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## Authorial presence in research article abstracts: A diachronic investigation of the use of first person pronouns



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## 1. Introduction

Over the past decades, the question of how authors present themselves in English academic writing has been a focus of much research (e.g., Hyland, 2001, 2002a, 2003; Harwood, 2005a; Ivanič, 1998; Lafuente Millán, 2010; Martínez, 2005; Mur-Dueñas, 2007; Tang & John, 1999). The representation of authorial presence, mainly by self-referring personal pronouns, not only reveals the active or passive way in which authors present their texts but also sheds light on how they position themselves in their relationship with their texts, their readership and the discourse community at large (Shehzad, 2007). Therefore, whether self-referring pronouns should be employed or avoided in academic writing has been problematic for both English L1 and L2 academic writers (Hyland, 2002a) and a perennial topic of debate among applied linguists (e.g., Hyland, 2001; Tarone et al., 1998). While some manuals advocate the choice of personal presence (e.g., Skwire & Skwire,

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2001), others insist on avoiding it (e.g., Lester & Lester, 2017). There are differential findings on the evolution of personal pronoun usage in various disciplines. For instance, Atkinson (1992) identified a gradual move from a prominent author-centered style of discourse indexed by the heavy use of *I* to a non-author-centered one in medical reports from 1735 to 1985 and Atkinson (1999, pp. 1675–1975) evidenced a persistent growth in informational features described as a change from an author-centered rhetoric to a highly abstract one in scientific prose from 1675 to 1975. On the other hand, Banks (2017), Chang and Swales (1999), and Hyland and Jiang (2017) observed that personal pronouns have been increasingly used in academic prose in general and in scientific prose in particular from the late half of the 20th century on, making academic texts more interactive and informal. Additionally, Salager-Meyer (1999) reported that the choice of self-referring pronouns underwent a significant shift from the first person pronoun *I* or *my* to *we* and/or *our* in written medical English texts between 1810 and 1995. These inconsistent findings indicate that the evolution of the use of first person pronouns in English academic writing deserves further attention and more empirical research is needed. In view of this, my study intends to investigate the representation of authorial presence realized by first person pronouns from a diachronic perspective, with data sampled from applied linguistics research article (RA) abstracts published between 1990 and 2019.

## 2. Literature review

In academic writing, writers adopt a range of rhetorical strategies to communicate with readers and to construct their authorial identity (Ivanic, 1998). Previous research in this vein has centered on such devices as attitude markers (e.g., Mur-Dueñas, 2010), hedges (e.g., Yang, 2013), evaluative adjectives (e.g., Swales & Burke, 2003), and epistemic modality (e.g., Yang et al., 2015). Among these devices, first person pronouns are considered the most powerful option for overtly representing the author's voice, stance and attitude (Biber et al., 1999) and their deployment enables writers to foreground their commitment/contribution to the disciplinary community and construct an authoritative discursive self through the representation of different discourse functions (e.g., Hyland, 2002a; Tang & John, 1999). Accordingly, a plethora of studies have investigated the use of first person pronouns in academic discourse over the past decades.

One important line of inquiry has been the discourse functions of first person pronouns. The focus has been on the identities that authors may project in their discourses. As pointed out in Hyland (2001, 2002a) and Tang and John (1999), academic writers use self-mentions, including first person pronouns and self-citations, as a resource to represent themselves as reliable and knowledgeable members of their disciplinary community. In so doing, a particular self or persona is created, helping construct persuasive writing and gain credibility from readers. However, first person pronouns in academic writing are not a “homogeneous entity” but rather help project various roles or identities with divergent degrees of authorial presence (Tang & John, 1999). Ivanic (1998) proposed a functional framework of four interrelated selves of authorial presence – *self-hood*, *autobiographical self*, *discursive self* and *authorial self* – for understanding authorial identity. Among these selves, *authorial self* is closely correlated with the degree of authorial presence displayed in the text through the use of personal pronouns. Developing Ivanic's (1998) framework, Tang and John (1999) advanced a taxonomy of six authorial roles along a cline regarding the degree of authors' presence in the text and authors' authority in their arguments that personal pronouns can represent – *the representative*, *the guide*, *the architect*, *the recounter*, *the opinion holder* and *the originator*. On this cline, the first two are the less powerful roles because they convey a low degree of authorial presence while the last two are the more powerful and face-threatening ones in that they explicitly display a high degree of authorial presence and authority. Hyland (2002a) also proposed a typology of four discourse functions for self-mentions in RAs: *stating a goal/purpose*, *explaining a procedure*, *elaborating an argument*, and *stating results/claims*. The former two display a lower degree of authorial exposure and the latter two manifest a much more powerful and explicit authorial presence, like that of Tang and John (1999). Additionally, Harwood (2005b), viewing personal pronouns as a self-promotional device, identified a number of self-promotional effects which personal pronouns can achieve to publicize writers and their research, e.g., organizing the discourse, outlining procedure/methodology and reporting findings. Some of these effects are close to the discourse functions proposed in Tang & John's and Hyland's framework.

Adopting the above functional frameworks, a number of studies have been carried out with different focuses. One focus has been on variation across disciplines. Hyland (2001, 2002a, 2003) and Harwood (2005a), for instance, found that personal pronouns tend to be preferred in soft disciplines more than in hard ones. Furthermore, writers in soft disciplines employ the singular *I* more often, while those in hard sciences demonstrate a preference for the plural *we*. Additionally, divergences have been identified across specific disciplines like linguistics and economics (Salas, 2015). Even within the same discipline, personal pronouns can be deployed differentially. For instance, Harwood (2006) found that theoretical-oriented political science authors used more personal pronouns than empirical-oriented ones. These findings indicate that the discipline and even the intradisciplinary variables may sanction the degree of authorial presence.

A second focus has been on variation in use of personal pronouns across languages. It has been found, for instance, that self-mentions are more prevalent in English RAs published in international journals than in RAs written in other languages, e.g., in German, French, Russian, Bulgarian (Vassileva, 1998), in Spanish (Lorés-Sanz, 2011; Mur-Dueñas, 2007), in Chinese (Li & Xu, 2020), and in Turkish (Işık-Taş, 2018).

