



# Quoted speech in linguistics research article titles: patterns of use and effects on citations

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## Abstract

This paper investigates the uses and scholarly impact of quoted/direct speech in research article titles (e.g., *"I Know I'm Generalizing but...": How Teachers' Perceptions Influence ESL Learner Placement*) across the 50 highest-listed linguistics journals according to Clarivate Analytics' *inCites Journal Citation Reports*. The aims of the study were to: (1) uncover the prevalence of titles featuring quoted speech between 1980 and 2019, (2) describe how directly reported speech is utilised structurally in article titles, and (3) investigate the effects of various patterns of use of quotations on articles' age-weighted citation rates. 640 linguistics articles with speech act titles were uncovered, occurring with an incidence of 1.8% in the dataset ( $n=36,438$ ), although their prevalence has risen significantly since 2004. Structural analysis revealed 90.9% of quotations were contained in the first segment of a compound title, serving to create an information gap (often for the purposes of provoking interest or intrigue), which is resolved in the second segment; the research article's topic. Regression analysis showed that speech act titles were significant negative determinants of articles' age-weighted citations, particularly the prevalent pattern of compound structures featuring a quotation phrased as a declarative. The length of the quotation was found to exert no significant effect, although quotations that were not marked by single or double quotation marks were found to have an especially suppressed scholarly impact.

**Keywords** Research article titles · Titlelogy · Direct speech · Linguistics

## Introduction

As the first point of contact between the author and readers, the title of a research article plays an important role in whether a paper gets retrieved and read (Hartley 2007; Li and Xu 2019; Nagano 2015; Nair and Gibbert 2016; Sahragard and Meihami 2016). Research article titles encompass two core pragmatic roles; to inform the reader of the content of the manuscript and to persuade them that it is something they need to read (Hartley 2005). This is not just important for the retrieval of published research by would-be readers, but also during initial submission to an academic journal and

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peer review, where the title may contribute to the determination of whether a paper is reviewed and/or published (Aleixandre-Benavent et al. 2014). It has been found that relatively inconsequential title writing practices, such as the inclusion of non-alphanumeric characters, can impact on an article's citations (Buter and van Raan 2011; Gnewuch and Wohlrabe 2017; Keating et al. 2019; Nair and Gibbert 2016; van Wesel et al. 2014). For these reasons, research article titles must be written carefully, with authors meticulously choosing appropriate syntactic forms that convey the unique knowledge contribution of the manuscript (Aleixandre-Benavent et al. 2014). Given that many journals place restrictions on the number of words (Haggan 2004; Wang and Bai 2007), writing a 'good' title is considered a challenging prospect by many authors of research publications (Gesuato 2008).

As 'advertisements' seeking to secure 'customers' through the attractive and informative presentation of their 'products' (Haggan 2004), research article titles may be worded to include a range of attention-grabbing stylistic cues that go beyond mere description of the study (Keating et al. 2019). These include acronyms, puns, metaphors, unconventional words, colloquial language, exclamations, and questions (Aleixandre-Benavent et al. 2014; Lockwood 2016; Sagi and Yechiam 2008). Such practices impact on how the reader interprets the title and therefore the content of the article itself, often adding emotion, judgement, humour, flippancy, confrontation, or intrigue to readers' perceptions of the article (Aleixandre-Benavent et al. 2014). Attention-grabbing stylistic cues constitute a deviation from the established norms of objectivity and parsimony in scientific writing (Sagi and Yechiam 2008), resulting in them sometimes being labelled as 'defects' or 'inaccuracies' (Aleixandre-Benavent et al. 2014). As such, their use is controversial, and may adversely impact on an article's scholarly impact, depending on the accepted discourse practices of the specific discipline (Nagano 2015; Nair and Gibbert 2016). However, eye-catching titles are more acceptable in the social sciences, particularly in linguistics, where exploring authentic language in use may be the objective of study or an importance source of evidence (i.e., in qualitative research).

One attention-grabbing stylistic cue that has gained traction in linguistics article titles is the inclusion of a directly reported speech act of a research participant (or possibly the researcher's), generated through observation, semi-structured interviewing, diaries, document research, etc. (e.g., "*I think that is a better way to teach but...*": *EFL teachers' conflicting beliefs about grammar teaching*). As with the use of reported speech in the text body itself, its use is illustrative (Terry et al. 2017), serving to encapsulate the overall contribution of the research as well as summing up the author's meta-comment on the study (Pułaczewska 2010). Quoted speech is often easy to identify in research article titles because it is explicitly marked by single or double inverted commas, and/or the quoted text is italicised. This is not always the case (*I didn't get the grade I need. Where's my solicitor?*), while the same symbols are often employed to denote unconventional words or discipline-specific concepts (*Explaining the "natural order of L2 morpheme acquisition" in English: A meta-analysis of multiple determinants*). Few informetric studies have described the patterns of use of directly reporting the speech of research participants in article titles (referred to as speech act titles) in any discipline (see Pułaczewska 2010), and none could be retrieved investigating the effects of such a stylistic cue on articles' scholarly impact. The present study seeks to address both gaps in the extant literature on research article titles.

## Literature Review

### Research Article Titles

A growing body of informetric studies has investigated corpora of research article titles across various disciplines. Much of this research encompasses description and analysis of prevalent linguistic structures, such as frequencies of particular syntactic structures (e.g., noun phrases, question forms, compounding) (Cheng et al. 2012; Gesuato 2008; Haggan 2004; Moattarian and Alibabae 2015; Nagano 2007; Soler 2007; Xiang and Li 2019; Xie 2020), sentence types (e.g., declarative, interrogative) (Cheng et al. 2012; Pearson 2020b), usages of lexicogrammatical items (e.g., *the*) (Nagano 2013; Pearson 2020a), attention-grabbing stylistic cues (Aleixandre-Benavent et al. 2014; Busch-Lauer 2000; Keating et al. 2019; Mungra 2007; Sagi and Yechiam 2008; Subotic and Mukherjee 2014), and the presence of non-alphanumeric characters (Buter and van Raan 2011; Fumani et al. 2015; Gnewuch and Wohlrabe 2017; Pearson 2020b; van Wesel et al. 2014; Wang and Bai 2007). Furthermore, out of concern over balancing the competing aims of informativeness and attractiveness (Hartley 2005), examining the length of titles (measured in characters or words) has been an on-going concern of titlelogical structural analyses (Guo et al. 2018; Letchford et al. 2015; Lewison and Hartley 2005; Li and Xu 2019; Milojević 2017; Nagano 2015; Subotic and Mukherjee 2014). An additional descriptive approach focuses on the functions of title linguistic units, often the information the author chooses to include (e.g., the topic, method, source of data, scope of the study) and in what order (Anthony 2001; Cheng et al. 2012; Li and Xu 2019; Pearson 2020b; Wang and Bai 2007). Cross-disciplinary research indicates the structural and functional patterning of research article titles varies significantly (Haggan 2004; Milojević 2017; Moattarian and Alibabae 2015; Nagano 2015; Soler 2007), having arisen through habit and tradition, and not necessarily being fixed in time.

