

EFFECTS OF ARTIFICIAL INTELLIGENCE (AI) ON SOCIOPRAGMATIC COMPETENCE AMONG STUDENTS IN SELECTED UNIVERSITIES IN NIGERIA

Dr Regina Ekwelibe

Department of English and Literary Studies
Imo State University, Owerri
Phone no: 08035637266
E-mail:mdgohaian@gmail.com

Abstract

The development of sociopragmatic competence in the English language has long been recognized as a crucial component of communicative competence especially in a second language environment such as Nigeria. Several studies have examined the role of technology in improving grammatical and lexical competence, yet few have explored its effect on sociopragmatic skills. Given Nigeria's multilingual environment and its reliance on English as the lingua franca and official language, understanding how Artificial intelligence influences the learner's social use of language is essential. The study, therefore, examines how AI-mediated learning platforms affect students' ability to interpret and apply sociopragmatic norms in English communication. The population for the study comprises undergraduate students of English and Literary studies from three universities: Imo State University, Owerri, Madonna University, Okija and Chukwuemeka Odimegwu Ojukwu University, Igbaram. A sample of 60 students was purposively selected and six English language lecturers were interviewed. Three research instruments were used for data collection, Sociopragmatic competence questionnaire (SCQ), AI Interaction Task (AIT) and semi-structured interviews. Dell Hyme's theory of communicative competence and Leech's Sociopragmatic theory form the theoretical bases of the work and guide for the analysis of data. Findings show that AI unlike the traditional method significantly helps students to develop confidence and pragmatic intuition, hence, their improvement on discourse management skills and contextual sensitivity. However, there are some urgent concerns; AI responses though grammatically correct yet often lack the cultural nuances of the language under study. This implies that AI responses do not always align with the English sociocultural expectations. Moreover, AI language tools most often fail to interpret pragmatic elements like irony, metaphor, sarcasm, idioms and other cultural-bound words, and this can lead to misunderstanding, miscommunication in intercultural interactions. The study, therefore, recommends a balance between AI and Sociopragmatics since an overreliance on AI can affect the students' sociopragmatic awareness, particularly in interpreting and producing contextually appropriate utterances.

Key words: English language and Culture, Sociopragmatic competence, Artificial Intelligence (AI), Communicative competence

Introduction

Language use, just like every other formal behaviour, is interpreted by the actors involved in the realm of social life (Verschueren, 450). Every society has its culture and tradition. According to Adeyanju (1998), language is an indispensable tool for cultural expression since it embodies the cultural content of those who own the language. In lieu of this, Besnier (1989), asserts:

There are values and norms that shape the way members of a culture communicate. On a closer look, users of a language are a part of the world of usage; they are never alone in their use of language but use their language as members of a speech community which reflects the conditions of the society at large. Among those conditions are the institutions that the society has created for themselves.

The above assertion, to a great extent, denotes that understanding a language involves not only the knowledge of grammar, phonology and lexis but also the culture, which is the system of values and attitudes, beliefs and norms that users of a language agree to. In language teaching and learning, Kramersch (1998), states:

Culture is not an expendable fifth skill, tacked on, so to speak, to the teaching of speaking, listening, reading and writing. It is always at the background, right from day one, ready to unsettle the good language learner when he/she least expects it, making evident their hard-won communicative competence and challenging their ability to make sense of the world around them.

English language is not indigenous to Nigeria. However, with its pride of place among the indigenous languages in the country, every second language learner or user wants, to a great extent, be flexible in the language and to achieve communicative competence. In addition, its successful usage simply suggests the knowledge of some aspects of the English culture. The L2 learner of English is usually faced with difficulties in acquiring the nuances

in the language that has a different cultural background. These nuances include the idioms, metaphors, proverbs, sarcasms and the use of speech acts like greeting, apology, request, etc which differ from culture to culture. These form the sociopragmatic aspect of the English language since they depict cultural experience and will require sociocultural awareness to be decoded and appropriately used.