A third focus has been on variation across cultural backgrounds. Specifically, this line of research contrasts the use of first person pronouns by L1 and L2 writers of English, examples of which include Bulgarian, German, French, and Russian (Vassileva, 2000), Spanish (Martínez, 2005; Mur-Dueñas, 2007), Russian and Ukrainian (Yakhontova, 2006), Chinese (Gao, 2018), and Turkish writers (Can & Cangir, 2019). These studies show that English L1 writers, compared with their English

L2 peers, demonstrate a marked preference for personal authorial references. Hence, study of how the first person is represented in academic prose appears to index cultural identity.

The interplay of disciplines and languages/cultures is another dimension which has attracted researchers' attention. Fløttum et al. (2006) and Gao (2018) observed a stronger contribution of the discipline factor to the variation in the use of personal pronouns than the language factor. This again suggests that disciplinary writing practices impact writers' discursive choice of authorial visibility to a greater degree than other variables.

A variety of academic genres have also been investigated regarding the use of first person pronouns. Apart from RAs which most of the aforementioned studies concern, some studies focused on student genres, e.g., undergraduate argumentative essays (Çandarlı et al., 2015), undergraduate theses (Hyland, 2002a), and doctoral dissertations (Can & Cangir, 2019). However, the genre of RA abstract has received limited attention. Exceptions are Lorés-Sanz's (2006) comparison of the use of self-mentions in English and Spanish Linguistics RA abstracts, and Li and Hou's (2018) contrast of self-mentions as authorial identity markers in Chinese and English social science RA abstracts. Another exception is Hyland's (2003) examination of authorial mention in RAs and abstracts in eight disciplines. This paucity of attention is unexpected given the broad insights into the rhetorical structure, linguistic features and pragmatic functions of abstracts offered by existing research (e.g., Bondi & Lorés Sanz, 2014; Jiang & Hyland, 2017; Khedri et al., 2013; Lindeberg, 2004; Pho, 2008). As a pivotal component of an RA, the abstract not only summarizes the content of the accompanying article (Bhatia, 1993), but also "sells" (Pho, 2008, p. 231) or promotes it (e.g., Berkenkotter & Huckin, 1995; Lindeberg, 2004). It has been gaining significance and prominence since its being incorporated into a standard policy concerning RA publication in the late 1970s (Lindeberg, 2004) and has become a part-genre which is "often consulted on their own by scholars who want to assess the RA's relevance for the field" (Gillaerts & Van de Velde, 2010, p. 136) due to the increasing number of publications. Accordingly, the abstract is a highly social genre which provides readers with a quick overview of the publication to help them decide whether to read it in more detail, given the increasing numbers of publications to choose from, and is "replete with subjective material, expressed by interactional elements" (Gillaerts & Van de Velde, 2010, p. 130). It is therefore a crucial sub-genre for studying how authorial references like personal pronouns are drawn on to represent authorial voice and authors' interaction with readers.

Apart from the synchronic studies discussed above, investigation into the dynamic and historical characteristics of personal pronouns in scientific prose published in the past centuries has also been undertaken. Notable examples include Atkinson (1992, 1999, 2001), Banks (2017), and Salager-Meyer (1999), as reviewed in the Introduction section. These studies show that as sciences evolve, the rhetorical and linguistic means (like the representation of authorial presence) by which they are primarily communicated simultaneously evolve. However, two issues can be identified with these studies. First, they have overwhelmingly centered on well-established scientific disciplines such as medicine, spectroscopy, physics and biology. Applied linguistics – a relatively new discipline which can be traced back to about 1948 – has received little attention. One exception is Hyland and Jiang (2017) who, in their diachronic investigation of the formality of academic prose in different disciplines from 1965 to 2015, observed a decline in the frequency of personal pronouns in applied linguistics RAs. Unfortunately, this study explored the historical alteration of personal pronouns as one feature of informality merely in terms of its occurrence. An exclusive and deeper investigation of the use of personal pronouns, for instance, one incorporating examination of the discourse functions into the alteration of its occurrence, may present a panorama of how personal pronouns as authorial presence markers evolve. Second, all these studies chose the full text of RAs as their subjects. The abstract has been neglected.

The abstract, as a customary and comparatively independent part-genre which follows relatively stable and fixed structuring and linguistic conventions, might also display chronological variation and evolution in its rhetoric strategies. Yet, relevant research has been scarce. Gillaerts and Van de Velde (2010), when dealing with this issue, focused on the distribution of hedges, boosters and attitude markers, but their study excluded self-mention pronouns. While differential findings have been reported concerning the dynamic nature of personal pronoun usage in RAs (as previously reviewed), what may be the evolutionary picture of the use of first person pronouns in RA abstracts?

As a response to the above issues, this article examines whether alterations have occurred in the use of first person pronouns as authorial presence markers in applied linguistics RA abstracts in the past decades. The following questions will be addressed:

- 1) What diachronic changes, if any, can be observed in the occurrence of first person pronouns in RA abstracts?
- 2) What diachronic changes, if any, can be identified in the discourse functions of first person pronouns in RA abstracts?

### 3. Method

#### 3.1. The corpus

The corpus for the present study is the self-built Diachronic Research Article Abstracts Corpus – Applied Linguistics (DRAAC-AL). DRAAC-AL comprises 2707 RA abstracts totaling 453,470 words published in four applied linguistics journals – *Applied Linguistics* (AL), *Language Learning* (LL), *Modern Language Journal* (MLJ) and *TESOL Quarterly* (TQ) – between 1990 and 2019. The selection of these four journals was based on the journal rankings of Social Sciences Citation Index (SSCI) in terms of

impact factors. First, according to the SSCI linguistics journal rankings of InCites Journal Citation Reports (JCR) on Web of Science (WoS), I selected eight applied linguistics journals which were ranked three to five times in the top 30 lists during 2014–2018 to ensure their prestige in the field and publish RAs from a wide range of scholars and subfields. Second, I checked the official website of these eight journals and determined the above four which had all been in production for 40 or more years as target journals. Afterwards, I decided to sample abstracts from the period 1990–2019 since this is the period when these journals' RA abstracts are downloadable from WoS. Finally, I divided these 30 years into three individual decades – 1990–1999 (1990s), 2000–2009 (2000s) and 2010–2019 (2010s), considering that three sub-spans of 10 years could serve as reasonable time windows for discerning the possible diachronic change.