Descriptive studies of research article titles have yielded insights into how authors of linguistics papers structure their titles (often relative to other disciplines). Earlier studies found that linguistics titles tend to be short (7.9–8.8 words) compared to other fields (Haggan 2004; Soler 2007). Yet more recent investigations have shown authors are disposed towards longer, more informative titles (Cheng et al. 2012; Moattarian and Alibabae 2015; Pearson 2020b). Particularly prevalent are compound titles featuring a first segment containing the topic, followed by the scope of the research, the method, or additional description (Cheng et al. 2012; Moattarian and Alibabae 2015; Pearson 2020b). Titles that load information linearly through pre- and post-modified nouns into a concise nominal title are also popular (Cheng et al. 2012; Moattarian and Alibabae 2015; Pearson 2020b; Soler 2007). Linguistics has been targeted for descriptive studies of research article titles for a number of reasons. Since structural and functional analysis of units of language are a key concern of the discipline (notably in the sub-disciplines of syntax, pragmatics, corpus linguistics, and systemic functional linguistics), it is not surprising that there is interest in how language structures and functions are used to present research. Secondly, the discipline's multi-disciplinary nature – with notable sub-strands including sociolinguistics, applied linguistics, psycholinguistics, and cognitive linguistics (Arik 2015) – seems to reflect contemporary conceptions of the social sciences more broadly (Lei and Liao 2017), resulting in its selection in cross-disciplinary titlelogical research (see Haggan 2004; Moattarian and Alibabae 2015; Soler 2007; Xie 2020).

A number of informetric research article title studies beyond the field of linguistics adopt a normative perspective; that is, by identifying certain structural or functional characteristics that correlate with scholarly impact, authors can adopt written practices to enhance the visibility, appreciation, or attention given to their published work (Nair and Gibbert 2016), with real world consequences for their academic careers (Aksnes et al. 2019; Bornmann et al. 2008). An important characteristic of titles featuring directly reported speech is that the presence of the quotation may result in a lengthy title. Regression analyses using a value derived from papers' citations have shown that shorter titles across a variety of disciplines tend to gain more citations (Gnewuch and Wohlrabe 2017; Jamali and Nikzad 2011; Letchford et al. 2015; Paiva et al. 2012; Subotic and Mukherjee 2014), suggesting some readers value conciseness over loading a title with information about the study (methods, sources of data, findings). The results are not conclusive, however, with other studies finding a positive (Jacques and Sebire 2010; Milojević 2017) or no relationship (Nair and Gibbert 2016; Pearson 2020b), perhaps because other readers appreciate the inclusion of such information when deciding to progress to the article's abstract.

Another notable feature of speech act titles is the frequent explicit signposting of the quotation through single or double quotation marks, two among 29 non-alphanumeric characters employed in research article titles (Buter and van Raan 2011). Non-alphanumeric characters can contribute to increasing the length and complexity of titles, notably by compounding them into two (or even three) segments using a colon, question mark, or full-stop. Significant negative effects of non-alphanumeric characters on citations in various fields are indicated in the literature (Jamali and Nikzad 2011; Michelson 1994; Nair and Gibbert 2016; Paiva et al. 2012; Pearson 2020b), although not consistently (Buter and van Raan 2011; Gnewuch and Wohlrabe 2017; Jacques and Sebire 2010). A plausible explanation for these discrepancies is that the scholarly impact of this titular characteristic is mediated by a range of factors, including disciplinary expectations (Milojević 2017; Nair and Gibbert 2016; van Wesel et al. 2014), journal prestige (Chokshi et al. 2016; Keating et al. 2019), and publication date (Guo et al. 2018). Alternatively, the reason could be methodological, with less externally valid studies analysing the effects of titular conventions outside of the context of variables intrinsic to the quality of the study (Nair and Gibbert 2016), e.g., source publication, reputation of the authors, methodology (Tahamtan et al. 2016).

The extant body of literature investigating the scholarly impact of attention-grabbing stylistic cues indicates authors should be cautious, owing to a subtle bias that exists within many disciplines against rhetorical devices that go beyond plain description of an article's content (Keating et al. 2019). At best, attention-grabbers, such as humour (Subotic and Mukherjee 2014) and novelty words (Stremersch et al. 2007) do not seem to reward authors with additional citations, while at worst, it has been found the use of metaphor and alliteration (Keating et al. 2019), amusement (Sagi and Yechiam 2008), word play (Lockwood 2016), and obscure words (Thelwall 2017) may actually harm citation counts. Such stylistic cues could undermine authorial credibility in higher-ranking journals (Sagi and Yechiam 2008), being indicative of weaker methods, limited results, or unconvincing arguments (Keating et al. 2019). As with title length and the presence of non-alphanumeric characters, the effects on scholarly impact are likely mediated by the prestige of the journal and date of publication. This may not be a permanent state-of-affairs. The increasing dependence on electronic retrieval of research means readers likely depend more on keywords and article abstracts when making judgements of whether to retrieve an article. This might explain the growing diversification in how research article titles are presented to

readers syntactically (Li and Xu 2019; Sahragard and Meihami 2016; Xiang and Li 2019), perhaps resulting in greater tolerance for unorthodox stylistic cues.

