance of corpus-based research findings for academic writing, we can say that the findings of this descriptive paper have some pedagogical implications for academic writing materials developers and policy makers. Together with the findings of similar studies on RAA writing, the findings of this paper could be employed in EAP courses and academic writing courses for graduates and post-graduates. In order to fully prepare graduate and postgraduate students for publication in their respective fields, rhetorical and linguistic conventions of RAA writing could well be incorporated into academic writing courses. This is important especially for those who aim to seek global recognition and gain accreditation by gatekeepers through publication in leading international journals. Right at this juncture comes into play the role of the RAAs as a gateway to publication which could lead readers to take up an article, journals to select contributions, or organizers of conferences to accept or reject papers. Add to this the incontestable place and role of North American academic writing conventions, the importance of following these conventions becomes much clearer. Therefore, rhetorical and linguistic features of RAAs driven from corpus-based studies could be included in academic writing courses. In such courses, students' awareness regarding the rhetorical organization and linguistic realizations of these structures could be increased. Students could be trained as ethnographers of academic writing, especially in their field of study.

LIMITATIONS

This exploratory paper investigated RAAs in English and Turkish by American and TAWs. As such, the findings reported here only reflect the rhetorical organization identified in this particular corpora. Therefore, it is of course virtually impossible to make broad generalizations. Undoubtedly, much more data and research is needed to fully grasp this issue. Larger studies investigating more RAAs by American and TAWs from different academic fields are necessary to verify the findings.

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