However, in this 21st century, significant changes are occurring relating to scientific discoveries, informatization, globalization, the development of astronautics, robotics and artificial intelligence. It is called the age of digital technologies, skills and knowledge. Digitalization emerged and its significance increased in manifolds when the COVID-19 pandemic suspended face-to-face teaching and learning. The internet and ever-evolving technology become alternatives to traditional classroom set up and the education process which has also made learning interactive, engaging, motivating and handy. Education is not any more limited to textbooks and classrooms; it has become an amalgamation of technology, innovative learning and digital content.

Artificial Intelligence (AI) has become an indispensable part of modern education, influencing teaching methods, learning outcomes and communication practices. In language teaching and learning, AI applications like ChatGPT, Grammarly, Duolingo, Lingual coach and Replika have made it possible for language learners to practice language autonomously. However, while these tools improve grammatical and lexical competence, their impact on sociopragmatic competence has remained unexplored.

Statement of the problem

Sociopragmatics is an interface between sociolinguistics and pragmatics. It is context- dependent, implicit and culturally diverse. Linguistic nuances such as sarcasm, irony, metaphor, idioms, politeness and speech acts are completely beyond the understanding of AI systems and as a result, their responses and answers tend to be inappropriate and discordant with the user's intention. The study, therefore, examines how AI-mediated learning platforms affect students' ability to interpret and apply sociopragmatic norms in English communication.

Conceptual Framework

English Language and Culture: An Overview

English language functions as a second and official language in Nigeria. Though, it is the linguistic system and the carrier of cultural values, beliefs and tradition of the British who are the original owners of the language. It reflects their way of life, social norms and worldviews. A successful use of the L1 (English language) by the L2 learner suggests the knowledge of some aspects of its culture. Those nuances like the idioms, proverbs, metaphors and the use of speech acts are referred to as the socio-pragmatic aspect of the language since they are culture-bound and may need sociocultural awareness for demystification. For example, the speech-act verb, 'baptize' and its synonym, 'christen' express meanings which are bound very specifically to the Christian culture in which baptism plays a part. This may sound foreign to a Muslim. Hence, there is a correlation between language, culture and social meaning. Other examples include: the use of the word, 'brother' in British culture denotes a male sibling, but in the Nigerian context, it has a broad scope which includes: half-brother, step-brother, uncle, nephew, first cousin, etc. It can also be used as an expression of solidarity in trade unions and in Christian denominations such as the Catholic Charismatic Renewal Movement as brother in Christ. The word, 'sorry' is another example which Nigerians use frequently in the presence of, or in reference to another person who has suffered some injury or loss. A native speaker of English would say, 'Be careful', 'Mind your step', 'Watch it' and 'What a pity' (Jowitt, 33). Moreover, in making request, the use of politeness is very important while considering the power distance.

Could you please give me a cup of tea? (Polite request)
Give me a cup of tea. (Direct command)

In view of this, Sapir (1921) affirms that culture is the means by which members of the society express their thoughts and ideas to one another (20), and this requires explanation in terms of social meaning. Another example is the following statement below which requires an understanding of the Nigerian world view and socio-cultural background of the speaker to interpret, "My brother ate a lot of government money and here we are suffering lack." Many Nigerians would easily identify with this statement because of the social meaning of embezzlement of funds as an act of eating money, which is exactly the way many Nigerian languages would put it. Furthermore, another example, one of the (British) authors would frequently say to her Nigerian colleague, 'Maybe you could do this by next week'. The next week, she would be surprised to find that her Nigerian colleague had not done the work and was unaware that she was expected to do it by then. To the (British) author, her 'request' had seemed very clear, because in the British English, the use of 'maybe' is conventionally interpreted as a politeness mitigator that is not to be taken literally, however, to the Nigerian colleague, 'maybe' had a much more literal meaning. When asked, both individuals claimed to attach great importance to clarity and directness in giving instructions,

yet their ways of putting their principles into words were noticeably different. In other words, their pragmalinguistic and socio-pragmatic conventions for realizing directive speech acts were different.