### Quoted Speech in Research Article Titles

There are a number of notable syntactic patterns that characterise research participants' directly reported speech in article titles. Quoted speech may encompass a full sentence utterance, for example, "*You're not welcome here*": *A grounded theory of family distancing*, or it can appear as noun, adverbial, or adjectival phrase fragment ("*A wise decision*": *Pre-modification of discourse-organising nouns in L2 writing*). A notable prevalent feature is its use in compound structures, where the title is divided into two segments separated by a non-alphanumeric character, often a colon (Cheng et al. 2012; Lewison and Hartley 2005; van Wesel et al. 2014). The quotation usually acts as a cataphoric reference in the first segment of the compound, serving to create an information gap for the purposes of provoking interest, intrigue, or contemplation from the reader, who is satiated by the second segment where the research topic/concern is elaborated (Pułaczewska 2010). Rarely, the quotation encompasses the second segment (*The role of Xhosa in a South African prison: 'The situation is leading you'*), performing an anaphoric referential role. Compared with linear full sentence or nominal constructions, the juxtaposition of information inherent in compounded titles containing directly reported speech creates an inefficiency in information retrieval (Baicchi 2004), which may be speculated to harm an article's scholarly impact, depending on disciplinary conventions.

The relationship between the speech act and topic segment in compound titles can be conceived in terms of contiguity. Contiguity denotes the use of a quotation to exemplify a genre or discourse of spoken or written language, explicitly or implicitly delineated in the topic segment of the title, for example, *I'm sorry I said that: Apologies in young children's discourse* and *'Use the active voice whenever possible': The impact of style guidelines in medical journals*. The quotation itself is usually not critical to understanding the phenomenon being investigated, since the research is 'explained' in the keywords presented in the topic segment (Pułaczewska 2010). However, in non-contiguous structures the topic segment either does not contain an expression that identifies the genre or discourse of the speech act ("*This is description, not film analysis*": *Semiotically mediating genre, conceptual formations, and text development*) or contains a referential expression whose relation to the speech act is not specified or cannot be inferred (*Tell me something I don't know: Decision makers' preference for advisors with unshared information*) (Pułaczewska 2010). Non-contiguous structures may place greater cognitive demands on the reader and could thus constitute a risky approach to title writing.

Incorporating directly reported speech into a title also serves a number of semantic purposes that allow the reader to infer the epistemological and methodological approaches of the researcher. By emphasising the authentic utterances of participants, likely garnered through interviewing or observational research, the author is signposting their study is underscored by the interpretive tradition, where real-world phenomena are studied in terms of the meanings attributed to them by people in context, realised in the spoken and written words they utilise (Schwartz-Shea and Yanow 2012). It may be considered that speech act titles privilege a single research participant, by placing her/his words at the forefront of a research article. Nevertheless, participants may have little say in their words being used so prominently, while their utterances might not reflect the perspectives of other individuals in the study. Additionally, it must be acknowledged that not all quotations are genuine

participant utterances. They may have been concocted by researchers, constituting the author's idealised conception of what was said (Pułaczewska 2010).

No empirical research on the scholarly impact (i.e., the number of citations) of research article titles that feature directly reported speech versus those that do not could be uncovered in the literature review for this study. In the absence of studies on scholarly impact, it is worth considering the social influence of speech act titles. Pułaczewska (2010) asked two groups of graduate students ( $n=18$  and  $n=21$ ) at a Polish university to select titles among a selection from the *Journal of Pragmatics* to discuss in seminars. She uncovered students' preference for speech act titles, although this was in part due to a predilection towards compound structures. While such titles were found to be memorable, this did not mean the participants could recall the topics of the articles featuring speech act titles.

## Paper Aims

This study is undertaken to address the gap in research concerning the structural patterns of use of directly reported speech in linguistics research article titles and the effects on scholarly impact of their inclusion. The study is guided by the following three research questions:

1. Have the frequencies of speech act quotations in linguistics research article titles changed between 1980 and 2019?
2. What are the structural attributes of speech act titles in linguistics research articles?
3. What effects does directly reported speech have on the age-weighted citation rates of article titles that feature this stylistic cue, versus ones that do not?

## Method

The present study utilises a bespoke corpus of research article titles from 50 high-ranking linguistics journals across the forty-year time period, 1980–2019. To answer research question 1, frequencies and distributions of research article titles with and without speech act quotations are compared across six five-year intervals from 1980 to 2019. Following this, linguistics research articles containing directly reported speech are coded and analysed structurally according to six key variables, outlined in Table 1. To address the third aim, regression analysis is undertaken to analyse the effects on citations of research articles featuring speech act titles and the six variables investigated in research question 2.

## Data Retrieval

It was determined that a broad range of contemporary high-performing linguistics journals would constitute the sources of research article titles analysed in the present study (see “Appendix” for a list). This was to ensure the results reflected the practices of cutting-edge scholarship in the discipline. As such, the top 50 publications listed by Clarivate Analytics' *inCites Journal Citation Reports* 'journals by rank' function for 2019 in the subject category of 'linguistics' were retrieved. Each publication name was searched in SCOPUS using the 'source title' function, which brings up all related content held for the respective publications.

The search results were narrowed according to three criteria. To ensure the dataset comprised only the titles of full-length research articles and not other genres of academic texts

**Table 1** Speech act variables investigated in the present study

Variable	Values	Example
Presence of a direct speech		
Quotation length in words		
Title syntactic structure	Compound (first segment) Compound (second segment)	'You're still sick!' Framing, footing, and participation in children's medical play Language ideologies in a Danish company with English as a corporate language: 'it has to be English'
Quotation syntactic pattern	Full sentence Clausal-declarative Clausal-interrogative Clausal-imperative/ exclamative Phrasal	You did say 'oral interactive discourse'? 'Mental workouts for couch potatoes': Executive function variation among Spanish–English bilingual young adults Why does it hurt?: The perceived causes of hurt feelings 'You look terrific!' Social evaluation and relationships in online compliments A mouse with a roof? effects of phonological neighbors on processing of words in sentences in a non-native language
Contiguity	Non-English Contiguous Non-contiguous N/A (full sentence)	Translingual family repertoires: 'no, Morci is itaitai panzita, amor' Do u txt? Event-related potentials to semantic anomalies in standard and texted English This isn't the BBC: Colonialism in New Zealand English
Marking	Double quotation marks Single quotation marks	See full sentence example "Are you losing your culture?": Poetics, indexicality and Asian American identity 'Can you talk me through your argument'? Features of dialogic interaction in academic writing tutorials
	Unmarked	I don't know it but I like you: The influence of nonconscious affect on person perception

