

# REPAIRS, HEDGING AND THE INTERCONNECTED BRAIN FUNCTIONS IN SPONTANEOUS SPEECH ERROR CORRECTIONS OF INTERLOCUTOR'S SPEECH EVENTS

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## Abstract

The brain is said to be responsible for nearly all the functions of the body and this include hedging, repairs and the appropriate retrieval of mental signals expressed as words. Hedging and speech error repairs as well as the interpretation of such are premised on previous knowledge and experiences hence, the understanding of the correlation and complexities of human brain and their cognitive abilities and functions in speech event of interlocutors has become a great concern to linguists and thus have spurred a society-based finding. The study adopted Hymes (1970) communicative competence as theoretical model and using a content analysis under the qualitative analytical method and descriptive analysis under the quantitative analytical method, the paper investigated the various brain functions in the use of hedges and the speech repairs of 120 interlocutors selected through systematic sampling technique. Findings showed that speech repairs occurred when a speaker employs mechanisms initiated by the brain in order to correct a detected error which was corrected by the speaker or the listener. The correction was achieved by the use of hedges of different sorts- as; *um, uh, err, ah, like, right and you know*. In some cases, speakers repeated, added, replaced, or even abandoned their constructions. The paper concluded that repair processes are largely controlled by the brain as one spontaneously self-repaired and self-initiated corrections of one's own speech through hedging within the same speech process and recommends that the human brain should be fully enlisted as a major organ of speech as the brain plays a key role in both hedging and speech repairs.

**Keywords:** Repairs, Hedging, Language, Speech, Brain, Interlocutors

## INTRODUCTION

Questions about the relationship between the nature of the brain is in sync with the fact that the choice of hedges and repairs varies between people on the basis of experience, culture and environmental factors and human speech is ultimately a product of the brain. Over the years, Neuro-linguistics is concerned with brain mechanisms and the anatomical structures that underlie linguistic competence and performance. The effective use of language however has yielded a bridge to the existing lacuna of excluding the human brain as a major part of the organs of speech. Language is viewed as a vehicle that transports thoughts, feelings, emotions, ideas from one entity to another for the purpose of communication. (Okata 2016). When errors are committed in a discourse speech event, interlocutors automatically resort to repair mechanisms. The errors are sometimes due to inability to retrieve lexical items, and the incorrect use of pronunciation, lexis or syntax. During this process, the brain is at alert and automatically locates the errors and automatically deciphers a possible correction. This paper

is a conscientious attempt to establish the link between brain and speech making with respect to hedging in speech error repair mechanism speech processes.

Individuals presumably know what they intend to communicate before initiating a talk. Fromkin *et al* (2011) posits that ‘the idea that the brain is the source of human language and cognition goes back to more than two decades. Philosophers such as Plato and Aristotle wrote about the brain’s function in cognition of language. However, other philosophers of the same period showed greater insight. A good example is the quote by Hippocratic Treatises on the Sacred Disease of 377B.C.E which states that ‘the brain is the messenger of the understanding -and the organ whereby we acquire wisdom and knowledge’. Equally, the enquiry of how language functions in the process of a speech event is crucial to the understanding of the brain/mind relationship and according to Lauria (1984), who stated that the innate features of the language capacity must be a set of biological structures, selected in the course of the evolution of the human brain which is in center of every activity. Despite the existence of speech errors, verbal communication is successful because speakers can detect and correct their errors. To them, the theory borrows from studies of forced -choice-response tasks the notion that error detection is accomplished by monitoring response conflict via a frontal brain structure, such as the anterior cingulate cortex (Nozari, Dell and Schwartz 2011).

To Ananya [2013], the human brain is divided into two hemispheres based on certain functional features. The left side hemisphere is the “logical brain” and is involved in language and analysis while the right hemisphere “the creative” is involved in day-dreaming and imagination. He noted that researches on speech and language show that in about 97% of people, language is represented in the left hemisphere. While in about 19% of left-handed people, the areas responsible for language are in the right hemisphere and that as many as 68% of them have some language abilities in both the left and the right hemispheres. The neural network is established over time as an individual learns and experiences things, it is worthy of note that language and speech skills are acquired after birth. He maintained that the human genome codes for the speech ability evolves as the brain is trained and the Broca’s area of the human brain is responsible for speech production. This part of the brain is the cerebral cortex Brodmann’s area 44 and 45.

Damasio (1981) inferred that the functional asymmetry of the human brain is unequivocal, and so is its anatomical asymmetry as the structural differences between the left and the right hemispheres are visible. To him, the most striking asymmetries occur in language-related cortices and it is tempting to assume that such anatomical differences are an index of the neuro-biological underpinnings of language which is evident on the spontaneous repairs and hedging process.