The data were searched and retrieved from the WoS SSCI database on January 13, 2020 by setting the sequential search information as “Publication Name” (four journal names respectively), “Indexes = SSCI”, “Timespan” (1990–1999, 2000–2009 and 2010–2019 respectively). The retrieval results were further refined with the document type “article” (other document types such as “review” and “editorial” were excluded because they are genres different from articles). Then the bibliometric items of all articles including author names, titles, abstracts and publication names were downloaded. Subsequently, based on the consideration that different first person pronouns might be used in abstracts of various authorship, all items of the various time spans were divided into single-authored and co-authored ones using a self-compiled Visual Basic for Application Excel program. Finally, all the abstracts were extracted, cleaned up and transformed to plain text format to build the subcorpora for the convenience of software concordancing. Note that the 1990s data as described below consists of abstracts published in 1992–1999 in *AL*, 1991–1999 in *LL*, 1995–1999 in *MLJ*, and 1991–1999 in *TQ* due to the incomplete availability of all abstracts of the respective journals on WoS. The descriptive statistics of the corpus are displayed in Table 1.

### 3.2. Research procedures

Quantitative examination supplemented with manual contextual analysis was applied to all instances of first person pronouns in the corpus so as to identify their authorial references and discourse functions. Specifically, the following procedures were followed.

First, items of authorial presence markers were searched. Following Hyland's (2000, p.113) definition of “Person markers”, I defined authorial presence markers as linguistic expressions which indicate the explicitness of authorial presence in the text and are employed to “present propositional, affective and interpersonal information” (Candlin & Hyland, 1999, p. 104). To ensure in-depth exploration into the use of these markers, I demarcated authorial presence markers as first person pronouns, i.e., *we*, *our*, *us*, *ours*, *I*, *my*, *me*, *mine*. All occurrences of these pronouns were searched and marked by applying the text analysis software EditPad Pro and manually analyzed in context. All instances not referring to the author(s) (e.g., first person instances within examples or quotes and *U.S.* abbreviating “United States”) were excluded.

Second, the discourse functions of the subject pronoun *we* and *I* in co-authored and single-authored abstracts were manually annotated respectively because they were the markers which occurred most frequently in the corpus, they were more explicit indications of authorial presence than other forms, and also because they (*we* in particular) displayed somewhat obvious frequency divergences across time spans (see Table 3 and Table 4). Using previous categorization frameworks proposed by Gao (2018), Hyland (2002a) and Tang and John (1999) as a point of departure, I examined half of all instances of the two pronouns so as to identify their major discourse functions and constructed a corpus-driven categorization framework. Meanwhile, I redefined some categories in accordance with their relevance to the part-genre of abstracts. Then a colleague and I manually coded all instances of *we* and *I* and resolved 39 discrepancies through careful discussion. The inter-coder agreement rate was 97.5%. The modified framework is shown in Table 2. Examples of these functions were extracted from the corpus. Furthermore, I classified these functions into two categories - low-stakes and high-stakes ones - according to the authorial power they foreground or the risks the author takes in each usage, and the discourse function rankings and authorial roles proposed in Gao (2018), Hyland (2002a) and Tang and John (1999). The first three functions in the table fall under Tang and John's (1999) identity category of “architect of the text”. The fourth one is closely correlated with their category of “recounters of the research process”. By deploying these functions, authors explicitly show their presence, guide readers through the text and undertake responsibility for their research decisions with relatively low risk of exposing

**Table 1**  
Descriptive statistics of the corpus.

	1990s			2000s			2010s		
	Sing-AU	Co-AU	Subtotal	Sing-AU	Co-AU	Subtotal	Sing-AU	Co-AU	Subtotal
<i>AL</i>	97	46	143	122	72	194	146	150	296
<i>LL</i>	59	78	137	100	119	219	92	275	367
<i>MLJ</i>	66	49	115	133	106	239	180	208	388
<i>TQ</i>	103	57	160	102	74	176	124	149	273
Total No.	325	230	555	457	371	828	542	782	1324
No. of words.	51158	38632	89790	76505	62481	138986	92046	132648	224694
Ave. No. of words	157.4	168.0	161.8	167.4	168.4	167.9	169.8	169.6	169.7

**Table 2**  
Categorization of the discourse functions performed by *we* and *I*.

Functions	Description	Examples
Low-stakes	Organize the text	Organizes the text and guides the reader through the text
	State a goal	Depicts authors' goals, purposes and topics in the study
	Define a term	Gives the definition of a term
	Describe methods	Recounts research methods/ procedures
High-stakes	State opinions	Gives authors' opinions, arguments, or states knowledge claims
	State a hypothesis	States the research hypothesis
	Propose a theory	Presents a theory or approach proposed in the study
	Report results	Presents the results, findings or conclusions of the study

themselves to readers' challenges, thus they were categorized as low-stakes functions. The fifth and the sixth function construct "the opinion holder" identity while the seventh and the eighth play "the originator" part according to Tang and John (1999). Both categories authoritatively express authors' original personal ideas, knowledge claims, novel or unique findings which are more liable to expose to readers' direct attacks and are therefore classified as high-stakes functions.

What is noteworthy is the annotating of *we* instances. Plural first person pronouns, particularly the subjective *we*, have inclusive and exclusive semantic references. Inclusive *we* can be defined as collectively referring to the writer, the reader and the disciplinary community as a whole (as in Example (1)) and exclusive *we* as referring to the writer (as in Example (2)). Some researchers (Harwood, 2005a; Lafuente Millán, 2010; Shehzad, 2007) contend that these two types of *we* may accomplish distinct writer roles. Under Tang and John's (1999) taxonomy, exclusive *we* may present the role of "the originator" (as in (3)) or "the opinion-holder" (as in (4)), conveying a high degree of authorial presence, and inclusive *we* may represent the role of "the representative" (as in (5)) and "the guide" (as in (6)), allowing writers to display a low degree of authorial presence. Harwood (2005a) further elaborated on the inclusive category and identified its subcategories of function in RAs. While coding the *we* cases, I first determined whether the usages were exclusive or inclusive, followed by their discourse functions as illustrated in Table 2. I did not annotate functions of *we* according to Harwood's (2005a) elaborative framework as I consider that could be the subject matter of another article.