(e.g., conference presentations, reviews), the results were filtered to include only entries marked as ‘articles’ by SCOPUS. Secondly, the list of retrieved sources was limited to those published between 1980 and 2019. The cut-off year of 1980 was selected since not all linguistics journals published articles before this date, and those that did tended to mark announcements, editors’ notes, calls for papers, and awards as ‘articles’ in early publications. Such entries were removed from the 1980–2019 data during cleaning. Finally, owing to limitations in SCOPUS, no more than 2000 sources were retrieved for each publication counting backwards from 2019. This only affected the data retrieved from the high-volume publication *Brain and Language*, whose allocation was utilised in studies published between 2000–2019. Additionally, data from 1989–1999 for the journal *ReCALL* were excluded since it was not possible to automatically filter out the many software reviews from the search results. Data for each article, including its author(s), title, year of publication, starting page, ending page, and citation count were retrieved from SCOPUS using the ‘export to CSV’ function. The resulting dataset totalled 36,438 research articles and were saved as an Excel file for coding.

## Data Coding and Analysis

**Coding research article titles** Identifying direct speech quotations in research article titles was not a straightforward task. The first step involved searching the dataset for instances of text contained within single or double quotation marks, which were carefully read to ensure they encompassed directly reported speech. Individual words or phrases that were located within single or double quotation marks that did not encompass quoted speech were ignored, as well as a number of instances where quotation marks were used to denote peculiar terms or phrases used in specialised ways (e.g., *The "sense boost" to dative priming: Evidence for sense-specific verb-structure links*). The use of rhetorical questions (*Where is the bilingual advantage in task-switching?*) were not considered speech act quotations, nor when structures were exemplified to illuminate a specific linguistic structure that was the focus of the inquiry (*"Have fun while you can," "You're only as old as you feel," and "Don't ever get old!": An examination of memorable messages about aging*). Since speech act quotations are not always marked in titles by the use of inverted commas, the library of titles was read and re-read to document occurrences of unmarked quotations.

To answer research question 2, six attributes of speech act titles were coded. First, the length of the quotation was the only variable automatically coded (using an Excel formula that calculated the number of words in each quotation). Next, the syntactic structures of titles featuring directly reported speech were manually coded by the researcher according to whether they were a compound (and if so, whether the quotation featured in the first or second segment) or full sentence construction. Following this, the syntactic pattern of the quotation was coded as clausal (and within this variable, declarative, interrogative, or imperative/exclamative), phrasal, or non-English. For the fourth variable, the constituent elements of compound structures were compared to identify whether they encompassed a contiguous or non-contiguous relationship. Finally, whether the quotation was marked by single/double quotation marks or neither was recorded in the spreadsheet. Ten per cent of titles featuring speech act quotations ( $n=64$ ) were subject to intra-rater reliability analysis to ensure consistency of coding. The four manually coded variables were recoded blind for these 64 titles, with the values compared to the originals by Excel formulae. The overall outcome of 0.95 indicated a high degree of intra-rater agreement, with most inconsistencies exhibited in the variable *contiguity*. This was because in some cases it was possible to infer the genre of the spoken or written quoted



utterance, creating ambiguity. Discrepancies were attended to and the contiguity variable re-checked in the wider dataset.

**Regression analysis** To measure the effects on research article citations of speech act titles and the six attributes investigated in research question 2, stepwise regression analysis was undertaken (Nair and Gibbert 2016; Paiva et al. 2012). Initially, the attributes of speech act titles were converted into dummy variables. For example, in coding the variable *speech act quotation*, cases were marked with a '1' if the title contained a quotation and '0' if not. This procedure was applied to the categorical variables investigated for research question 2 (*title syntactic structure*, *quotation syntactic pattern*, *contiguity*, and *non-alphanumeric marking*). The exact values (number of words) were utilised for the variable *quotation length*, with non-speech act titles left blank. For categorical variables with more than one value, one dummy variable was omitted to prevent perfect multicollinearity. In the case of *title syntactic structure*, this was *full sentence structure*, for *quotation syntactic pattern* it was the *non-English* pattern, for *contiguity*, non-compound structures that did not feature contiguity (*N/A*), and finally quotations featuring single apostrophes. The effects of the variables were investigated in combination with three control variables (see below) across six separate regression models (a-e). High levels of multicollinearity between certain variables prevented a meaningful integrated model.

**Measure of citations** Raw citation counts for the 36,438 research articles were downloaded from SCOPUS as one of the papers' background characteristics. Citation counts were automatically computed into an age-weighted citation rate (AWCR) variable, calculated by dividing the articles' total number of citations with the number of years since publication (with 2019 being denoted as one year old, 2018 two, etc.). This measure of citation frequency was adopted in order to account for scholarly impact over the whole course of a publication's life (versus time window measures). However, one downside of the age-weighted citation rate is that it is punitive towards newer studies. To reduce this impact, articles published in 2018 and 2019 were excluded from the regression analysis.

**Control variables** Features of a research article's title are generally considered to have a superficial impact on citations in comparison to paper- (e.g., quality, novelty, design and methods), journal- (impact factor, coverage, language), and author-related factors (reputation, affiliated institution, country) (Tahamtan et al. 2016; van Wesel et al. 2014). In order to obtain more accurate indications of the effects of titular characteristics, three control variables were incorporated into the regression models. These were the journal's impact factor, the article's age in years, and the length of the paper in pages. Impact factor values for 2019 were extracted from Clarivate Analytics as the journal's performance in this year determined their inclusion in the study. Formulae were employed to calculate the age of an article (from the year data) and the length (end page minus start page). All three controls were found to be statistically significant predictors of citations, with impact factor and article length producing strong positive effects on citations ( $\beta=0.11$ ,  $p<0.001$  and  $\beta=0.13$ ,  $p<0.001$  respectively). Age was a significant negative determiner ( $\beta=-0.13$ ,  $p<0.001$ ), probably because citations peak in the first few years after publication before falling steadily (Tahamtan et al. 2016).