Sociopragmatic Competence

The concept of 'Sociopragmatics' refers to the social use of language. It is the interface between Sociolinguistics and Pragmatics. It is the way conditions of language use derive from the social norms and situations. In other words, it involves the study of both the forms and functions of language in the given social setting. As an aspect of sociolinguistic competence, socio-pragmatic competence borders on the ability to use language appropriately and politely to convey messages while observing the social and cultural conventions guiding such use in a particular speech community.

The beginning of Pragmatic Studies brought a controversy as regards its overlap with such areas as Sociolinguistics, Psycholinguistics, Pragmalinguistics and others. Pragmatics, therefore, cannot be easily distinguished from societal factors. It goes hand in hand with Sociolinguistics. Socio-pragmatics becomes, therefore, the common label for the study of sociolinguistics and pragmatics which is aimed at helping the learner of a language to understand how language use is realized in the social life of a speech community and presents learners with what variety of language is, and how usage differences are realized in different contexts. Leech describes this as the competence of using appropriate terms by following the social rules (74). For instance, in the Nigerian social setting, Adetugbo points out:

It would be considered rude for me to address my father's peer as 'Dear Mr. Oni, by letter. In native English usage, this is appropriate. The best I can do in the Nigerian situation is to write, 'Dear Sir', considered inappropriate in native English use, or better still, 'Dear Father' which gives to a native reader a completely different picture of my relationship with the person being addressed. Native English users studiously avoid the use of imperatives when making requests, and resort to the indirect statements because the use of the imperative has come to be regarded as either impolite or condescending. In the Nigerian situation, however, this is the form used with politeness shown by the adjuncts please and kindly (171).

Artificial Intelligence (AI)

Artificial Intelligence (AI) is the simulation of human intelligence in machines that are programmed to think, learn and make decisions. It was first coined in 1956 by John McCarthy and since then, has evolved into a key component of modern technology. From speech recognition and machine translation to autonomous vehicles and medical diagnostics, AI has penetrated nearly every sector of the society. In language education, AI manifests through tools such as automated writing assistants like ChatGPT, virtual classrooms, and conversational chatbots, etc. AI-assisted platforms include: Cloud AI platforms like Google Cloud vertex AI, Microsoft Azure AI, others include Grammarly for writing and editing, Notion AI, Tensor Flow, etc. The goal of AI is not only to replicate human thoughts and actions but also to enhance decision-making. AI can be categorized into three main types based on capability and function. They include:

1. Narrow AI refers to systems designed to perform specific tasks like facial recognition, Chat bots or virtual assistants like Siri and Alexa.
2. General AI refers to the systems that can understand, learn and apply knowledge across multiple domains like a human being.
3. Super Intelligence AI is a specialized AI which is capable of creativity, problem-solving, strategic thinking at a level far beyond human capability and emotional intelligence.

Theoretical Framework

This study is anchored on two theories; Communicative competence theory by Dell Hymes and Sociopragmatic theory by Leech. Communicative competence embraces not only linguistic competence but also pragmatic competence. Paulston (2008) defines it as the ability to use language in its socio-cultural, interpersonal aspects, beyond the sentence level. Richard (1990) also made the following assertions: "Communicative competence borders on the knowledge of the grammar, vocabulary of a language, rules of speaking, appropriateness and response to different types of speech acts". Building on Canale and Swain's notion of communicative competence in 1996, Bachman and Palmer proposed the most comprehensive model of language ability to date, called communicative language ability (CLA). This model consists of organizational knowledge, which is, how individuals control the language structure to produce grammatically correct utterances or sentences and texts, and pragmatic knowledge, that is, how individuals communicate meaning and how they produce contextually-appropriate utterances. However, while the former includes grammatical and textual knowledge and the latter consists of sociolinguistic and functional knowledge. Canale and Swain identified four components of communicative competence as

1. Grammatical competence
2. Sociolinguistic competence
3. Discourse competence
4. Strategic competence

Grammatical competence means the acquisition of phonological, morphological, semantic and syntactic rules and orthography. Today, it is usually called linguistic competence. Concentration on grammatical competence alone, according to Yule (1996), cannot provide the learner with the ability to interpret or produce words appropriately.

