A Cross-disciplinary Genre Analysis of Rhetorical Features of Research Article Introductions Written by Iranians

Farzad Salahshoor [a]

Assistant Professor, Azarbaijan Shahid Madani University

Mahnaz Sharifi [b]

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Abstract

The notion of genre has received a great deal of attention both in discourse analytic studies as well as in the field of ESP/EAP course design. The present paper has attempted to use genre analysis to account for the rhetorical features of research article introductions written by Iranian academics in two disciplinary fields of Education and Economics. The corpus comprised 40 research article introductions (20 from Education, 20 from Economics fields). Applying John Swales' (1990) CARS model and based on the notions of generic *move*, and *step*, our analysis showed a high degree of compatibility between our data and Swales' model. The only marked difference was that the frequencies of occurrence of moves 1 and 2 were significantly higher than that of move 3. Some minor differences were also identified and discussed. The findings may be of some value both to

[a] Email: farzad.salahshoor@gmail.com
[b] E-mail: mahnaz_sharifi82@yahoo.com

contrastive rhetorical studies and genre analytic studies. They may also be practically useful for EAP syllabus designers in developing genre-oriented EAP material, and EAP teachers in postgraduate courses aiming at developing academic writing skills.

Key words: *academic discourse, genre analysis, move structure*

Introduction

Studying academic discourse has recently been the centre of research interest. On the one hand, it enables us to know something about the underlying processes that shape academic discourse, and in this way to deepen our understanding of how language works in general. On the other hand, its appeal allows us learn about how language works in particular settings, about the conventions, expectations, norms and values observed in particular discourse communities, and how these underlying forces contribute to the configuration of language at surface, a process usually called 'textualization'.

But knowledge thus gained is not and should not be confined to theoretical domain. Knowledge of academic discourses may prove to have practical value, for instance, in contexts where the academic community is young and needs to familiarize itself with the norms and values of more established academic communities in order to be able to produce and publish local made knowledge in wider scientific circles (Salahshoor, 2000).

Given this, in recent decades, large efforts have been made in exploring academic discourse. Early attempts (Barber, 1962; Halliday, et al., 1964) took place within a model called, register studies, by the advocates of systemic functional linguistics. According to Halliday (1989), the most observable thing about language use is variation, which can be due to factors relating to language user or language use. He refers to the first as 'dialect', and to the second as 'register'. The notion of register was defined as variation in language use according to variation in situation (Halliday, McIntosh, & Strevens, 1964, p.77). What this means is that due to different configurations of contextual factors, language users choose different lexico-grammatical choices from the potential choices that the language system

offers. Thus, an academic text is distinguished from other texts, e.g. a political text simply in terms of the choices it makes at lexico-syntactical level.

However, as Widdowson (1979, p.55) has rightly argued, the notion of register, despite its usefulness at surface analysis of textual properties can reveal very little about the underlying process or processes which determine the choices made at the textual level. This level of investigation, in his view, is the property of discourse and not register.

This criticism by Widdowson called for a "thicker" (Bhatia, 1991, p.155) description, a study of language that seeks for explanation, in addition to description, by relating the linguistic choices to contextual factors. The early attempts such as Selinker, et al. (1973) made some efforts to provide more deeper analysis by relating lexico-grammatical choices to underlying rhetorical functions, but it was with the works of Swales (1981, 1990) and Bhatia (1993) that a solid theoretical framework emerged. Two key concepts are central in this approach: The concept of discourse community and the concept of genre. Contrasting the the former notgion with an earlier notion of 'speech community' used by Labov (1966), and Hymes (1974), Swales (1990) sets six defining characteristics for the former as outlined in the following:

- A discourse community has a broadly agreed set of common goals.

- A discourse community has mechanisms of intercommunication among its members.

- A discourse community uses its participatory mechanisms primarily to provide information and feedback.

- A discourse community utilizes and hence possesses one or more genres in the communicative furtherance of its aims.

- In addition to owning genres, a discourse community has acquired some specific lexis.