## Results

### Prevalence of Quoted Speech in Linguistics Titles

Direct speech was found to be a rare phenomenon in the 36,438 linguistics research article titles. 640 instances were identified, accounting for just 1.8% of the dataset. As shown

**Table 2** Instances of speech act quotations in linguistics research articles

Time interval	Research article titles		Speech act titles		
	(n)	% of article total	(n)	% of article total	% of speech act title total
2015–19	10,044	27.6%	226	2.3%	35.3%
2010–14	8028	22.0%	143	1.8%	22.3%
2005–09	5574	15.3%	101	1.8%	15.8%
2000–04	3714	10.2%	51	1.4%	8.0%
1995–99	2856	7.8%	31	1.1%	4.8%
1990–94	2379	6.5%	35	1.5%	5.5%
1985–89	2363	6.5%	33	1.4%	5.2%
1980–84	1480	4.1%	20	1.4%	3.1%

in Table 2, speech act titles occurred far from linearly across the forty years of literature, and increased across all five-year intervals after 1980. Prior to the turn of the millennium, speech act titles were very rare, with no more than 35 instances per each five-year interval. This accounted for 1.5% or less of all research article titles investigated. It can be seen their use significantly expanded in 2005–2009 to 1.8% of all titles and again in 2015–2019 to 2.3%. Reinforcing speech act quotations as a relatively contemporaneous title writing convention in linguistics is the finding that a substantial 35.3% of instances occurred in the 2015–2019 timeframe. It must also be underscored that their distribution across the 50 academic journals was not uniform, as shown in the appendix. It is apparent that five journals (totalling 1888 articles) featured no uncovered speech act titles. In contrast, a further five; *Language in Society* (57), *Language and Education* (42), *TESOL Quarterly* (35), *Applied Linguistics* (32), and the *Journal of English for Academic Purposes* (30) accounted for 30.6% of all speech act titles.

### Structural Analysis of Speech Act Titles

When analysed separately, quotations were found to contain an average of 11.6 words (S.D. = 3.02). While there were some high outliers, including one instance of 26 words, 86.7% of quotations featured 10 words or fewer. The quotations themselves contributed 52.6% of a title's length on average. A range of distinct structural trends were evinced in authors' usage of directly reported speech in linguistics research article titles, outlined in Table 3. In an overwhelming 96.3% of instances, the quotation constituted one part of a compound structure with mostly two segments, marked by a colon, question mark, exclamation mark, or other non-alphanumeric character. Among this pattern, 94.5% of speech acts occurred in the first segment, performing the cataphoric referential role of creating an information deficit which is addressed in the second segment by the topic of the research (Pułaczewska 2010). Rarely did direct speech perform the anaphoric role as the second component (5.5%) or wholly constitute the title in the form of a full sentence (3.8%).

**Table 3** Structural attributes of linguistics research article titles featuring speech act quotations

Variable	Values (and sub-values)	Freq	%
Title syntactic structure	Compound structure	616	96.3%
	First segment	582	94.5%
	Second segment	34	5.5%
	Full sentence structure*	24	3.8%
Quotation syntactic pattern	Clausal	515	80.5%
	Declarative	319	61.9%
	Interrogative	138	26.8%
	Imperative	58	11.3%
	Phrasal	88	13.8%
	Non-English*	37	5.8%
Contiguity	Contiguous	401	62.7%
	Non-contiguous	214	33.4%
	N/A (full sentence structure)*	25	3.9%
Non-alpha-numeric marking	Double quotation marks	233	36.4%
	Single quotation marks*	175	27.3%
	Unmarked	232	36.3%

\*Omitted from the regression

In terms of quotation syntactic patterning, there was a clear preference for clausal utterances in the selected quotations utilised by authors (80.5%) since clausal patterns, where the subject is speaking or writing from a personal perspective, coheres with the aim of imbuing a title with greater individuality and humanity. Quotations conveyed as a declarative utterance constituted 61.9% of all clausal constructions, followed by interrogative patterns (26.8%). Not surprisingly, the least common clausal pattern was the imperative/exclamative (11.3%), chosen for its snappy, attention-grabbing impact on the reader. In contrast, phrasal patterns constituted only 13.8% of speech act titles, often contributing ambiguity to their interpretation (e.g., *'The voices, the voices': Creativity in online conversation*), perhaps in the hope of inspiring readers to retrieve the article to solve the mystery. 5.8% of speech acts were not written in English (even though the other title segment was) and were thus not coded for their syntactic pattern.

As shown in Table 3, 62.7% of compound speech act titles featured contiguity between the quotation in one segment and the research topic in the other. Writers utilising contiguous compound titles tended to explicitly state the genre of the speech act, thereby employing the quotation to exemplify the discourse being investigated (*'Interesting post, but I disagree': Social presence and antisocial behaviour in academic weblogs*). More efficient contiguous structures involved the author providing structural (syntactic, lexical, phonological), semantic (politeness, function), and other relevant clues (speaker, location, text-type) (Pułaczewska 2010), particularly in the topic segment (e.g., *'Smuggling the vernacular into the classroom': Conflicts and tensions in classroom codeswitching in township/*

*rural schools in South Africa*). Less efficient contiguous titles require the reader to presume that the speech act originated from a spoken encounter of some kind (*Tower, am I cleared to land?: Problematic communication in aviation discourse*). Speech acts in non-contiguous titles (33.4%) do not serve to exemplify a spoken or written genre. Instead, the relationship between the two components is not syntactically explicit: “*The Future Is Not What It Used To Be*”: *Gender, History, and Communication Studies*. The resulting ambiguity may constitute a deliberate ploy to arouse the reader’s curiosity. Concerning marking quotations with non-alphanumeric characters, most speech acts were contained within either double (36.4%) or single quotation marks (27.3%). A notable 36.3% of speech act titles featured no punctuation symbols, although it cannot be ruled out some of these may have been formatted using italics, signposting that was lost once the titles had been listed in SCOPUS.