Discourse Competence is the knowledge of the rules regarding the grammatical structures and appropriate combination of communicative functions of various types of discourse. Canale and Swain (2003) emphasize that sociolinguistic rules of use and rules of discourse are crucial in interpreting utterances for social meaning, particularly when the literal meaning of an utterance does not lead to the speaker's intention easily.

Strategic competence is the ability to use verbal and non-verbal strategies to communicate effectively. It compensates for breakdowns such as self-correction, and at the same time, enhances effective communication by recognizing discourse structure, activating background knowledge, contextual guessing, and tolerating ambiguity.

Sociolinguistic competence, on the other hand, involves learning the pragmatic aspect of the various speech acts, the cultural values, norms, and other socio-cultural conventions in the social contexts. These, according to Yule (1990), are the context and topic of discourse, the participants' social status, sex and age, and other factors which influence styles and registers of speech. Since different situations call for different types of expressions as well as different beliefs, views, values, attitudes, the development of sociolinguistic competence is essential for communicative social action. In a nutshell, it is the knowledge of the culture, register, dialect, and interaction skills of the target language. This enables the learner to know when to say, according to the context, "Can I have your pen?"

Currently, research has shown that pragmatic competence is not enough to achieve communicative competence in the English language, hence, the introduction of sociopragmatic competence by Leech in 1983. Sociopragmatic theory is originally owed to Jerry Thomas and was later, given wide currency by Leech who maintains that there exists a set of underlying social conventions which govern the use of language in a given speech community. These conventions or rules, according to Malinowski (1995), guide or influence the people's productive or interpretative use of the language especially the speech acts since they are culture-specific.

Socio-pragmatic competence, on the other hand, borders on the ability to use language appropriately and politely to convey message while observing the social and cultural conventions guiding such usage in a particular speech community (Ekwelibe, 2021).

Methodology

This study combined the use of questionnaire, AI Interaction Task (AIT) and interview. The questionnaire tagged Students Sociopragmatic Competence Questionnaire (SSCQ) is made up of two sections, the personal data and the question items. It contained twenty items arranged on a likert-type scale with four-response options; strongly agree, agree, disagree and strongly disagree. The questionnaire was administered personally by the researcher to 60 students, 20 from each of the three selected schools: Imo State University, Owerri, Madonna University, Okija and Chukwuemeka Odimegwu Ojukwu University, Igbariam. Some were retrieved almost immediately while others were collected later. In all, 58 were successfully retrieved. Additionally, six teachers of the English language were interviewed to gather data on their use of AI in teaching and learning the English language.

Data Presentation and Analysis

The 'strongly agree and agree' responses of students on their attitude to the use of Artificial Intelligence (AI) in teaching and learning of the English language were regarded as positive declarations while the disagree and strongly disagree responses and the choice of the traditional and face-to-face classroom and method were taken as negative declarations. Also, the 'the very great extent', 'great extent', 'low extent', 'very low extent' and 'no extent' were used to show the extent or the degree at which teachers of the English language use the digital tools in teaching the language. The following tables were generated.