- A discourse community has a threshold level of members with a suitable degree of relevant content and discoursal expertise.

Swales (1990, pp. 24-27)

By such expounding on the concept of discourse community Swales (1990) was able to pave the ground for the introduction of the second key concept, the concept of 'genre'. Members of a discourse community possess and employ certain discourses as means of communication within the community. These discourses, or in Swales' term genres, help members pursue the common goals of the community. A genre is then defined as:

A genre comprises a class of communicative events, the members of which share some of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style.

<div align="right">(Swales, 1990, p. 58)</div>

Based on these two concepts, a theoretical framework is established to study community related discourses, or genres. Swales (1990) has triggered one such trend by focusing on the genres used in academic discourse communities. A distinction has been made between two sets of such genres: research genres, and pedagogic genres (Salahshoor 2000, p.146). The first refers to intercommunication among expert members with the aim of contribution to scientific knowledge. Research articles, dissertations and conference papers fall in this category. Pedagogic genres, on the other hand, are those genres that connect expert members to new members and aim at educating the latter into the epistemic norms and expectations of the former. Lectures, textbooks, and exam papers are examples of this second category (ibid.).

Within this conceptual framework, Swales (1981) himself, studied the genre of research article introduction across three different academic disciplines. His initial model suggested a four-move pattern in the structure of research article introductions. However, due to criticism by Crooks (1986), a revised version (Swales, 1990) with a three-move pattern replaced the early model as illustrated in the following:

Move 1: Establishing a Territory

Step 1: claiming centrality   and/or

Step 2: making topic generalization   and/or

Step 3: reviewing items of previous research

Move 2: Establishing a Niche

Step 1A: counter-claiming   or
Step 1B: indicating a cap   or
Step 1C: question raising   or
Step 1D: continuing a tradition

Move 3: Occupying the Niche

Step 1A: outlining purposes
Step 1B: announcing present research
Step 2: announcing principal findings
Step 3: indicating research article structure

Swales (1990, p. 141)

This model has fostered an array of studies on various academic genres since 1990. Early studies were mostly on the academic genres in English speaking world. Then, gradually, the focus has shifted, particularly in non-English speaking contexts, towards more contrastive studies. Most of studies in this trend have implied a socio-cultural dimension to the organizational patterns in genres. To mention a few, for instance, Fakhri (2004, 2009) investigated the rhetorical structure of research article introductions written in Arabic. His findings suggest that Arabic introductions do not normally share the same move structure with those written in English. In a similar vein, Paltridge (2006) emphasized the influence of socio-cultural contexts in the configuration of organizational patterns in particular genres. Comparing research articles in Brazilian Portuguese and English, Hirano (2009) reported that introductions written in Brazilian Portuguese follow a different pattern from that of Swales' *Creating A Research Space* (CARS) model. And finally, Loi's study (2010), which compared research article introductions written in English and Chinese, revealed significant difference in terms of the number and order of

moves and steps employed by Chinese writers from the CARS model. More studies of this kind, i.e. comparing genres across different cultures, can shed more light on cross-cultural understanding and expectations of academic communities on the subject of academic discourses.

Research questions

In line with this need, the current study aimed at analyzing research article introductions written in Farsi, to address two specific questions:

1. Is the schematic structure of the introduction section of research articles written in Persian compatible with Swales' CARS model?

2. Are there any cross-disciplinary differences in the introduction section of research articles written in Persian?

Method

In the following two sections, description of the data selected for analysis, and the analytic model and procedure employed in the study have been briefly described.

The corpus selected for analysis in this study consisted of 40 research articles selected randomly from several academic journals in two disciplines of Education (EDU) and Economics (ECO). For the purpose of having a reasonable degree of reliability, the articles were chosen from various authors to avoid idiosyncratic influences. All articles appeared in Iranian journals published in 2007 and onwards. The language of all these articles was Persian, the official language of Iran.