- (1) Findings suggest that *we need to* rethink the way languages are perceived as opportunity by different stakeholders ... (2010s)
- (2) *We compared* three high school groups of learners of the same L1 and comparable L2 (English) proficiency. (2000s)
- (3) *We found* advanced NNSs matching those of native speakers in almost all respects. (2010s)
- (4) *We argue* that the actions through which the participants display and sustain an orientation to an interactional practice as an object of learning make visible a learning project. (2010s)
- (5) Indeed, although our knowledge of the phonology of French is rich, *we know* considerably less about Cantonese. (1990s)
- (6) This paper argues that this view is unfounded but that *we need to* match the different aspects of autonomy with the characteristics and needs of learners in specific contexts. (1990s)

Third, the incidences of all personal pronouns as well as *we* and *I* performing various functions were counted using AntConc concordance software (Anthony, 2020) and compared across time spans. To facilitate statistical comparison, raw frequencies were normalized on the basis of 10000 words since there is considerable variation in the size of the subcorpora as shown in Table 1. Chi-square tests were conducted for cross-period comparison, the alpha level of which was set at 0.05.

#### 4. Results and discussion

A total of 2085 first person pronouns indicating authorial presence (0.77 instances per abstract), or a normalized frequency of 46 first person pronouns per 10000 words, was identified. Given journals' strict constraint on the length of abstracts, such a frequency is not low compared with that of 44.5 per 10000 words in linguistics articles in Gao's (2018) study. This illustrates that applied linguists appear to be prone to injecting elements of promotion and/or interaction into their texts with a purpose to construct a committed and engaged presence in their abstracts, corroborating the notion that academic writing is not the formal and faceless prose as it is traditionally depicted to be (Hyland, 2003). Although RA abstracts are characterized by informativeness and abstraction (Biber, 1988), human agents are integral to the representation of their meaning.



**Table 3**  
Occurrences of first person pronouns in co-authored abstracts.

Pronouns	1990s	2000s	2010s	Chi-Square Test		
				1990s vs. 2000s	2000s vs. 2010s	1990s vs. 2010s
<i>we</i>	197 (51.0)	337 (53.9)	584 (44.0)	$\chi^2 = 10.0049$ $p = 0.002^{**}$ (-)	$\chi^2 = 8.8797$ $p = 0.003^{**}$ (+)	$\chi^2 = 5.4239$ $p = 0.020^{*}$ (-)
<i>our</i>	35 (9.1)	104 (16.6)	184 (13.9)			
<i>us</i>	2 (0.5)	8 (1.3)	20 (1.5)	$\chi^2 = 4.5355$ $p = 0.033^{*}$ (-)	$\chi^2 = 10.4624$ $p = 0.001^{**}$ (+)	
Total	234 (60.6)	449 (71.9)	788 (59.4)			

Note: 1. No instance of the possessive *ours* and *mine* was identified in my data and is therefore not listed in this table and Table 4.

2. For the convenience of comparison, the normalized occurrence of pronouns was added in parenthesis in this table and Table 4.

**Table 4**  
Occurrences of first person pronouns in single-authored abstracts.

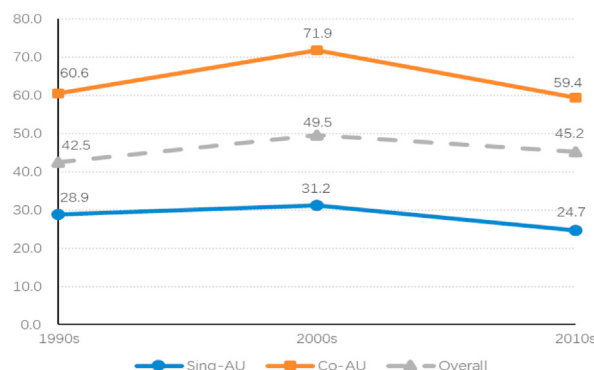
Pronouns	1990s	2000s	2010s	Chi-Square Test		
				1990s vs. 2000s	2000s vs. 2010s	1990s vs. 2010s
<i>I</i>	90 (17.6)	160 (20.9)	166 (18.0)	$\chi^2 = 5.1452$ $p = 0.023^{*}$ (-)	$\chi^2 = 12.3730$ $p = 0.000^{***}$ (+)	
<i>my</i>	9 (1.8)	31 (4.1)	12 (1.3)			
<i>me</i>	0 (0.0)	5 (0.7)	0 (0.0)	$\chi^2 = 5.2235$ $p = 0.022^{*}$ (-)	$\chi^2 = 6.0159$ $p = 0.014^{*}$ (+)	
Sing. subtotal	99 (19.4)	196 (25.6)	178 (19.3)			
<i>we</i>	22 (4.3)	17 (2.2)	12 (1.3)	$\chi^2 = 4.3361$ $p = 0.037^{*}$ (+)	$\chi^2 = 7.4449$ $p = 0.006^{**}$ (+)	$\chi^2 = 12.4403$ $p = 0.000^{*}$ (+)
<i>our</i>	19 (3.7)	17 (2.2)	25 (2.7)			
<i>us</i>	8 (1.6)	9 (1.2)	12 (1.3)	$\chi^2 = 6.6680$ $p = 0.010^{**}$ (+)	$\chi^2 = 8.7044$ $p = 0.003^{**}$ (+)	
Plu. subtotal	49 (9.6)	43 (5.6)	49 (5.3)			
Total	148 (28.9)	239 (31.2)	227 (24.7)		$\chi^2 = 6.5573$ $p = 0.010^{*}$ (+)	

#### 4.1. Diachronic changes in the occurrences of first person pronouns

Since the use of personal pronouns is influenced by the authorship, i.e., single-authorship and co-authorship, I present below the results considering the authorship of abstracts. As Fig. 1 shows, co-authored abstracts display a significantly higher density of pronouns than single-authored ones (over double) in all three periods ( $p = 0.000$ ). Diachronically, the gap in the incidence of personal pronouns in abstracts of two authorships expanded from around 110% in the 1990s to approximately 140% in the 2010s. This suggests that co-authors have been intruding into their abstracts conspicuously whereas single authors' presence in their texts is less marked.

