MODALITY IN STATEMENT OF OBJECTIVES IN ARTS-BASED RESEARCH ARTICLE ABSTRACTS

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ABSTRACT: This article explores the discourse functions of modality in statement of objectives in arts-based research article abstracts. For data, objective statements segments of three hundred abstracts of research articles obtained from the internet and purposively selected were analysed using insights from the linguistic tool of modality. Four categories of modal auxiliaries namely; possibility, necessity, prediction and permission modals characterised the data. Possibility modals are used in stating analytical scope and research goal in the abstracts; necessity modals are employed in stating analytical scope, presenting argument, seeking permission and/or making polite request; and prediction modals are used in stating the researchers’ research missions in predictive form. Apart from complimenting the existing works in research discourse in general and research article abstracts in particular, our analysis has no doubt provided useful insights into the roles of modal auxiliary verbs in Statement of Objectives (SO) segment of the arts-based research article abstracts.

KEYWORDS: Modality, Statement of Objectives, Discourse Function, Research Article Abstracts

INTRODUCTION

Studies on modality as an aspect of interpersonal metafunction in Systemic Functional Linguistics have, in the literature, mainly focused on variants of genres and/or discourse namely; conservative, legal, media, literary, academic, political and medical discourse as well as the contemporary English usage (e.g. see Nielson and Wichmann, 1994, Iwamoto, 1998, Langton, 2002, Pique-Angordans et al, 2002, Gotti, 2003, Smith, 2003, Gabrielatos and McEnery, 2005, Vold, 2006, Boicu, 2007, Vazquez and Giner (2008); Lillian,2008, Qun, 2010, Boudemagh 2010, Someya, 2010, Bonyadi, 2011, Aboh, 2012, Natey and Yankson, 2014, Khedri and Heng (forthcoming), Takarashi(forthcoming), Yusuf and Odebunmi(forthcoming) etc.) to mention but a few. Not many studies have examined modality in research article abstracts as a genre of academic discourse. The little works that are in existence in this area have largely focused on other genres of academic communication such as research articles, master’s thesis and dissertations, students’ essays, scientific discourse, business English (e.g. see Serholt, 2012, Ewe, 1979, Sulkunen and Torronen, 1997 etc.). Available literature reveals that the existing studies have not only neglected the use of modality in research article abstracts but have equally failed to pay attention to statement of objectives’ segments of the genre. Motivated by the scanty
of work in this area and the need to fill the existing vacuum in the literature, the present study, therefore, sets out to analyse the discourse functions of modality in statement of objectives in arts-based research article abstracts.

Besides, a study of objective statements in research article abstracts using the linguistic tool of modality has potency of enhancing a better understanding of the genre of abstracts in research article as well as complementing the existing studies on research communication in general. The study utilized as data three hundred abstracts of research articles. These were obtained from the internet and collected through purposive selection. The articles selected were published between 2001 and 2010 in learned journals of arts-based disciplines. The journals selected are domiciled in universities in the inner circle (countries where English is spoken as mother tongue). Our choice of data from the inner circle was constrained by the larger concentration of global arts research in these countries. The choice of period was motivated by the e-technology which unprecedentedly provided global visibility in the new millennium. The objective statement segments of the selected abstracts were carefully examined and analysed using insights from the linguistic tool of modality.

Statement of Objectives in Research Article Abstracts
Statement of Objectives (SO) also known as purpose statements are expressions of the purpose, thesis, or hypothesis, and/or intention(s) behind a particular research paper or work. It also states the reason(s) for writing the paper or the aims of the research. Statement of objectives or purpose statement has been described as the most common function included in abstracts. It is one of the obligatory generic structural features or elements of research article abstracts in particular and research discourse in general. It sets the specific goal(s) the work is intended to achieve. No wonder that Hunston (1993) reviewed in Cava (2010:32) notes that in academic writing, “the author presents him/herself as a researcher working towards the achievement of specific research goals…”

