Personal Pronouns in English and Persian Medical Research Articles

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Abstract

Today, author's self-mention in academic research articles is regarded as a rhetorical strategy that researchers may employ in order to represent themselves as competent members of their academic community and express their unique contribution to their discipline. In this paper, I conducted cross-linguistic study to explore the frequency and functions of exclusive first person pronoun in the whole medical research articles in English and Persian to find the similarities or differences between the two languages in this regard. To achieve this purpose, I randomly selected 45 English article from the prestigious medical journal "The Lancet" and 45 Persian medical research articles from the "Medical journal of Tehran University". The results indicated that while the plural first person pronouns occurred in both corpora, the English writers were found to make greater use of self-mentions than Persian writers do. Significant differences were also found in the distribution of the rhetorical functions the two groups of research article writers perform through the use of exclusive we and our. The most frequent first person pronoun in both corpora was "we" and the preferred function for which they were used here was "explaining the steps and procedures".

Key words: research article, cross linguistic variation, personal pronouns, functions.
Introduction

The writer's voice in academic writing is a controversial issue. Traditionally, academic writing was considered to be an objective and impersonal piece of text and writing manuals advised academic writers to avoid any self mentions, allowing the text itself to report the facts and the results on its own (Hyland, 2001). The logic behind this view was that academic writing is rather formal presentation of facts and ideas and self projection gives a subjective and informal tone to the writing. Research article writers, consequently, followed this convention to either get their papers published by showing the act of modesty and humility (Hyland, 2001) or to protect themselves against being falsified (Gilbert and Mulkay, 1984).

Recent studies, however, acknowledged that written text is an interaction between writer and reader and to increase such interaction the writers need not to remove themselves totally from the text (Cherry, 1988; Ivanic, 1998; Tang & John, 1999; Kuo, 1999; Hyland, 2001). These studies suggest that the traditional view is changing and research article is no longer considered the "faceless prose" (Hyland, 2002) as it has often thought to be and writers are gradually shifting away from impersonal writing to applying more self mention strategies and tools such as first person pronouns and possessive adjectives to communicate explicitly with their audience.

The use of personal pronouns in scientific journal articles clarifies writers’ viewpoints of their own role and their relationship with their readers as well as the scientific community (Kuo, 1999). Using personal pronouns help writers to show that they are knowledgeable and up-to-date members of that particular academic community and the text they are presenting is appropriate and reliable in which readers can easily confide. The first person pronouns, in fact, help the writers to differentiate their voice from the viewpoints of others and communicate the uniqueness of their contribution to establish commitment and credibility and develop connection with audience (Hyland, 2002).

The presence and the frequency of personal pronouns vary depending upon the writing conventions of disciplinary background within which the writer is writing (Hyland, 2001; Harwood, 2005; Lafuente Millán, 2010) and the particular culture he or she is coming from. (Vassileva, 1998; Flbøttum et. al, 2006; Martin, 2004; Mur Dueñas, 2007; Molino, 2010, Carter-Thomas & Chambers, 2012). Mur Dueñas (2007), for example, analyzed the use and distribution of self-mentions in English and Spanish business management and concluded that the frequency of self mentions in English was much higher than Spanish articles. Molino
(2010), as well, conducted a cross-cultural approach to analyze linguistics research articles in English and Italian in terms of the use of first-person subject pronouns in English and first-person inflected verbs in Italian, and the passive voice in both languages. The results showed that personal references were less frequent in Italian linguistics research articles.

Establishing effective communication between writer and reader in medicine is of great significance so experts emphasize on employing active voice and personal pronouns. Excessive use of the passive and impersonal voice may result in a complex and vague sentences that make medical research hard to understand. While previous studies on medicine confirmed the use of first person pronouns (Du et. al., 2005; Giannoni, 2008; Lafuente Millán, 2010), some medical specialists have criticized medical articles for the excessive use of passive voice and impersonal style (Amdur et. al., 2010; Skerrett, 2010). A study conducted by Dr. Amdur et. al. in the University of Florida College Of Medicine indicated that the passive voice frequency in medical writing articles was much higher than that in Wall Street Journal articles.