In co-authored abstracts, as shown in Table 3, the overall occurrence of plural pronouns demonstrates a fluctuating trend through the three subsets. It significantly rises from the 1990s to the 2000s ( $p = 0.033$ ) and then falls during the 2010s ( $p = 0.001$ ) when the normalized occurrence drops back to almost the same as in the 1990s. This indicates co-authors in the 2000s subset are more willing to project their personal presence while in the other two decades they tend to downplay their personal roles.

In terms of the specific pronouns, *we* has been predominant all through the periods. It rose slightly from the 1990s to the 2000s but then sharply dropped in the following decade ( $p = 0.003$ ), indicative of co-authors' declining willingness to represent themselves as agentive subjects of their research and claims in the latest decade. *Us* is very sparingly used and shows no significant variation across the periods. *Our* exhibits significantly lower presence in the earliest decade than in the later two decades ( $p = 0.002$ ,  $p = 0.020$ ), implying co-authors' growing interest in explicitly projecting their ownership of



**Fig. 1.** Distribution of first person pronouns in abstracts of various authorship (per 10000 words).

their research findings and claims. Analysis of the concordance lines of *our* indicates that across the periods its five most cooccurring words are the same, i.e., *findings*, *understanding*, *results*, *analysis* and *study*, among which the collocations of *findings*, *results* and *understanding* have been persistently increasing. As illustrated in (7), the increasingly high occurrence of *our findings/results* indicates that applied linguists tend to foreground their role as “originator” to declare their ownership of research results. On the other hand, the recurrence of *our understanding* as exemplified in (8) suggests that co-authors endeavor to address the research community by using *our* as an inclusive engagement marker so that the contribution of their research to the whole disciplinary community can be accentuated.

- (7) *Our findings* suggest that emerging L2 proficiency consists of many distinct voices that can significantly differ in accuracy of grammatical forms and fluency. (2010s)
- (8) The findings improve *our understanding* of how L2 teachers and students can attend to materials and adapt such interactional resources for their own purposes. (2010s)

In single-authored abstracts, the distribution of personal pronouns presents a somewhat distinct pattern. As Table 4 displays, the overall frequency of the authorial presence markers culminates in the 2000s but it is only significantly higher than that in the 2010s, suggesting that authors markedly reduced their explicit presence in the latest period. The subtotal of singular pronouns occurs more frequently in the 2000s than in the other two periods ( $p = 0.022$ ,  $p = 0.006$  respectively) but that of plural pronouns is markedly higher than that in the later two periods, suggesting that in the transition to the 21st century, single authors tend to strengthen their authorial exposure through singular pronouns. Specifically, the singular *I* recurs noticeably but does not exhibit pronounced historical variation, demonstrating that single authors tend to persistently present themselves as individual agents. Yet the incidence of the possessive *my* exhibits obviously fluctuating evolution – upward from the 1990s to the 2000s ( $p = 0.023$ ) and then downward to the 2010s ( $p = 0.000$ ). *Me* occurs only 5 times in the 2000s subset. The plural *we* appeared significantly more frequently in the 1990s than in the later two periods ( $p = 0.037$ ,  $p = 0.000$  respectively), demonstrating that single authors are decreasingly willing to undertake responsibilities for and make commitment to their claims and findings as community members. In sum, in the recent two decades, single authors show stronger preference for first person singulars over plurals to project personal attributions while claiming ownership and the value of their findings and claims so as to construct explicit and powerful authorial identity.

Drawing on the above statistical results, we can see that compared with the 1990s, the 2000s period witnesses a growing trend of opting for personal pronouns in accordance with the number of authors to explicitly present authorial presence. In other words, co-authors and single authors tend to project their exclusive authorial identity through explicit self-referring plural and singular pronouns respectively. This is understandable considering the increasing competitiveness in the research community in the new century. Confronted with such intense competition, writers are highly pressured to present vigorous argument for the originality of their claims and display an authoritative professional persona so as to promote their research and attract readers to read their full articles. Consequently, while writing abstracts, writers may more likely employ personal pronouns – one of the most powerful devices for establishing authority and projecting author persona – to construct texts.

However, the finding that both single-authored and co-authored abstracts in the 2010s use significantly fewer personal pronouns than in the 2000s may seem surprising, especially because the average length of abstracts (particularly single-authored ones) in the 2010s is the longest among the three periods (see Table 1). It may thus be partially inferred that abstracts published recently aim to sound more objective or factual than before, given that the first person pronoun is listed as one of the “informal elements” in academic writing according to Chang and Swales’ (1999) survey of 40 style manuals. This increasing objectivity or factuality might be correlated with the “generic shift of RA abstracts” from an embedded part-genre which is positioned between the title and full text of RAs, both structurally and functionally, and traditionally read together with the full-text article, to a relatively independent one which is usually consulted separately by readers to appraise the RA’s relevance for their fields (Gillaerts & Van de Velde, 2010, p. 136). Due to the exponential increase in scientific output in the latest decade, the sharply rising demand for quick-to-consult abstracts of research findings and the publication of abstracts in electronically accessed (abstract) databases may entail high informativeness of abstracts. To achieve informativeness, authors might focus on bringing in as much propositional information as possible, thus reducing the use of other resources like personal pronouns. On the other hand, the decline of authorial presence might reflect applied linguistics RAs’ convergence with hard discipline ones in respect of the use of interactional metadiscourse. It has been found that RAs in the hard sciences make less frequent use of interactional metadiscourse (including self-mentions) than RAs in the soft disciplines (Hyland, 2005, p. 187). This move may be an outcome of changing research practices in applied linguistic studies, in particular a greater push toward empirical approaches. Empiricism has traditionally emphasized “the persuasive authority of impersonality to maximize the credibility of the writer and elicit credence from the reader” (Hyland & Jiang, 2017, p. 45). Eradicating the self helps to “demonstrate a grasp of scholarly persuasion as it allows the research to speak directly to the reader in an unmediated way” (Hyland & Jiang, 2017). Applied linguists, as language-sensitive expert writers, might be aware of the attention personal pronouns draw to the individual author and the strong claims they make for agency in research, and hence consciously reduce or avert them in abstract writing.