### **Speech Error in Speech**

In every facet of human endeavor that involves speech, otherwise known as the practical use of language, error abounds. These errors are sometimes spontaneous while the speaker can be oblivious of the occurrence. On the contrary, the speaker can be conscious of the error and thus makes a deliberate effort to correct the errors in the course of interaction or conversation. This

knowledge involves knowing how to recognize appropriate turn- exchange points or the transitional relevant point (TRP) and how long to pause between turns.

According to Nozari et al, error detection in conversations increases in the proportion if corrected errors as a function of error probability was not just detectable at the final position of the sentence where interference from a previous item is high. The implication suggests that, there exists an involvement of a fast and adaptable monitoring mechanism for each word to optimize sentence production and this device, this study situate as the brain function. (Nozari et al., 2019). The involvement of these highly efficient monitoring processes has been evidenced through the increased proportion of corrected errors as a function of error probability on error-prone words throughout the sentence. (Nozari et al., 2019).

Speech errors according to Hilroy & Hilroy (1985) are the mistakes made when a turn is going on. They could be factual errors or errors of construction, most often, not deliberately made. Speech errors are sometimes said to include hesitations, repetitions and the use of slot fillers such as “er”, “well”, “em”, “I mean”, “you know”, etc. To them, such errors can be corrected by self through restatement, withdrawal of statement or repetition. The mistakes can be corrected by the other participants through polite interruptions. Sacks, Schegloff and Jefferson (1974) as quoted by Mazur (2006) also identified a technique by which participants may repair or correct any mistake in interaction. They call this technique. “Repair Mechanism” To them also; Conversational errors include hesitations, repetitions, mispronunciation and the use of Hedges in form of “fillers” such as “mm”, “uhum”, “er”, “well”, “you know”, “I mean,” etc. Schiffrin (1987) described these fillers as “discourse markers”. He maintains that slot fillers as a form of hedging are highly systematic and serve a range of clear function in spoken language. To him, “they are errors only if conversation is judged from the normative stand-point of written language”. If participants orientate to turn taking procedure or have some hitch in their speech, they resort to repair mechanisms.

### **Repair Mechanism in Speech**

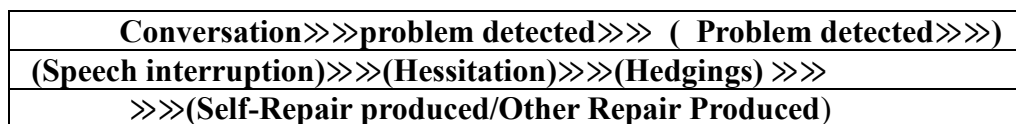
According to Schiffrin, there are two ways by which errors made during conversation may be rectified: one, the speaker may **self-correct** and two, the speaker may not recognize his mistake until **other** co-participant directs his attention to it. Sacks *et al.*, (1974) on their own view posits that in discourse, errors are always committed and repaired. Most often, the errors are unintended as the locutionary act of the turn may be misheard and so also is the illocutionary act which may be misunderstood. In this situation, participants resort to repair mechanisms when they experience some hitches in their speech. Repair Mechanism is therefore, a process that occurs when a speaker realizes an error and repeats what has been said with some sort of correction. These mistakes can be corrected by the speaker or other participants through polite interruption. Here, speech errors are often corrected by the use of hedges- slot fillers, apparently meaningless words, phrases or sounds that mark a pause or hesitations in speech. Some common slot fillers are *um, uh, err, ah, like, right and you know*. Sometimes speakers usually repeat, add, replace, or even abandon some constructions in the utterances for some mental reasons which amounts to brain functions in speech process.