Since no cross-cultural analyses of personal pronouns have been conducted so far between medical research articles published in English and medical research articles published in Persian, I investigated the issue of frequency of the use of self mention and the particular function they perform in medical research articles published internationally in English and those published nationally in Persian in Iran context. In other words, I aimed at exploring the cross-linguistic variation in the frequency of the use of exclusive first person pronouns - i.e., writer's use of first person pronoun to refer to himself or herself rather than to the writer and the readers- and different functions that exclusive first person pronouns may perform in medicine research articles.

**Materials and Methods**

The corpus in my research comprises 90 medical research articles. To obtain high quality texts, I conferred with specialist informants in the discipline and they proposed two medical journals: The 45 English articles were quite randomly chosen from the prominent journal of "The Lancet" and 45 Persian articles were also randomly selected from "Medical Journal of Tehran University". The 90 randomly selected articles were full-length and consisted of four sections: Introduction, Method, Results, Discussion (I-M-R-D). Abstracts, tables, figures, quotations, and reference sections were deleted and after that the corpus consisted of nearly 400,000 words. (Table 1)
As the focus of the present study is the variations in personal pronoun use between English and Persian writers, the issue of native or non-native English writers seems to be challenging. In the process of article selection, I paid meticulous attention to the background information provided by the writers. Moreover, since all English articles had been reviewed by the English-speaking editorial board and had been published, I assumed that all the writers, being native speakers of the English or non-native, completely conformed to the rhetorical conventions of the English-speaking academic community (Martin, 2004).

While English pronouns have different forms for subjective, objective, and possessive cases, Persian pronouns are somehow the same for all cases. The first-person singular subject pronoun is *mæn* and first-person plural subject pronoun is *Mā*. Direct object pronouns are simply formed by adding the accusative enclitic *rā* to subjective pronouns: *man rā* (me), *Mā rā* (us). Indirect object pronouns are simply formed by adding *be* (which means to) to subjective pronouns: *be mæn* (me), *be mā* (us). Possession is either expressed by adding subject pronouns to the end of a noun: *ketabe mæn* (my book) *ketabe mā* (our book) or by adding bound pronouns to the nouns. Bound pronouns are dependent pronouns which must be added to the end of a noun and cannot be used on their own. English does not have any equivalent for Persian's bound personal pronouns. The first person bound pronouns are *–*am and *–emān*: Ketabam (my book) and Ketabeman (our book) (see Table 2).

Table 2. English and Persian pronouns

<table>
<thead>
<tr>
<th>Subject pronoun</th>
<th>Object pronoun</th>
<th>possessive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>singular</td>
<td>plural</td>
</tr>
<tr>
<td>English</td>
<td>I</td>
<td>we</td>
</tr>
<tr>
<td>Persian</td>
<td><em>mæn</em></td>
<td><em>mā</em></td>
</tr>
<tr>
<td></td>
<td><em>be mæn</em></td>
<td><em>be mā</em></td>
</tr>
</tbody>
</table>

To carry out the quantitative analysis, I used Microsoft word to count the frequency of all first person pronouns and possessive adjectives (*I/ mæn, me/ mæn rā*- *be mæn, my/ mæn*-...
æm, we/ mā, us/ mā rā -be mā, our/ mā -emān) in different sections of English and Persian articles and carefully examined the particular context in which each pronoun was used to make sure that it was an exclusive first person pronoun. Those cases in which the pronouns or possessive adjectives made reference to both writers and reader, i.e. inclusive references, were left out. Subsequently, the function of each pronoun was determined to develop a categorization of the extant functions in the present corpus.

**Results:**

**Frequencies of First Person Pronouns**

According to the results, no occurrence of single first person pronoun and possessive adjectives was detected in both English and Persian articles as all articles were multi-authored. First-person plural pronoun occurred in both corpora; but, their frequencies were quite different.

According to Table 3, the author’s self-mentions are much more frequent in the English corpus. The most frequent pronoun in both languages is the subject plural first person 'we' and its Persian counterpart 'mā'. The total number of 'we' in English is 939 (37.5). On the other hand, the total number of 'mā' (we) in Persian articles is 78 (5.3). Overall, there were 332 (13.3) 'our' in the English texts and there were 44 (2.9) instances of 'mā/ -emān' (our) in Persian corpus. The occurrence of 'us' was remarkably low in English 12 (0.48) and in Persian articles 3(0.2).