The above evolution of authorial presence markers is somewhat incongruent with findings from some earlier studies, including Banks (2017), Chang and Swales (1999) and Hyland and Jiang (2017) which revealed a greater use of personal

pronouns in scientific papers in recent decades. In contrast, it is consistent with Atkinson's (1992, 1999, pp. 1675–1975) conclusion that writers show a declining personal attribution in scientific writing from the 18th to the early 20th century. The incongruence is understandable because the discipline this study involves is different from that of those studies discussed above. Previous research has identified divergent preference for personal pronouns in soft and hard discipline RAs for the rhetorical purpose of projecting authority or objectivity (Harwood, 2005a; Hyland, 2001, 2002a, 2003). As a soft applied discipline, applied linguistics is more argumentative and interpretive in nature than hard knowledge sciences. This distinctive nature of applied linguistics writing may allow writers to rhetorically deploy personal pronouns in their texts with greater flexibility. Accordingly, it is plausible that the use of personal pronouns in applied linguistics and hard sciences such as medicine and physics has undergone various historical development. As for the ostensibly consistent finding in this study and Atkinson's, I consider it a mere coincidence due to greatly varied time spans my and his studies cover. The materials Atkinson analyzed spanned a couple of centuries when fundamental changes happened in science and scientific writing, which to a great extent influenced the linguistic/rhetoric evolution in scientific writing. For instance, Atkinson (1992) noticed that medical writing developed from reports of single disease cases in the 18th century to articles focusing on information about a general disease type supported by statistics from large numbers of cases in the 20th century. Accompanying such a movement, medical writing developed from reports featuring a prominent authorial persona indexed by the pervasive use of personal pronouns to articles characterized by the diminution of authorial persona indexes. By contrast, the data of this study span thirty years, during which time a far less pronounced shift has occurred in applied linguistics RA abstracts.

Interestingly, only the diachronic change in personal pronoun use across the later two periods in this study is in line with the general declining trend in RAs of the same discipline during 1965–2015 reported by Hyland and Jiang (2017). The reasons for this partial similarity and partial difference may be twofold. First, the sampling methods of the two studies vary. This study sampled all the abstracts published in the targeted journals over the thirty years while Hyland and Jiang's sampled only six papers from each journal of the three years set as the comparing period. In other words, this study offers a panorama of the 30-years period while Hyland and Jiang's presents a snapshot of the 50-years span regarding the diachronic change in the use of authorial pronouns. A panorama generally provides a thorough picture (here the ups and downs of personal pronoun use) than a snapshot does (here a rough trend of personal pronoun use). Second, the varied genres the two studies targeted could also play a role. Hyland (2003) found that there is marked variation in authorial references in abstracts and articles. It is therefore not surprising that the diachronic distribution of personal pronouns in my study differs from that of Hyland and Jiang's as my study focuses on abstracts and theirs on article full texts.

#### 4.2. Diachronic changes in the discourse functions of first person pronouns

To detect possible diachronic variations in the points where writers intrude most explicitly into the text, I investigated the discourse functions *we* and *I* respectively performed in the co-authored and single-authored abstracts.

As illustrated by the normalized frequency in Fig. 2 and Fig. 3, all discourse functions appear more frequently in co-authored abstracts than in single-authored ones. In both types of abstracts, the overall low-stakes functions display higher incidences than the high-stakes ones, with a corresponding ratio of approximately 2:1 during all time spans. Among the low-stakes functions, the most recurrent are "Organize the text" and "Describe methods", together accounting for over 50% of the count of all eight functions. This striking divergence in the proportion of low-stakes and high-stakes functions suggests that applied linguists have been favoring the representation of their personal presence when the risk of face-threatening is relatively weak. Exposing themselves in this way, applied linguists may feel safe and comfortable with the adoption of a narrative schema to evoke readers' awareness of the personal decisions made in the structuring of the abstract or the related article and to undertake responsibility for their methodological decisions that lead to research findings (Gao, 2018). As Example (9) illustrates, the personal pronoun (*I*) collocates with reporting verbs (*analyze, discuss, sketch*) as well as sequential markers (*first, next* and *finally*) to outline the accompanying article and what the author aims to do in each step, whereby an overt structure of the article is depicted for the reader. In Example (10), the personal pronoun (*I*) collocates with verbs indicating research acts (*review, trace*) to present an account of the research methods or procedures. In both examples, the author plays the prominent role of a narrator and his/her introduction of the structure of the associated article or the research method exerts limited threat on the face of the reader. Nonetheless, this author prominence demonstrates the author's familiarity with research practices in the disciplinary community and reassures the reader of the author's professional competence. Also, by intruding into the discourse or research activity, the writer interpolates a component of qualitative judgement, reminding the reader that personal choices have been made and things could have been done otherwise.

- (9) In this article, *I will first analyze* an influential argument against ... *Next, I will discuss* crosslinguistic differences in .... *Finally, I will sketch* a simple learning mechanism by .... (2000s)
- (10) In this article, *I review* the origins and interdisciplinary nature of program evaluation, and *I trace* its development within applied linguistics and language education in particular. (2010s)



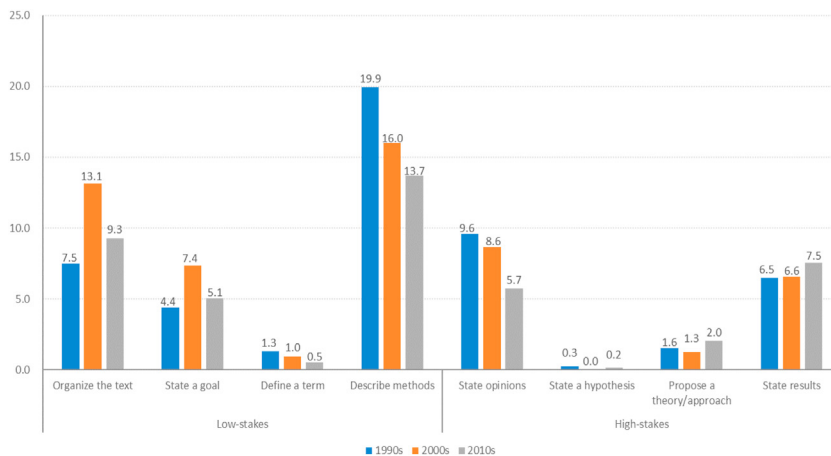


Fig. 2. Discourse functions of *we* in co-authored abstracts (per 10000 words).