Modality and Statement of Objectives
Modality in English and other languages has attracted wide and elaborate attention by scholars from variants of disciplines in the last three decades. Among the disciplines that have contributed to the study of modality are philosophy, discourse analysis and linguistics. For the purpose of the present study, we shall focus on modality using linguistic approach. Linguistic studies of modality, as noted by Sulkunnen and Torronen (1997:45), can be located in a variety of linguistic subdisciplines namely; morphology, syntax, semantics etc. According to Lillian (2008:2), morphology describes the lexical forms in which modality is manifested in different languages; syntax describes the complex syntactic configurations in which modality may be manifested, and semantics identifies modal meanings and explores the variety of ways these meanings may be expressed morphologically, syntactically, phonologically and pragmatically. We therefore attempt a review of few definitions of modality as presented by linguists. Modality is said to be expressed through mood and it complements mood in the construction of interpersonal meanings. It is characterised to convey speaker’s or writer’s involvement in the propositional content of a given utterance. Besides, it is generally defined as the
grammaticalisation of speaker’s attitude and opinions. This position is further corroborated by Palmer (1986:14) who describes modality as the expression of the speaker’s attitude or opinion regarding “the contents of the sentence” and Lyons (1977:452) that sees it as the expression of the speaker’s attitude or opinion regarding “the proposition that sentence expresses.”

In Halliday’s Systemic Functional Linguistics(SFL), modality is mainly located in the interpersonal components of the grammar and choices in this component are independent of grammatical choices in other components, for example, choices of transitivity in the ideational component (Halliday 2002:200). For Martins and David (2003), modality is a way of introducing attitudinal voice to discourse. It is a resource for grading polarity, for setting up positivity and negativity (Martin and David, 2003:49).

**Manifestation of Modality in Clauses**

Several manifestations of modality in clauses have been discussed and examined in the literature. Available literature reveals that modality may be expressed in the clause through certain types of main verbs as well as through adjectives, adverbs and certain nominalisations. Fowler (1985:73) provides a brief list to illustrate these categories of modals. Modality, according to him, is signified in clauses in a range of linguistic forms namely;

(i) Modal auxiliary verbs: e.g. may, shall, must, need and others.
(ii) Sentence adverbs: such as probably, certainly, regrettably, etc.
(iii) Adjectives such as necessary, unfortunate, certain.
(iv) Some verbs and nominalizations are also essentially modal. e.g. permit, predict, prove, obligation, likelihood, desirability, authority etc.

Besides, in his analysis of newspaper editorials of *The New York Times*, Bonyadi (2011:5) identifies different textual strategies of expressing modality in clauses. These are modal auxiliaries (modal auxiliary verbs), modal adverbs, evaluative adjectives and adverbs, reporting verbs and generic phrases. For details, see Bonyadi (2011:5-6). Other linguistic manifestations of modality have also been identified in the literature namely, modal adjunct(Halliday 1994); interpersonal grammatical metaphor (Halliday 2004); intensification (Martins and David 2003), lexical verbal noun (McCarthy 1991); negation (Saheed 2003) and generic sentences (Toolam 1998). For the purpose of the present study, we shall consider and conceive of modality strictly as a venture in modal auxiliary verbs. We therefore attempt a review of modal auxiliary verbs and how they express modality in English discourses.

**Modal Auxiliary Verbs**

A modal auxiliary verb is a type of auxiliary verb that is used to indicate modality that is, likelihood, ability, permission, and obligation etc. Modal auxiliary verbs give more information about the function of the main verbs that follow them. They have a great variety of communicative functions. These range from possibility (“may”) to necessity (“must”). Within these two ranges, two functional divisions have been identified namely; epistemic and deontic modalities.

**Epistemic Modality**
Epistemic modality refers to the type of knowledge the speaker or writer has about what he is saying or writing. It deals with what the speaker or writer knows about the world. Besides, it implies that the speaker ‘assesses’ the probability that the proposition is true in terms of the modal certainty, probability or possibility (Downing and Locke 1992:332). Seven modal auxiliary verbs that are used to convey epistemic modalising meanings are can, could, may, might, need, will, would. Specifically, epistemic modality expresses possibility (e.g. may), likelihood, (can, could, might); necessity (e.g. must, should-compulsion, have to); prediction (e.g. will, would), certainty (will, would-weaker certainty); probability (e.g. may, might etc.). Examples below can be considered.

(i) She can go (ability).
(ii) You may go (permission).
(iii) You should go (obligation).
(iv) You must go (strong obligation).

Deontic Modality

This is concerned with the possibility and necessity in terms of freedom to act (including ability, permission and duty). Deontic modality means more specifically that the speaker or writer ‘intervenes in the speech event by laying obligations or giving permission’ (Downing and Locke 1992:332). This is resident in the examples below:

(i) One must look into this matter in detail.
(ii) Shall we negotiate peace now? or
(iii) This experiment should be repeated.
(Downing and Locke 1992:332).