Table 3. Raw and normalized (×10000) frequencies of first-person pronouns:

<table>
<thead>
<tr>
<th>Pronouns</th>
<th>English</th>
<th>Persian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>raw</td>
<td>norm.</td>
</tr>
<tr>
<td>We/ Mā</td>
<td>939</td>
<td>37.8</td>
</tr>
<tr>
<td>Us/ Mā rā -be mā</td>
<td>12</td>
<td>0.48</td>
</tr>
<tr>
<td>Our/ Mā -emān</td>
<td>332</td>
<td>13.3</td>
</tr>
<tr>
<td>Total</td>
<td>1283</td>
<td>51.58</td>
</tr>
</tbody>
</table>

**Frequency of Discourse Functions of First Person pronouns**
According to Tang and John (1999), the first person pronoun in academic writing is not a "homogeneous entity" and it can be used in various ways to perform several roles or functions which display different degrees of authorial position of the writer. Several functional taxonomies have been proposed by different researchers (Ivanic 1998; Kuo 1999; Tang & John 1999; and Hyland 2001; Harwood, 2005). Drawing on the functional classifications developed by Hyland (2002) and Lafuente Millán (2010), in the present data I observed the following functions:

1. **Stating the goal:**
Typically found in the introduction section of the article, this is the function in which the author explains the purpose of the research and organizes the information as in the following example:

   1) We aimed to assess the superiority of mOPV2, mOPV3, or bOPV over tOPV, and the non-inferiority of bOPV compared with mOPV1 and mOPV3. The superiority of mOPV1 over tOPV has already been reported.

   2) Our aim was to test the generalisability and scalability of this community-based participatory approach with women’s groups.

As shown in tables 4 and 5, there were 47 (1.8) instances of ‘we’ and 17 (0.6) instances of ‘our’ in the English corpus and 13 (0.9) instances of mā and 16 (1.08) instances of mā/-emān in Persian corpus showing this function.

2. **Describing the method and procedure:**
This function usually exists in the method section of the article in which the writer explains the various steps involved in the research process. (Examples 3 and 4)

   3) We gave infants one dose of vaccine immediately after random allocation (at birth). At 30 days, we took blood samples, and the infants received a second dose of the same vaccine.

   4) ...We entered the data into an electronic database (MS Access) such that duplicate entries existed for each study and when the two entries did not match we reached consensus through discussion.

This function, as shown in tables 4 and 5, was the most frequent function in both English and Persian, although the difference between the two languages is remarkable. There were 609 (24.5) cases of we, 28 (1.9) cases of mā, 56 (2.2) cases of our, and only 4 (0.27) cases of mā/-emān in the corpus that figured this function.
3. Stating expectations, hypothesis, or agreement

The writers, in this function, show more authorial identity as they express a particular assumption or attitude or express agreement or disagreement with previous studies. While it rarely occurred in Persian articles, 41 (1.01) cases of "we" and 37 (1.5) cases of "our" showed this function in English corpus:

5) Hypertension during dialysis treatments is mainly caused by the rate of ultra filtration; we anticipate that a wearable haemodialysis device could provide greater cardiovascular stability than does standard haemodialysis.

6) Other trials assessing progression of chronic kidney disease in hypertensive patients with nephropathy and normoalbuminuria or microalbuminuria show similar outcomes to our study when assessed by the same criteria.

7) We hypothesize that the large reduction in moderate depression seen in the third year could have occurred through improvements in social support and problem-solving skills of the groups.

5. Stating strength or limitation of the study.

Through this function the author explains the significance and the weak points in his or her research (examples 8 and 9). While 5 (0.3) instances of mā with this function were found in Persian articles, 47 (1.9) instances of "we" and 65 (2.6) instances of "our" performing this function were observed in English corpus.

8) We were able to show a significant weighted mean difference for CD4 T-cell count between the treatment groups.

9) We believe that the study had two main weaknesses. First, as in several other community-based randomized control trials, the intervention and surveillance teams were not unaware of allocation. ……… Second, although migration out of districts was common, we cannot rule out some inter cluster migration when women married out of their home cluster. Our intention to treat analysis might have affected the results positively or negatively.

6. The author explains the results.
This was the second most frequent function of "we" -162 (6.5) instances- and mā- 27 (1.8) instances- in the English and Persian corpora. On the other hand, "describing results" was the most frequent function of "our" 118 (4.7) in English corpus.

10) We found that adjuvant treatment with a combination of CAF plus tamoxifen significantly improved disease-free survival compared with tamoxifen alone in postmenopausal women with node-positive, hormone receptor-positive breast cancer.