### Brain functions in Speech Process

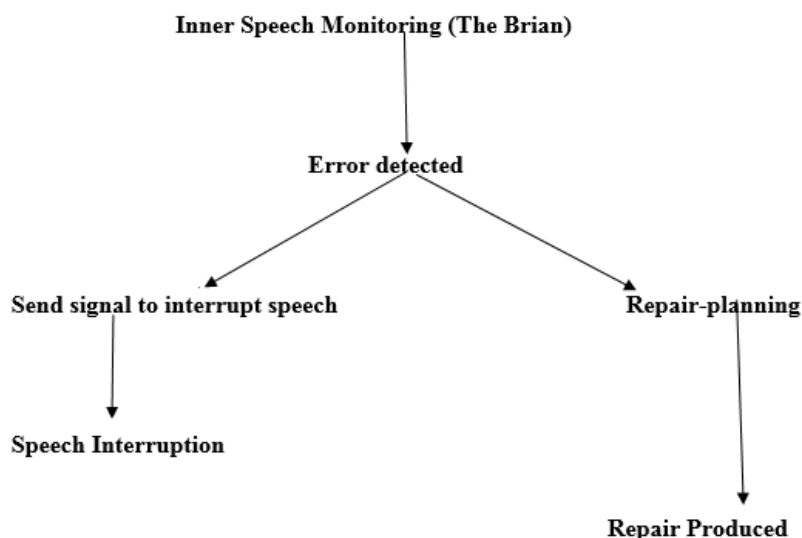
It is pertinent here to note that in as much as speech is concerned primarily by the distinctive organs of speech which includes the lungs, the wind pipe, vocal cavity, buccal and nasal cavity, the mechanism of speech error and repair mechanism is largely controlled by the brain facet known as the central nervous system in man. According to Langbrain (2010), the ability of humans to speak and to understand speech requires an enormous amount of brain resources. He further stated that these resources have to manage information about many thousands of words and many syntactic constructions and their interconnections, not just to one another but to meanings and to the structures that allow one to recognize the sounds of speech and to move the muscles of the mouths to produce speech. This complex combination of brain structures he termed as the brain's linguistic systems. This facet allows a person not only to talk and to understand speech but also to read and write. It also supplies the power to think as well as the power to acquire new knowledge and abilities and to learn how to speak in the first place. This set of linguistic system is in the two cerebral hemispheres, comprising mainly the cortex (gray matter) and the white matter (Langbrain, 2002-2009). The white matter area contains billions of fibers providing interconnections among different areas of the cortex, whereas the linguistic system occupies a central position in mental structure, connected to the cognitive system. Langbrain thus maintains that a people's linguistic information is in their brains and the linguistic network has a significant relationship to the neural network of the brain.

Positing from the afore standpoint that language is the window of the mind and the fact that the linguistic system has to be richly connected to other cognitive systems represented throughout the cerebral cortex, language is therefore employed in discussing an enormous range of different kinds and aspects of human experience and endeavor which has its roots and base in the brains. This linguistic system occupies a central position in the mental structure, connected to the cognitive systems that register all other experiences thus building a bridge between neural networks and linguistic networks. The bridge gives answers on the explanation of how linguistic information is organized, used and learned. A careful observation reveals that one can learn about the structure of the brain just from the linguistic evidences (Langbrain, 2002-2009).

The Function of the brain in the speech production process as speech error and repair mechanism can further be illustrated with the following diagram;



**Diagram 1: A Simplified diagram of the Brian function in speech error and repair process**



**Diagram 2: Time intervals in Speech Error and Repair mechanism**

(Adapted from Blackmer & Milton, 1991)

To linguists and others who have all concerned themselves with the phenomenon of “correction” or repair, a distinction is commonly drawn between “self-correction” and “other-correction”, i.e., correction by speaker of that which is being corrected and correction by some other. Sociologists take an interest in such a distinction; its terms- self and other have long been understood as central to the study of social organisation and social interaction. For the impetus of this paper, “self” and “other” are two classes of participants in interactive session. What speakers usually avoid doing is as important as what they do as self-correction of speech can be identified in this paper as “give” and “take” in conversation from the point of both the speaker and the addressee.

**Self- Repair Mechanism**

The concept of self-repairs are self-initiated corrections of one’s own speech within the same speaking turn. These are a normal phenomenon in spontaneous speech, and are produced in response to a linguistic problem like the inability to retrieve lexical items, and the incorrect use of pronunciation, lexis or syntax. These problems can be overtly detected, but they can also be detected in inner or pre-articulatory speech by some form of **speech monitoring mechanism** inherent in the speech production process and controlled by the brain (Coulthard & Montgomery, 1981), hence, repairs can be produced with the related problem being partly produced where speakers cut their speech off in the midst of a word and alternatively, speakers may produce hesitation and hedging in their speech, such as filled pauses ( ah, ahm, ehm, er), silent, pauses and prolonged segments.

Below is an example:

- Doctor: When did you first start noticing that  
you –em, er-were having attacks of coldness
- Patient: I've always been very cold feet and hands
- Doctor: MOST OF YOUR LIFE (high key)
- Patient: Yes, I would say so doctor
- (Coulthard & Montgomery, 1981)

### **Another Repair Mechanism**

Onadeko (1979), posits that a speaker might not recognize his mistakes until his coparticipant calls his attention to it. Below is an example;

- Speaker the man was unlawfully arrested and detained in connection with the willful  
damage of the belongings
- Participant Building
- Speaker I am referring to the building sir and thank you
- Participant The building and the belongings are not the same.