### Effects of Speech Act Titles on Citations

Table 4 illustrates the outcomes of the regression models. Model a outlines the effects of direct speech quotations (along with the control variables), model b the effect of quotation length on the AWCR of speech act titles, and models c-f the impact of the various dummy variables within the four categorical variables (*title syntactic structure, quotation syntactic pattern, contiguity, and non-alphanumeric marking*) and the controls. Notably, study titles that included or encompassed quoted speech were found to be cited significantly less frequently than those that featured alternative styles or patterns ( $\beta = -0.02, p < 0.001$ ). Since 90.9% of titles featuring quotations incorporated them as the first segment of a compound structure, it is not surprising that this syntactic structure was also a statistically significant negative determinant of AWCRs ( $\beta = -0.02, p < 0.001$ ), shown in model c. On the other hand, according to model b, there appeared to be no significant effect on the citations of the 640 articles alone that featured speech acts depending on the length of quotation in words ( $\beta = 0.01, p = 0.91$ ).

Among the three clausal patterns, quotations presented as declarative utterances were found to be statistically significant negative determinants of age-weighted citation rates ( $\beta = -0.01, p = 0.01$ ). In contrast, those phrased as interrogatives and imperatives/exclamatives did not exert as notable a negative influence on citations, with beta values lower than  $-0.01$  that were statistically insignificant. Additionally, model e demonstrates that it did not make a difference whether compound titles featuring a speech act quotation established a contiguous or non-contiguous information gap across the segments. Both titular characteristics exerted a significant negative effect on age-weighted citations ( $\beta = -0.01, p = 0.01$  and  $\beta = -0.01, p = 0.02$  respectively). Finally, a notable finding stemmed from whether a quotation was marked by non-alphanumeric characters or not. Those quotations that were unmarked were found to be significantly associated with lower AWCRs ( $\beta = -0.01, p = 0.002$ ).

**Table 4** Regression model results

Category	Variables	Model (a)			Model (b)			Model (c)		
		Beta	<i>p</i> -value	Std. Error	Beta	<i>p</i> -value	Std. Error	Beta	<i>p</i> -value	Std. Error
Controls	Impact factor	0.11	0.00	0.03	0.06	0.16	0.12	0.11	0.00	0.03
	Age	-0.13	0.00	0.00	-0.20	0.00	0.01	-0.13	0.00	0.00
	Length	0.13	0.00	0.00	0.09	0.03	0.01	0.13	0.00	0.00
	Direct speech quotation	-0.02	0.00	0.20						
Direct speech quotation length				0.01	0.91	0.03				
Title syntactic structure	Compound structure									
	First segment							-0.02	0.00	0.21
	Second segment							0.00	0.91	0.84
	<i>R</i> squared	0.05			0.05			0.05		
<i>F</i>	378.65			7.57			302.73			
Category	Variables	Model (d)			Model (e)			Model (f)		
		Beta	<i>p</i> -value	Std. Error	Beta	<i>p</i> -value	Std. Error	Beta	<i>p</i> -value	Std. Error
Controls	Impact factor	0.11	0.00	0.03	0.11	0.00	0.03	0.11	0.00	0.03
	Age	-0.13	0.00	0.00	-0.13	0.00	0.00	-0.13	0.00	0.00
	Length	0.13	0.00	0.00	0.13	0.00	0.00	0.13	0.00	0.00
	Quotation syntactic pattern									
Contiguity	Clausal	-0.01	0.01	0.28						
	Declarative	-0.01	0.24	0.41						
	Interrogative	-0.01	0.14	0.73						
	Imperative/exclamative	-0.01	0.22	0.52						
Contiguity	Phrasal	-0.01	0.01	0.25						
	Contiguous				-0.01	0.01	0.25			
	Non-contiguous				-0.01	0.02	0.33			

Table 4 (continued)

Category	Variables	Model (d)		Model (e)		Model (f)				
		Beta	<i>p</i> -value	Std. Error	Beta	<i>p</i> -value	Std. Error	Beta	<i>p</i> -value	Std. Error
Non-alphanumeric marking	Double quotation marks							-0.01	0.22	0.32
	Unmarked							-0.02	0.00	0.32
	<i>R</i> squared	0.05			0.05			0.05		
	<i>F</i>	216.15			302.75			302.49		

## Discussion

Directly reported speech in a research article title is not a new phenomenon in linguistics, with four instances among the highest-ranking linguistics journals (circa-2019) in the earliest year of the dataset, 1980. Nevertheless, the present study identified a clear trend towards increasing usage across the six five-year segments. The first two decades of the timeframe constituted a mere 18.6% of speech act titles. Only after 2000 are notable increases present, particularly the 17.4% rise in prevalence from 2000 to 2014. Interestingly, the most recent time period 2015–2019 accounts for a substantial 35.3% of all incidences of speech act titles. This suggests that titles featuring quoted speech are growing in acceptance in linguistics, paralleling the trend of diversification in the structuring of research article titles exhibited over recent decades (Li and Xu 2019; Sahragard and Meihami 2016; Xiang and Li 2019). Alternatively, it demonstrates authors' growing concerns with making their articles stand out in an increasingly crowded field (Fox and Burns 2015; Kueffer and Larson 2014; Letchford et al. 2015), indicated by the marked rises in quantities of linguistics articles across the time period in Table 2. It also reflects the increasing prevalence and credibility of qualitative research in the discipline (Duff 2008; Richards 2006), which by its nature utilises the exact words of language users as sources of evidence or constitutes the subject of the inquiry itself.

It must be underscored that the prevalence of speech act titles in high-ranking linguistics journals is still very low, averaging just 1.8% of the whole dataset. Interestingly, this figure corresponds to the 1.8% prevalence uncovered in Pułaczewska's (2010) qualitative analysis of speech act titles sourced from *The Linguist List*, even though the author's sample of titles was significantly smaller (2861) and limited to the selected sub-discipline of pragmatics. In the present study, five journals were discovered to have published no articles featuring a speech act title between 1980 and 2019, which was perhaps an outcome of the peer review process or owing to journal/editorial standards (Gesuato 2008; Sahragard and Meihami 2016). While the frequency of speech act titles increased to 2.3% in 2015–2019, it is apparent they still constitute a rare writing convention in linguistics research. This may be because, like other unorthodox stylistic cues, many scholars are cautious to adopt syntactic strategies that might go against published guidance that emphasises parsimony and lack of emotion (Alexandre-Benavent et al. 2014), or out of fear such practices could undermine an article's credibility.