The analysis focused on the introduction section of the articles. The model used for the analysis and comparison was Swales' (1990) CARS model. After several round of analyses, organizational structures were identified and coded by both authors. The final outcome is presented in the following section.

Results and Discussion

The analysis of the introduction sections of the 40 RA's in Persian is reported in the following sections. First, a quantititative distribution and

frequency of the moves in the two groups (Education and Economics) of introductions were obtained, as displayed in Table 1 (for a detailed count of each individual RA, see Appendix A).

Table 1

The frequency of occurrence of moves in the Persian RA introductions

MOVES	Research Article Disciplines					
	EDU		ECO		TOTAL	
	N=20	%	N=20	%	N=40	%
Move 1	20	100%	20	100%	40	100%
Move 2	19	95%	19	95%	38	95%
Move 3	17	85%	18	90%	35	87.5%

As Table 1 clearly indicates, move 1 (establishing territory) was invariably present in all the 40 research article introductions, suggesting that the use of move 1 is considered obligatory for Iranian writers in their introductions. This also indicates awareness of Iranian scholars of the necessity to pave the ground for the reader by establishing their area of research and activating the appropriate reader background knowledge about the intended research topic.

Regarding Move 2 (establishing a niche), our data showed that the majority (95 %) of RA introductions, with the exception of two, have used this move. One possible explanation is that although the importance of this rhetorical move is known to most Iranian writer, a small minority do not find it as an obligatory move in their writings.

When it comes to Move 3 (occupying the niche), we have a slightly different situation, where the use of Move 3 is less frequent than the other two moves. What this may suggest is a lower degree of awareness among some Iranian researchers of the need to use the available discourse space to occupy the territory and inform the reader of the purpose of their studies.

Table 1 also tells us that the two disciplines (Education and Economics) studied here employed relatively equal number of the three moves in the introduction sections of the research articles. This means that the RA introduction sections in the two disciplines may be belonging to the same

category from the macro text structural point of view. This finding is consistent with Swales' (1990) claim that all the three moves are common to all academic disciplines, though difference may be observed regarding the steps that these moves are realized in.

Frequency of steps in Move 1 (establishing territory)

The frequency of occurrence of the three stops of Move 1 in the current study has been shown in Table 2. (See Appendix A for further detail).

Table 2
The frequency of steps in Move 1

Steps in Move 1	EDU		ECO		Total & %
	N=20	%	N=20	%	
Step 1	19	95%	19	95%	38 (95%)
Step 2	17	85%	16	80%	33 (82.5%)
Step 3	17	85%	8	40%	25 (62.5)

As indicated in Table 2, step 1 (claiming centrality) is the most frequently (38, 95%) used step by Iranian RA writers in the data of this study, implying a high degree of awareness among Iranian researchers on the importance of this micro structure in Move 1 of RA introductions.

The next frequently used step in the data was step 2 (making topic generalization) with a frequency count of 33 (82.5%). In this step, the writer is providing readers with some general statements about the topical area that act upon the readers' background knowledge which in return can assist them in processing the text.

Table 2 also shows that 25 (62.5%) of the RAs in the corpus include a step 3 (reviewing items of previous research), while 15 (37.5%) of them did not have this step. This absence in more than 37% of the articles may be due to some Iranian writers (this was particularly true with articles in the filed of Economics) lack of access to the relevant literature or lack of awarness that review of literature is an essential part of research articles.

In addition, RA introductions in both Education and Economics disciplines employed an equal number of steps 1 and 2 (claiming centrality

and making topic generalizations). However, use of step 3 (reviewing previous research) in EDU (17, 85%) was far more frequent that its use in ECO (8, 40%). There may be two reasons for this incompatibility between the two fields. One possible explantion may be that academics in Education departments have higher degree of familiarity with the conventions of research genres than their counterparts in Economics departments. The second explantion can be postulated in terms of a possible difference in the nature of research in Economics as distinct from other fields. That is to say, it is not part of research conventions in Economics to review previous research as an obligatory step in the introduction sections of research articles. Both explantions are speculative and need to be substantiated by further research.