Table 1
Attitudes of the students to the use of Artificial Intelligence in teaching and learning the English language

No	Strongly Agree	Agree	Strongly Disagree	Disagree
58	40	14	3	1

Table 1 shows the number of respondents are 58. This result vividly depicts 54 students show positive attitudes towards the use of AI in teaching and learning while 4 of the sample population have negative attitudes. This is expected because the greater part of the sample population are youths and they have access to android phone which helps them to easily assess AI-mediated platforms. In the classroom, they become more engaged whenever AI is used. Those with negative attitude either lack the necessary digital skills or cannot afford the sophisticated and expensive android phone and prefer the traditional method. Like the Computer-Based Test used in most institutions today as a means of assessing prospective workers and even the students, anyone without the fundamental knowledge of computer and typing automatically loses the job or fails an examination.

Table 2
To what extent do teachers of the English language use AI tools in classroom teaching?

No	VGE	GE	LE	VLE	NE
58	10	20	30	25	10

The above table shows the extent at which teachers of the English language in the universities use AI in classroom teaching and learning. Very Great Extent and Great Extent show the degree of positive responses to the usage while Low Extent, Very Low Extent and No Extent, portray the negative responses or extent to which digital technology is applied in the classroom. The negative responses are as a result of a list of factors including unavailability of the digital tool, attachment to the traditional method of face-to-face teaching, lack of professional digital skills and sophisticated knowledge of the new technology among the teachers, etc. Though an average teacher in the university wants to be relevant in his field of work and to climb the socio-economic status ladder in this 21st century of which the acquisition of digital skills and knowledge are quite expedient, the use of the new knowledge and skill is generally still very poor.

Table 3
To what extent does AI enhance sociopragmatic skills?

No	VGE	GE	LE	VLE	NE
58	5	10	20	25	35

This table shows the extent at which AI enhances the students' sociopragmatic competence. Very Great Extent and Great Extent show the degree of positive responses to the usage while Low Extent, Very Low Extent and No Extent, portray the negative responses or extent to which digital technology helps them to acquire competence in the sociopragmatic aspect of the English language. AI can simulate social scenarios to help students practise these speech acts; greetings, requests and apologies with immediate feedback but an overreliance on can deprive the learner real life communicative experiences, weakening sensitivity to social cues and emotions.

Findings and Discussions

Findings in this research have shown that Artificial Intelligence (AI) holds immense potential to transform language learning by providing personalized, adaptive, and interactive environments. Many students have embraced the new knowledge with great joy and enthusiasm, though a few showed sign of a preference to the traditional face-to-face communication with its practices. However, AI's impact on sociopragmatic competence remains double-edged. While it can enhance exposure and awareness through Chatbots and translation applications, it cannot substitute the richness of human interaction that underlies pragmatic competence. Through AI-mediated communication, learners interact with global users and gain awareness of cultural variations in pragmatic use but real-life practice is usually difficult especially with the nuances of the language. What is acceptable in one culture, maybe unacceptable in another culture; hence the difference in sociocultural norms.

This, AI has failed to demystify. Continuous use of AI-generated text can make learners dependent on pre-programmed expressions, hindering their ability to adapt language to specific contexts. Therefore, a balanced approach that integrates AI with authentic communicative experiences is essential for fostering sociopragmatic competence in learners.

Conclusion

The study has revealed, to a great extent, that for a second language learner to be communicatively competent in the English language, he/she has to achieve sociopragmatic competence. The integration of Artificial Intelligence (AI) into everyday communication is inevitable since we live in a digital age. This integration has brought transformative possibilities, though, side-by-side complex dilemmas, particularly within the field of sociopragmatics. AI technologies such as chatbots, virtual assistants and language models offer tools for improved cross-cultural understanding and pragmatic instruction but they also present challenges including misinterpretation of contextual cues, lack of cultural sensitivity and ethical concerns related to bias and data privacy. It is true, that there are key growth opportunities for leveraging AI in Sociopragmatics, however, according to Leech (1983), language use cannot be built as independent of the sociocultural setting and norms of formality and politeness. Therefore, a balanced approach that integrates AI with authentic communicative experiences is essential for fostering sociopragmatic competence in learners.

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