Certain structural patterns emerged in authors' usage of directly reported speech in linguistics research article titles. They were found to be overwhelmingly composite of compound titles (96.3%), mostly being situated in the first segment (90.9%), e.g., "*She Needs to Be Shy!*": *Gender, Culture, and Nonparticipation Among Saudi Arabian Female Students*. By utilising a quotation in this way, the author is attempting to engage the reader interpersonally (Nagano 2007), inviting them to employ their subject matter expertise and interest in the issue to follow the writer's response to the information gap created (Pułaczewska 2010). In contiguous titles (62.7%), this information gap constitutes the reader not knowing who said these words, in what context, and/or why. A non-contiguous title (33.4%) adds further complexity to interpreting the speech act since its relationship to the research topic is less clear. These patterns constitute a stylistic cue that goes beyond the mere description of an article's content (Keating et al. 2019). Instead, the emphasis on participants' thoughts, feelings, or experiences through frequent clausal (80.5%) and declarative (49.8%) speech acts constitutes an effort to inject a sense of authenticity and humanity into how the study is presented to the reader. Such personalised cues tend not to be present in nominal titles

that feature extensive pre- or post-modification of head nouns. Less commonly, clausal constructions are phrased interrogatively (21.6%), enticing the reader to retrieve the article to understand how the participants' query was responded to, or how the reader her/himself would respond. Finally, the small number of exclamative speech acts (9.1%) evince a pre-dilection towards deliberate attention-grabbing (Aleixandre-Benavent et al. 2014; Keating et al. 2019) or frivolity (Fox and Burns 2015).

The present study found that the usage of a quotation in a linguistics research article title in a high-ranking journal, particularly when combined with the research topic in a compound construction, exerted a significant negative effect on the paper's age-weighted citation rate. As such, this paper joins a growing list of studies that conclude titles which incorporate rhetorical devices that do more than parsimoniously describe the study face a possibly attenuated scholarly impact (Keating et al. 2019; Lockwood 2016; Sagi and Yechiam 2008). This may be because of how readers of research article titles perceive such stylistic cues. As a creative and whimsical rhetorical feature, quoted speech may harm the credibility of the author (Sagi and Yechiam 2008), being perceived as a gimmick to engage the reader (Ball 2009) or as indicative of low paper quality (Keating et al. 2019; Sagi and Yechiam 2008). Alternatively, since such titles nearly always feature a non-alphanumeric character (i.e., inverted commas to mark the quotation and/or a colon, full-stop or question mark to compound the structure), they create complexity for readers to understand the nature of the study (Nair and Gibbert 2016; Paiva et al. 2012). Another explanation is that an article headlined by a research participant's authentic language in use might be interpreted as 'soft' (Richards 2006), because it signals that the researcher is addressing the topic from the interpretive tradition. It was found speech act titles featuring the quotation phrased as a question performed slightly better. This may be because, as with interrogative patterns in research article titles more generally, the stated question piques the interest of the reader (Gnewuch and Wohlrabe 2017), encouraging them to retrieve the article to find out the researcher's response to the line of inquiry (Hyland 2002).

There are also reasons unique to research article titles featuring direct speech that may explain the attenuated scholarly impact. For speech act titles where the quotation is contained in the initial segment, the information gap created places cognitive demands on readers to decode the potentially ambiguous relationship between the quotation and the topic (Pułaczewska 2010). With an overflow of research information and time pressures to complete a project (Buter and van Raan 2011; Jacques and Sebire 2010; Letchford et al. 2015; Sahragard and Meihami 2016), many readers may have limited tolerance for literary creativity or ambiguity (Aleixandre-Benavent et al. 2014) when browsing dozens of article titles. Additionally, with 52.6% of a speech act title comprising the quotation itself, such a pattern inevitably omits important facets of the research expected by some readers, such as the findings, methodology, scope of the study, and source of the data. It may also compromise the ability of the author to include keywords (Sagi and Yechiam 2008). These omissions may depress scholarly impact through harming the visibility and retrievability of such articles in popular research article indices (Aleixandre-Benavent et al. 2014). Alternatively, the impact could be perceptual, with the absence of keywords or expected characteristics of the study dissuading readers, who seek to interpret the nature and relevance of the study, from persevering with the article.

It may be speculated that the scholarly impact of research articles featuring direct speech in their titles may have suffered due to such titles' extended lengths, a finding uncovered in prior titleological studies in non-linguistics disciplines (Gnewuch and Wohlrabe 2017; Jamali and Nikzad 2011; Letchford et al. 2015; Paiva et al. 2012; Subotic and Mukherjee 2014). This analysis revealed that the average length of titles featuring speech acts was



11.6 words, of which, the mean length of quotations was 6.1 words. This is nearly double the length of linguistics titles uncovered in previous studies (Haggan 2004; Soler 2007), although the corpus of titles in the present study was more comprehensive. Interestingly, the average length of non-speech act titles in the present study's dataset was only slightly shorter, at 11.2 words (a figure that coheres with Xie's (2020) study). This suggests the attenuation of scholarly impact has arisen not from such titles being considered 'too long' but perhaps for perceptual or retrievability reasons. Additionally, it was found that the length of the quotation, measured in words, exerted no significant effect on AWCs. This might be because the detrimental complexity of longer quotations is cancelled out by the harmful vagueness of shorter phrasal speech acts.

It was further uncovered that research article titles that did not mark direct speech with either single or double quotation marks suffered noticeably in terms of scholarly impact. This is not an unexpected finding since ambiguity concerning whether titular text indeed comprises directly reported speech may confuse the reader. Additionally, the lack of non-alphanumeric marking risks the reader possibly conflating researcher and participant voices, especially if scanning through a long list of titles. However, this finding must be interpreted cautiously. One reason is the choice of titular formatting, i.e., whether and which symbols to employ may not belong to the author, instead being addressed during the peer review process or falling under editorial standards (Subotic and Mukherjee 2014). It must also be acknowledged that the journal may have opted to signal a section of title text as directly reported speech through italicisation, textual formatting that is lost when titles are indexed in SCOPUS.