Frequency of Steps in Move 2 (establishing a niche)

The frequency of occurrence of steps in Move 2 in the two groups of texts, EDU and ECO, has been shown in Table 3. (For a detailed information on the frequency of the steps in each discipline see Appendix A).

Table 3
The frequency of occurrence of steps in Move 2

Steps in Move 2	EDU		ECO		Total
	N=20	%	N= 20	%	N= 40 %
Step 1A	6	30%	5	25%	11 (27%)
Step 1B	11	55%	6	30%	17 (42.5%)
Step 1C	4	20%	3	15%	7 (17.5%)
Step 1D	12	60%	17	85%	29 (72.5%)

The most widely employed step for establishing a niche in the current data was Step 1D (continuing a tradition) with a frequency of 29 (72.5%). This shows, more than anything else, that the academic community of Iran, being a young and developing one, is not confident enough to contribute to academic knowledge by producing its own theories, and as a result more often we see scholars across various disciplines expanding outsider theories to be tested in local contexts in which they research.

Another feature noticeable in Table 3 is that 17 (42.5) of the RAs analysed in this study include a Step 1B (indicating a gap). This can, once again, be due to the respect that Iranians generally show towards written texts of any sort and the consequent lack of criticalness that is fundamentally essential for finding gap in previous research.

Table 3 also reveals that Step 1A (counter claiming) is found in only 11 (27.5%) out of 40 RAs, indicating once again that lack of criticalness is the major hindrance in the course of claiming, counter-claiming, and other aspects of academic discourse. The same can be said when we look at the use of Step 1C (question-raising), where only 7 (17.5%) uses of this step have been reported.

As regards to cross-disciplinary differences in terms of employing the four steps within Move 2, the only significant differences lie in the use of Step 1B (indicating a gap), where more such elements have been used by academics from Education Discipline in contrast to Step 1D (continuing a tradition) in the Economics field. On the contrary, step 1D (continuing a tradition) was found more (85% against 60%) in Economics RAs than Education RAs. This simply means that challenging previous literature to create research space was much easier by the writers in Education than in Economics; whereas for writers in Economics the task of creating research space was fulfilled better by extending previous research projects. A difficult question that arises here is the reason for this difference in strategy, and whether any strong generalizations can be made on the basis of this difference found in our data. Further research may shed more light on this issue.

Use of steps in Move 3 (occupying the niche)

The frequencies of occurrence of the three steps in Move 3 in RA introductions written by Iranian scholars in the fields of Education and Economics have been displayed in Table 4. (A detailed account of the frequency of these steps has been provided in Appendix A).

Table 4
The frequency of occurrence of Steps in Move 3

Steps in Move 3	EDU		ECO		Total	
	N=20	%	N=20	%	N=40	%
Step1A	10	50%	6	30%	16	40%
Step 1B	11	55%	11	55%	22	55%
Step 2	1	5%	1	5%	2	5%
Step 3	3	15%	10	50%	13	32.5%

As Table 4 shows, among the three steps of Move 3, Step 1B (announcing present research) is the most frequently used step by Persian RA writers (22, 55%). This is somewhat consistent with Swales' (1990) claim that step 1 is an obligatory element of Move 3.

The second frequently used stop is Step 1A (outlining purposes) with a frequency of 16 (40%). This suggests, more than anything else, that the importance of outlining purposes as a rhetorical step is recognized in almost half of the RA introductions written by Iranian academics.

Step 3 (indicating RA structure) was only present in 13 (32.5%) of the data. This indicates that most Iranian writers of education and economics research articles make little effort for advance organizing their readers by explicitly outlining the structure of their work in order to provide a sort of mental map in advance for the readers during their process of textual interaction.

As the least frequently used step, we had Step 2 (announcing principle findings), which according to Table 4, was employed only twice (5%). What it tells us is that, unlike RA introductions in English as analyzed by Swales (1981), RAs in Persian tend to delay the announcement of their findings until later stages.