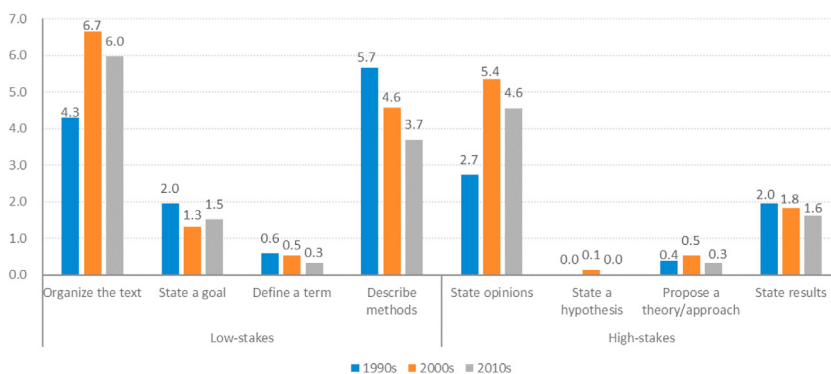


Fig. 3. Discourse functions of *I* in single-authored abstracts (per 10000 words).

The predominant function “Organize the text” and “Describe methods” respectively display a similar evolutionary trend – the former generally upward and the latter downward – in both types of abstracts. But significant variations are observed only in co-authored ones. In particular, in co-authored abstracts, “Organize the text” exhibits a diachronically overall upward but fluctuating tendency ( $p = 0.009$  for 1990s vs. 2000s and  $p = 0.014$  for 2000s vs. 2010s) with the peak occurring in the 2000s. However, “Describe methods” display a steadily declining tendency. Its incidence in the 1990s is significantly higher than that in the 2010s ( $p = 0.006$ ). These two functions’ contrastive evolutionary trend suggests that co-authors have been showing increasing concern for navigating the reader through the discourse by means of personal attribution. Providing readers with an overt structure of the associated article using the first person, abstract writers elucidate the schematic structure of their arguments and announce the purposes of their articles. As a result, authorial authority is established, their work and articles are promoted, and readers are oriented towards proceeding with reading the article.

“State a goal” shows the opposite diachronic distribution in the two types of abstracts but no significant variation is identified across the periods respectively. Only a marginal portion of both *we* and *I* fulfilled the function of “Define a term”.

Among the high-stakes functions, “State opinions” and “Report results” prevail, revealing that in the past three decades many applied linguists position themselves “as having property rights (of their opinions and findings), as contributors to the field” (Ivanic, 1998, p. 308). However, they display divergent evolution in the two types of abstracts.

In co-authored abstracts, the incidence of “State opinions” shows a significantly declining tendency ( $p = 0.010$  for 1990s vs. 2010s and  $p = 0.020$  for 2000s vs. 2010s). Close examination of the *we* instances<sup>1</sup> indicates that among those serving the function of “State opinions”, exclusive usage accounted for 70% (26 out of 37 cases) in the 1990s, but increased to over 90% in the later two subsets (53 out of 54 and 71 out of 76 cases respectively). As (11) illustrates, co-authors collocate exclusive *we*

<sup>1</sup> The overwhelming majority of *we* incidences serving functions other than “State opinions” were exclusive usage. Only 3 instances serving the function of “Describing methods” are inclusive usage.

mostly with cognitive verbs such as *argue*, *suggest* and *believe* to explicitly state their own arguments or interpretations. Hence, the rising incidence of exclusive *we* serving “State opinions” imply co-authors’ tendency to make strong claims and express powerful stances so as to rhetorically orient readers to their unique research and gain professional credit for their research. In the 1990s, most inclusive *we* instances were in the format of “*we* + modal verbs *could/can/must/might/need* + other verbs”, as exemplified in (12). The inclusive *we* hedges the authors’ claims by projecting authors sharing common ground with readers or engaging readers into the claim, placing the author in a safe zone. Modality is the “manner in which the meaning of a clause is qualified so as to reflect the speaker’s judgment of the likelihood of the proposition it expresses being true” (Quirk et al., 1985, p. 219). In my corpus, *can/could* is the most frequently selected modal verb. It is used in its meaning of “ability” and “possibility”. But the latter meaning, “often used in a quasi-imperative manner to suggest the course of action to the addressee” (Quirk et al., 1985) is dominant. Given that the inclusive *we* usage represents a less powerful authorial role than the exclusive one (Martín Martín, 2004) and may “act as a hedge, protecting the writer from attack” (Harwood, 2005a, p. 359), this relatively high occurrence of inclusive *we* perspectives in the 1990s reveals that writers may attempt to attain a certain level of authority while simultaneously avoiding explicit personal intrusion (Hyland, 2001). However, co-authors’ comparative reluctance to state opinions or interpretations by means of *we* as well as their scarce use of inclusive *we* in the later two decades might suggest their intention to disguise their commitment and responsibility when stating arguments or elaborating interpretations and their alienation from readers by opting not to personally engage with their own beliefs and their readers (Hyland, 2003).

- (11) *We argue* that the core of the new knowledge-base must focus on the activity of teaching itself .... (1990s)  
 (12) In the search for ethical research, *we can and must look* wider than the emicist of verbal data. (1990s)

On the contrary, in single-authored abstracts, the function “State opinions” exhibits a generally upward trend with the spike occurring in the 2000s ( $p = 0.027$  for 1990s vs. 2000s), indicative of single authors’ increasing preference for representing themselves as visible agents when presenting face-threatening acts. In other words, they tend to emphasize their subjectivity when expressing opinions and elaborating arguments. As members of the soft disciplinary community where writers’ argumentative or interpretative elaboration forms the foundation of the research (Hyland, 2002b, pp. 352–353), applied linguistics writers’ essential task is to construct effective arguments or interpretations, which is to a great degree achieved by “balancing caution with commitment” (Hyland, 2001, p. 221). While making effort to show necessary respect for alternatives, writers need to simultaneously “back their views with a personal warrant where necessary” (Hyland, 2001). The personal voice in explicit claim making helps authors straightforwardly address and construct a close relationship with readers and hence tie up authors and readers as co-participants in the ongoing discourse and interlocutors engaged in a disciplinary dialogue. Furthermore, this voice could assist in the pledge of certainty as well as interpersonal assurances of conviction. Facing the growingly intense competition for publishing internationally and for indexing online in the internet era in the 21st century, single authors might realize the rising demand for commitment in their abstract construction. Therefore, irrespective of “State opinions” being the most imposing and self-assertive face-threatening act, they increasingly utilize *I* in their formulation of plausible arguments to simultaneously take responsibility for and to emphasize the uniqueness and ownership of their arguments, thereby constructing personal authority firmly founded on confidence and grip of their arguments (Hyland, 2002a). Example (13) demonstrates how the author can solicit readers’ recognition of the usefulness of “such theoretical approaches” by strongly coupling him/herself with the claim.