## Conclusions

The present study is bound by a number of limitations. First, the findings reflect the impact of speech act titles in high-ranking linguistics journals only, where there is likely to be less tolerance for stylistic cues that may be interpreted as frivolous or gimmicky (Aleixandre-Benavent et al. 2014; Keating et al. 2019). It is plausible that, had research article titles from lower-ranking journals been investigated, the results would have differed. Additionally, publication date is a probable mediating factor on citation counts (Guo et al. 2018). It is not inconceivable that, as a result of the growing use (and acceptance) of speech act titles, if the study is replicated in a decade, the results may be quite different. Methodologically, high multicollinearity across several dummy variables (notably, *presence of a direct speech quotation*, *compound first segment title structure*, *clausal declarative quotation syntactic pattern*, and *contiguous relationship*) meant that it was not possible to combine them into an integrated model to examine their collective impact on the age-weighted citation rate. Finally, citations themselves are crude measures of an article's impact (Zhu et al. 2015), and do not provide insights into a paper's retrieval rate or the reader's perceptions of the study's value. Thus, the operationalisation of scholarly impact in the present study should be interpreted cautiously.

Descriptive analysis revealed that speech act titles are not a common occurrence across linguistics research publications, present in just 1.8% of articles from Clarivate Analytics' 50 highest-ranked linguistics journals between 1980 and 2019. In the last 20 years, instances of speech act titles have increased significantly, with the time period 2015–19 constituting 35.3% of all such titles since 1980. However, the regression analysis indicates that it may not be in the best interests of authors to employ speech act quotations in a

paper's title. Their presence particularly in a compound structure with a fronted quotation was a strongly significant ( $p=0.001$ ) negative predictor of age-weighted citation rates. It is possible this is because speech act titles harm the retrievability of the respective article, through compromising the ability of the author to include keywords or characteristics of the study that are often present (scope of study, source of data, methodology). The issue may also be perceptual. The taxing information gap (Pułaczewska 2010) may confuse or irritate the reader. Alternatively, speech act titles may be perceived as indicative of lower quality or 'soft' research (Keating et al. 2019; Sagi and Yechiam 2008), or as frivolity or a gimmick (Ball 2009; Fox and Burns 2015). Other dummy variables that featured a significant negative effect on AWCs were quotations conveyed as a declarative utterance, both contiguous and non-contiguous patterns, and the absence of non-alphanumeric characters to visibly mark the text as a quotation. Future studies are recommended to test for replication of the findings in other social science disciplines that feature speech act titles. Additionally, explorations of the social impact of speech act titles may help reveal why readers appear negatively disposed towards citing such articles.

## Appendix

Breakdown of research article titles and speech act titles by journal.

WoS ranking (2019)	Journal	Research article titles		Speech act titles	
		(n)	%	(n)	%
1	Theoretical Linguistics	439	1.2%	1	0.2%
2	Applied Linguistics	820	2.3%	32	5.0%
3	Journal of Memory and Language	1,959	5.4%	17	2.7%
4	Language Teaching	243	0.7%	0	0.0%
5	Modern Language Journal	1,109	3.0%	10	1.6%
6	Language Learning	998	2.7%	7	1.1%
7	Journal of Second Language Writing	437	1.2%	14	2.2%
8	Studies in Second Language Acquisition	640	1.8%	4	0.6%
9	Language Teaching Research	503	1.4%	7	1.1%
10	Computer Assisted Language Learning	622	1.7%	8	1.3%
11	English for Specific Purposes	680	1.9%	25	3.9%
12	Journal of Phonetics	869	2.4%	0	0.0%
13	Computational Linguistics	516	1.4%	4	0.6%
14	Language Learning and Technology	399	1.1%	5	0.8%
15	Corpus Linguistics and Linguistic Theory	142	0.4%	1	0.2%
16	Assessing Writing	326	0.9%	9	1.4%
17	Brain and Language	1,999	5.5%	18	2.8%
18	Bilingualism: Language and Cognition	674	1.8%	4	0.6%
19	Foreign Language Annals	1,453	4.0%	21	3.3%
20	International Journal of Bilingual Education and Bilingualism	636	1.7%	27	4.2%
21	TESOL Quarterly	1,387	3.8%	35	5.5%
22	Language in Society	653	1.8%	57	8.9%

WoS ranking (2019)	Journal	Research article titles		Speech act titles	
		(n)	%	(n)	%
23	Annual Review of Linguistics	21	0.1%	0	0.0%
24	International Journal of Multilingualism	355	1.0%	18	2.8%
25	System	1,679	4.6%	27	4.2%
26	Linguistic Approaches to Bilingualism	269	0.7%	2	0.3%
27	Language, Cognition and Neuroscience	513	1.4%	9	1.4%
28	Journal of English for Academic Purposes	498	1.4%	30	4.7%
29	Journal of Speech, Language, and Hearing Research	1,997	5.5%	7	1.1%
30	Journal of Neurolinguistics	900	2.5%	9	1.4%
31	ReCall*	333	0.9%	2	0.3%
32	Language, Speech, and Hearing Services in Schools	696	1.9%	5	0.8%
33	International Journal of Language & Communication Disorders	1,031	2.8%	19	3.0%
34	International Journal of Speech-Language Pathology	642	1.8%	8	1.3%
35	Aphasiology	1,853	5.1%	24	3.8%
36	Linguistics and Philosophy	646	1.8%	3	0.5%
37	Language Testing	665	1.8%	1	0.2%
38	Language and Education	765	2.1%	42	6.6%
39	Journal of Fluency Disorders	858	2.4%	7	1.1%
40	Annual Review of Applied Linguistics	65	0.2%	0	0.0%
41	Language Learning and Development	203	0.6%	5	0.8%
42	International Journal of Bilingualism	619	1.7%	9	1.4%
43	Journal of Sociolinguistics	340	0.9%	28	4.4%
44	Journal of Language and Politics	411	1.1%	19	3.0%
45	Natural Language & Linguistic Theory	690	1.9%	0	0.0%
46	Journal of Child Language	1,613	4.4%	18	2.8%
47	Second Language Research	516	1.4%	5	0.8%
48	International Multilingual Research Journal	144	0.4%	12	1.9%
49	Research on Language and Social Interaction	485	1.3%	21	3.3%
50	Applied Linguistics Review	127	0.3%	4	0.6%
	Total	36,438	100.0%	640	100.0%

\*1989–99 data excluded.

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