As regards to cross disciplinary comparison, our data showed that Step 1B (announcing present research) and Step 2 (announcing principle findings) were used equally. However, some differences were noticeable in the use of other steps. Step 1A (outlining purposes), for example, was used far more frequently in Education RAs than in Economics RAs (The

frequencies were 10 or 50% and 6 or 30% respectively). Another difference, as shown in Table 4, concerned the frequency of the occurrence of Step 3 (indicating RA structure), where it was far more frequently employed in RAs in Economics than those in Education (the frequencies were 10 for Economics and 3 for Education RAs).

Conclusion

This paper tried to shed some light on the use of rhetorical strategies in RA introductions written in Persian in two disciplinary areas of Education and Economics. The main focus was on the move patters and their subservient micro rhetorical strategies, or steps. Based on the results of the study, come interesting generalizations can be made. First, that RAs written by Iranians and published in Iranian academic journals did not deviate very radically from Swales' CARS model since only two (5%) of the introductions in the sample lacked Move 2 and only five (12.5%) did not have Move 3. Secondly, however, more variation was noticeable in terms of use of micro rhetorical steps, both compared with CARS model, and also within the two disciplines of Education and Economics, which more than anything reflects the dynamic nature of the genre in question and the impact of norms and conventions associated with each of the two disciplines.

And as a final statement, it should be pointed out that genres and consequently the schematic structures of genres are the product of socio-cultural processes both in their synchronic and diachronic dimensions. Iranian academic community, unlike its more established counterparts in English speaking world, is quite young and developing, being influenced constantly in a dialectical manner by two quite often competeting sources of norms and conventions, one being the grand national culture of Iran with its deeply rooted epistemological norms overarching the young culture of higher education affiliated more with western modes of research.

Thus, it is necessary to do more research of this sort to establish a firm picture on the degree of genre awareness among Iranian academics and on the source or sources of this awareness, whether it is the local traditions or the internationally accepted norms, or a combination of both, that shape the underlying schematic knowledge of Iranian academics.

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Appendix A.

I. Education (EDU) RA Move Patterns

RA Number	Moves steps	M1			M2				M3			
		S1	S2	S3	S1A	S1B	S1C	S1D	S1A	S1B	S2	S3
1.		√	√	√	√	√		√		√		√
2.		√	√	√	√	√		√		√		
3.		√	√	√				√		√		
4.		√	√	√		√	√		√	√		
5.		√	√	√		√			√			
6.		√		√			√	√	√	√		√
7.		√	√	√	√							
8.		√		√		√			√			
9.		√		√		√	√	√				
10.		√	√	√		√		√				
11.		√	√		√					√		
12.		√	√		√			√	√			
13.		√	√	√				√	√			
14.		√	√	√		√		√	√	√		
15.		√	√	√				√	√	√		
16.		√	√	√		√						√

	S1	S2	S3	S1A	S1B	S1C	S1D	S1A	S1B	S2	S3
17.	√	√	√		√		√		√	√	
18.	√	√	√						√		
19.		√	√		√	√	√				
20.	√	√		√			√	√	√		

II. Economics (ECO) RA Move Patterns

RA Number	Moves steps	M1			M2				M3			
		S1	S2	S3	S1A	S1B	S1C	S1D	S1A	S1B	S2	S3
1.			√	√						√		√
2.		√		√				√	√			√
3.		√			√			√				
4.		√	√		√	√		√		√		
5.		√	√			√						√
6.		√	√	√		√		√		√		
7.		√	√					√	√			
8.		√	√		√	√			√			
9.		√			√	√		√		√		
10.		√	√				√	√		√	√	√
11.		√	√	√				√	√			√
12.		√	√					√		√		
13.		√	√	√				√		√		
14.		√	√					√		√		√
15.		√	√				√	√		√		
16.		√	√	√			√	√	√			√
17.		√	√					√		√		√
18.		√		√				√		√		√
19.		√	√				√	√	√			√
20.		√	√	√	√			√				

Appendix B.

List of data sources

Education Research Articles

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