As noted by Halliday (1970:335), deontic modality can be regarded as “a form of participation of the speaker in the speech event.” It plays a significant role in the interpersonal process of negotiation of meaning. Deontic modality pertains to the use of language to express desires, wants, commands, obligations, undertaking and permission. In other words, deontic modality expresses permission (e.g. may, can, may is more formal in English than ‘can’); obligation-necessity (e.g. must, should, ought to, have to); expectations (e.g. ought to); advisability (e.g. ought to ); volitions-desirability (should, would) and prohibition (e.g. must, must not). It tends to share a great deal with performatives. Palmer (1986:56) points out that “by uttering a modal, a speaker may actually give permission (may, can) and make a promise or threat (shall) or lay an obligation (must).”

Within Critical Discourse Analysis (CDA), modality is understood as encompassing much more than simply the occurrence of overt modal auxiliaries such as may, might, can, could, will, would, shall, should, must, and ought to. Within CDA, modality is said to concern the writer’s (or speaker’s) attitude towards and/or confidence in the proposition being presented. Fowler (1985: 72) categorises modality in attitudinal terms. He proposes five categories of modality which indicate speakers’ or writers’ attitude to the proposition they utter. According to him, the attitudes fall into the areas of
(i) Validity – the speaker expresses greater or lesser confidence in the truth of the proposition;
(ii) 
(iii) Predictability- The future events referred to are more or less likely to happen;
(iv) Desirability : Practical, moral, or aesthetic judgments;
(v) Obligation : Speakers judgment that another person is obligated to perform some action;
(vi) Permission: Speaker allows addressee to perform some action.

The above categories are said to correspond roughly to epistemic and deontic modalities. Epistemic modality, for example, corresponds to validity and predictability while deontic modality corresponds to desirability (volition), obligation and permission etc. Lillian (2008:5) points out however that classifying the modals is by no means unproblematic, since individual modals may function in more than one category. Borrowing examples from Palmer (2001:10), Lillian(op.cit) points out that ‘can’ conveys permission in the sentences, *John can come in now*; but conveys ability in the sentence, *John can speak French*. Given these possible interpretations therefore, Lillian (op.cit.) notes further that it is necessary to consider the context in which each modal auxiliary verb appears and attempt to interpret which possible meaning is the most likely one. Given the fact that the present study has conceived of modality strictly as a venture in modal auxiliary verbs, our analysis of modality in the data (objective statements aspect of the abstracts) shall focus on every occurrence of overt modal auxiliaries, their semantic implications and functions in the objective statement aspect of the data.

**Discourse Function of Modality in Statement of Objectives**

In this study, our analysis of modality shall be made in respect of the context in which the modal auxiliaries observed in the data are used and the functions that each is made to perform shall equally be based on the context of usage. Besides, discourse functions in this work is conceived in terms of the generic compliant functions that the modal auxiliaries are used to perform in the objective statements of the abstracts. Based on these, four categories of modal auxiliaries namely; possibility, necessity, prediction and permission modals are observed and found to characterize the Statements of Objectives (SO) aspects of the abstracts. Possibility modals are however found to be predominant. Examples of possibility modals that are found to be predominantly used in the SO aspect of the data are *might, may could*. An instance of possibility modal is resident in the example below.

**Ex. 1:**

… In the article, we outline what a theoretically grounded cognitive neuroscience of semantics *might* look like and summarize our own findings regarding the neural bases of semantic composition,… (Our emphasis)


In the above extract, the writer(s), state(s) the analytical scope (SAS) of the article as the possibility modal, *might* is used to project into the future and predict the likelihood of the situation as it concerns the ‘cognitive neuroscience of semantics’.

Another context in which the abstract writer(s) state the research goal (SRG) of the article through the use of possibility modal of *would* can be considered.
Ex.2:  
The purpose of this study was to ascertain whether judgments of solo performances recorded at a well known international piano competition would be affected by musical characteristics such as style (classic period versus early 20th century Russian) and tempo (slow versus fast)…  

In the above example, the modal auxiliary ‘would’ expresses the possibility of a phenomenon – judgments of solo performances… and how it would be affected by certain conditions mentioned in the abstract.

Another variant of possibility modal found to characterize the statement of objectives aspect of the data is the use of can which has cannot as its negative equivalent. The extract below shows the use of can to express possibility and/or ability.