11) According to our findings, stroke and arthritis merit a high ranking, especially since some of the effect of limb paralysis or weakness ……

7. The author makes claim.

This is the function that manifests the highest level of author presence in academic writing as the writers make their claims and accept responsibility for what they claimed (Example 12). While no instances of mā performing this function were found in Persian articles, 33 (1.3) instances of "we" and 39 (1.5) instances of "our" were found in the English corpus.

12) We believe that for postmenopausal women with little comorbidity who have a substantial risk of recurrence or death based on the prognostic profile of their tumors, the risk–benefit balance favors anthracycline-based chemotherapy followed by tamoxifen.

Table 4. Raw and normalized frequencies (×10,000) of the function of exclusive we

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Persian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>raw</td>
<td>norm.</td>
</tr>
<tr>
<td>Stating the goal</td>
<td>47</td>
<td>1.8</td>
</tr>
<tr>
<td>Describing steps and procedure</td>
<td>609</td>
<td>24.5</td>
</tr>
<tr>
<td>Stating expectations, hypothesis, or agreement</td>
<td>41</td>
<td>1.01</td>
</tr>
<tr>
<td>Stating strength or limitation of the study</td>
<td>47</td>
<td>1.9</td>
</tr>
<tr>
<td>describing the results</td>
<td>162</td>
<td>6.5</td>
</tr>
<tr>
<td>Making claim.</td>
<td>33</td>
<td>1.3</td>
</tr>
<tr>
<td>total</td>
<td>939</td>
<td>37.01</td>
</tr>
</tbody>
</table>

Personal Pronouns in English and Persian Medical Research Articles
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Table 5. Raw and normalized frequencies (×10,000) of the function of exclusive our.

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Persian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>raw norm.</td>
<td>raw norm.</td>
</tr>
<tr>
<td>stating the goal</td>
<td>17 0.6</td>
<td>16 1.08</td>
</tr>
<tr>
<td>Describing steps and procedure</td>
<td>56 2.2</td>
<td>4 0.27</td>
</tr>
<tr>
<td>Stating expectations, hypothesis, or agreement</td>
<td>37 1.5</td>
<td>0 0</td>
</tr>
<tr>
<td>Stating strength or limitation of the study</td>
<td>65 2.6</td>
<td>3 0.3</td>
</tr>
<tr>
<td>describing the results</td>
<td>118 4.7</td>
<td>21 1.4</td>
</tr>
<tr>
<td>Making claim.</td>
<td>39 1.5</td>
<td>0 0</td>
</tr>
<tr>
<td>total</td>
<td>332 13.1</td>
<td>44 3.05</td>
</tr>
</tbody>
</table>

Conclusions

The cross-linguistic analysis of first person pronouns in medical research articles written in English and in Persian showed significant differences in the distribution of first person pronouns throughout the research article in English and in Persian and the particular discourse functions they perform. No instances of singular first person pronouns were found in both corpora as the whole research articles were multi-authored. Plural first person pronouns occurred in both English and Persian articles, though to a different extent. The results indicated that English writers use self-mentions in research articles much more frequently than Iranian writers do. Subject first person plural 'we' and its Persian counterpart 'mā' were the most frequent self-mention resources in the corpora. The analysis of the specific discourse functions for which exclusive first person plural subject pronouns were used showed that both English and Persian writers typically used these pronouns to "explain the steps and the procedures" for their study.
Iranian medical professionals are more likely to apply impersonal and passive voice rather than first person pronouns or possessive adjectives and prefer to use the pronouns for a narrower range of functions. They practically avoided stating their hypotheses, limitations, strengths, or agreement to previous studies. No single occurrence of the function of "making claim" was found in the Persian corpora and they favor passive voice in the presentation of their findings that points to fact that are not willing to assume personal responsibility for their findings. The lower number of self-mentions in the Persian corpus can be explained by the cultural backgrounds of researchers and the particular views their culture holds on self-representation. Just as previous contrastive research has shown that self-mention in research articles may differ according to the authors’ cultural background (Vassileva, 1998; Flbøttum et. al, 2006; Martin, 2004; Du, et. al. 2005; Mur Duenas, 2007; Molino, 2010, Carciu, O.M., 2009; Carter-Thomas & Chambers, 2012), the present study offer more evidence for the influence of the author's culture on the degree of authorial presence in a academic papers.
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