- (13) *I suggest* that such theoretical approaches can be useful in the development and evaluation of CALL materials and tasks. (2000s)

As the second prevalent high-stakes function, “Report results” just exhibits slight diachronic change – slightly increased in the latest co-authored abstracts but has been marginally decreasing in single-authored abstracts. Through the three decades, the dominant formulaic pattern realizing “Report results” comprises *we/I* collocating with such cognitive verbs as *find*, *conclude*, *show* and *note*, as illustrated in (14) and (15). By deploying such a formula to show results, writers declare their custody and ownership of the results. They also indicate their responsibility for and commitment to the findings. Therefore, the faint diachronic change in the incidence of “Report results” implies that applied linguists tend to explicitly front their exclusive contribution and commitment to their research findings through announcing their presence. It also suggests applied linguists’ consistent confidence in the reliability of their research and persistent willingness to directly discuss their results with readers. It serves as a rhetorical strategy for promotion.

- (14) *We note* evidence that alliteration is relatively common in lexical chunks in English. (2000s)  
 (15) *I show* that interactional practices developed in classroom role-plays were later sustained, eliminated, re-developed, or further modified in the clerkship consultations. (2010s)

A much lower incidence of the function “Propose a theory” is observed, probably due to the difficulty of constructing a new theory. The incidence of “state a hypothesis” is almost negligible in both types of abstracts.

## 5. Conclusion and future studies

Through quantitative and textual analysis of RA abstracts published in applied linguistic journals, this study has revealed that the ways authors seek to relate to their texts, acknowledge alternative opinions and establish solidarity with readers seems to display, with fluctuations, an increasing tendency to stress objectivity, factuality and informativeness through less frequent use of personal pronouns, particularly in the latest decade. Furthermore, how and when authors choose to mediate their relationship with their texts and readers is closely related to the authorship and the types of speech acts. Compared with single authors, co-authors have been intruding into their abstracts more conspicuously, particularly in the 2000s. Single authors are prone to project their author persona as individuals rather than as community members. When deploying *we* and *I*, the predominant device to represent authorial presence, applied linguists have been favoring the low-stakes discourse functions over high-stakes ones. Co-authors exhibit an overall stronger but fluctuating preference for the low-stakes function “Organize the text” to guide readers through the text and a steadily weaker preference for the function “Describe methods” to interpret what research methods they adopt. However, the predominant high-stakes function “State opinions” shows the opposite evolutionary pattern – downward and upward respectively – in co-authored and single-authored abstracts.

In academic writing, the presentation and evaluation of research methods, results and claims buttress the construction of knowledge and the projection of authorial identities (Hyland & Jiang, 2017). Whether academic texts construct knowledge persuasively and project authors’ identities appropriately is dependent on the degree that they employ rhetorical strategies that peers find convincing. The use of author-referring pronouns is one such strategy. The findings of this study reflect the differential historical change in the strategic choice of authorial pronouns by co-authors and single authors in abstract writing. Co-authors tend to engage themselves with readers in an increasingly secure and dialogical way through their personal involvement in less-threatening speech acts. Contrastively, single authors choose a more straightforward and self-confident way through explicitly projecting their exclusive ownership of claims and research results as well as their original contribution to the disciplinary community. Either way, the authors ultimately attain the goal of promoting their research and persuading readers to proceed with reading the full articles.

Although the possible reasons for the above historical changes have been discussed in this article, such discussions have been merely speculations based on the writer’s expertise. The writer’s genuine motivations or intentions behind their rhetorical choice have not been examined systematically. Therefore, further investigations into the factors underlying diachronic alteration in the presentation of authorial presence are worthwhile, particularly from the ethnographic perspective, for shedding light on authors’ intentions and motivations behind their choice of personal attributions.

Another limitation of the present study is the various number of abstracts sampled from the target journals across the different time periods. As this study focuses on the evolution of the use of first person pronouns in RA abstracts published in applied linguistics journals as a whole and a larger and complete sample generally permits more valid extrapolation of the findings to the field than a smaller one does, exhaustive sampling of all abstracts from the four journals which meet the standard set for the present research design was adopted. As a result, the number of abstracts sampled from these journals varies across all time periods. The editorial guidelines or editors’ differential beliefs about the appropriacy of personal pronouns in abstract writing of specific journals, especially those from which a larger number of abstracts have been sampled, might influence the validity of the findings to some degree. Therefore, future relevant research could take the size of samples from various journals into consideration so that more valid results could be produced. Also, diachronic examination of the use of personal pronouns in various journals may be another direction for further studies so as to explore whether there are journal-specific variations in the evolution of personal pronoun usage.

As this study corroborates previous research findings about cross-disciplinary divergences in the evolution of authorial presence realized by personal pronouns (Atkinson, 1992, 1999, pp. 1675–1975; Banks, 2017; Hyland & Jiang, 2017; Salager-Meyer, 1999), what changes might have happened in writers’ projection of their authorial presence in other (sub)disciplines remains problematic. Consequently, more relevant future studies are necessary for mapping out whether (sub)discipline-specific diachronic alterations in authorial presence exist. Additionally, this study confirms past results concerning cross-genre divergences regarding the use of authorial pronouns (Hyland, 2003) and provides further relevant evidence, at least between abstracts and articles. Therefore, diachronic comparison between various other genres regarding the representation of authorial presence can be a meaningful direction for future research so that the relationship between the genre and the development of the strategic deployment of authorial presence can be delineated.

## Author statement

Zhijun Li: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing – original draft; Writing – review & editing.

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