Ex. 3:  
This study investigated the perception of undergraduate newspaper readers at the Covenant University, Otta, southwestern Nigeria, on how literacy and the media can interact to achieve enhanced language use. (Italics mine)  
Source: Journal of Language and Literature.

Given the context of use, ‘can’ in the above extract indicates or explicates the possibility of interaction between literacy and the media and the benefit(s) derivable from such interaction. Several other instances of possibility modals are abound in the data.

Few instances of necessity modals expressed through the modal auxiliaries must and should are found in the SO aspects of the abstracts. Extracts below can be considered.

Ex.4:  
This paper argues that music curriculum must be kept abreast of human developmental trends in order to remain relevant…  

Ex. 5:  
This work deals with specific questions of Canon Law discussed in five chapters: … (iv) Would an Episcopal consecration performed by only one consecrator be valid? (v) Should bishops hasten to help the church of Utrecht?…  

Considering the context of the above extracts, the SO in example 4 is presenting argument while that in example 5 is stating the analytical scope (SAS) of the study. For the researcher in example 4 to present the force of his argument, modal auxiliary verb must is used to indicate the necessary and required condition that must be fulfilled in order for music curriculum to remain relevant. Conversely, in example 5, the writer uses necessity modal, should to make a polite request: ‘Should bishops hasten to help the church of Utrecht?’

In another context in the data, the necessity modality of should is also found to be used in seeking permission and/or making polite request. The extract below instantiates this;

Ex.6:  

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This session will ask two questions. “Are we obligated to constrain our encroachment upon the environment in order to preserve biotic integrity?” And “when it is deemed necessary, or at least permissible, to develop, should our design techniques reflect the current environment it is affecting? (Our emphasis)


Apart from its use in making polite request in some other contexts in the data, should in the above example is used for seeking permission on what to do in relation to design techniques being mentioned. This confirms Lillian’s (2008:5) argument that “individual modals may function in more than one category.” She notes further that the context in which a particular modal auxiliary is used determines its meaning.

Prediction modals that are found in the SO aspect of the data are ‘will’ and ‘would’. These, as our findings reveal, are used in stating the research mission or intention most especially in predictive form. Below is an instance of statement of objectives (SO) where the modal ‘will’ is used.

Ex.7: ...this article will focus on exploring and analyzing notions of witchcraft and evil amongst … Finally, the article will explore how African migrants incorporated Local Jewish religious powers… (Italics ours)


Given the generic compliant function of the above SO, the extract is used in stating the analytical goal (SAG) of the research and modal auxiliary will expresses or states the research intention. Several other instances can be found in the data. Only one instance of permission modal ‘should’ is found in the SO aspect of the abstracts.

CONCLUSION

In the foregoing, we have examined the discourse functions of modality in Statement of Objectives (SO) segments of the arts-based research article abstracts. Our analysis of the discourse functions of modality in the data has been made in respect of the generic compliant functions of SO in the abstracts. Four categories of modal auxiliaries namely; possibility, necessity, prediction and permission modals are found to characterise our data. Among these, possibility modals are found to be preponderant. Given the context in which the modals are used as well as the generic compliant function of Statement of Objective (SO) in research genre such as ours, possibility modals(e.g. might, would etc.) are found to be used in stating analytical scope and research goal in the abstracts; necessity modals(e.g. must, should etc.) are employed in stating analytical scope, presenting argument, seeking permission and/or making polite request; and prediction modals(e.g. will, would etc.) are used in stating the researchers’ research missions in predictive form.

This article therefore concludes that apart from complimenting the existing works in research discourse in general and research article abstracts in particular, our analysis has no doubt provided useful insights into the roles of modal auxiliary verbs in Statement of Objectives (SO) segment of the arts-based research article abstracts. The analysis of the discourse functions of
modality in the SO segments of the data will no doubt orient new entrants into academic discourse community to the basic structure of modality required for expressing statement of objectives in research communication. This study contends that having the knowledge of the pattern of modality in SO aspects of the abstracts has potency of assisting academics in writing better and acceptable statement of objectives and by extension, better abstracts suitable either for conferences or articles meant for publication in learned journals. While serving as useful material for academic discourse pedagogy, this article is aimed at finding lasting solution to the problems being encountered by young academics in writing their statement of objectives.

REFERENCES


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