(Here, the Speaker does not recognize his error, he waits for a participant in the ongoing talk to correct him). In communicative event, addresses and the addressees are involved in a give-and-take "game". The hearer can help correct the speaker's error and vice versa. This brings to bear the notion of cooperative principle. Generally, repairs are categorized into four classes. This is based on who has initiated the repair and who has taken steps to resolve it. The four classes are;

- \*Self-initiated self-repair (SISR)
- \*Other-initiated self-repair (OISR)
- \*Self-initiated other-repair (SIOR) and
- \*Other-initiated other-repair (OIOR). (Schegloff, 1997, Schegloff, 2000).

### **Hedging in speech process**

Hedges can be defined as linguistic devices [words] used by speakers usually to soften or explain utterances beforehand and are usually regarded as euphemism which is intentionally. They are an integral part of everyday communication and as a discourse strategy, it is important part of polite conversation, this is because they make utterances less direct as hedges often occur in the forms of politeness, adjectives, slot fillers, or adverbs, but can also be clauses such as one of tag questions; softening the blow, avoiding the appearance of bragging, correction of error or personal idiosyncrasies. Tang (2013), notes that it is important to note that improper use of hedges fails to maintain politeness and leads to pragmatic failure. The common types of

hedges include tense and aspect, modal expressions- modal verbs and adverbs as well as vague language such as sort of, kind of and some verbs. Instances of utterances that involve the use of hedges include;

Tense and Aspect

**Ex, wondered may be used in a statement as follows:**

John *wondered* if he could have your room for the party [less direct and more polite)

John wanted to have your room for the [direct and less polite]

Modal expressions

**These can be used as hedges;**

**Ex.**

It *could* be that she is ill

She is ill

*Maybe they'll help us with the task*

*Help us with the task*

That is *possibly* the best performance ever

That is the best performance ever

**Some vague Language is often employed; it does not add any significant meaning to the expression, but it helps in achieving politeness less direct communication.**

- a. It's *sort of* difficult to please them
- b. It's difficult to please them
- c. You may *just* wait for the direction
- d. Wait for the direction

Verbs are also used as hedges. Verbs, including feel, suppose and reckon are often used as hedges in communication, in an individual's attempt to make personal utterances, utterances less direct. For stances rather than a direct statement such as: This is the best option, the speakers says 'I *suppose* that this is the best option'. We reckon that this is the best option among all rather than. This is the best option among all. In the above examples, the original meanings and intentions are retained; the statements are however less direct. They are also more pleasant to the audience. Hedges is not only limited to the fields of arts and languages rather, is also greatly valued and employed in the sciences. In fact, Sciences has its peculiar and almost unavoidable collection of hedges as illustrated in the thesis of TeppoVarttala (2001). For instance in academic writing, hedges are employed to show that statements are not totally based on personal opinions. It is also used to show that statements are not expressed as absolute truths that cannot be improved, adjusted or even controverted. This, in the sciences, is a way to avoid absolute assertiveness is making judgments and inferences. Sentence Structures are constructed in the passive.

For instance, scientific references are made as follows:

- i. It is *reported* that
- ii. It has been *observed* that
- iii. It is generally *believed* that
- iv. It is *probably* the only specie in existence

Nothing that academic writing, particularly scientific writing, is factual, simply to convey facts and information. Nevertheless, it is however recognised that an important feature of academic writing is the concept of cautious language, often called ‘hedging’ or ‘vague language’. In other words, it is necessary to make decisions about one’s stance on a particular subject, or the strength of the claims one is making and this is achieved in a number of ways depending on subjects, culture and audience among others. Though the subjects and culture of individuals may vary, it is important to note that pragmatic competence must always be achieved in effective communication relative to the use of hedges, irrespective of the audience. Hence this paper carries out an investigation on repairs, hedging and the interconnected brain functions in spontaneous error corrections of interlocutor’s speech events

#### Common hedging language

Introductory action verbs	Seem, tend, look like, appear to be, think, believe, doubt, be sure, indicate, suggest
Common lexical verbs	Believe, assume, suggest
Common modal verbs	Could, must, would, may, might.
Certain adverbs of frequency	Sometimes, usually, often
Modal verbs	Definitely, clearly, probably, possibly, perhaps, conceivably, certainly
Modal adjectives	Definite, clear, probable, possible, certain
Modal nouns	Possibility, probability presumably, it appears, assumption
That clauses	It could be the case then that It might be suggested then that There is every hope then that

## METHODOLOGY

One hundred questionnaires structured with words that are typically used as hedging words were administered to respondents in a University speech community using systematic sampling technique. The individuals were introduced to the survey project purpose and encouraged to, as much as possible, to complete and return the questionnaire. This questionnaire was administered only to members of the community under study as an inclusion criterion. At the end, the completed questionnaire was collected, collated and the data was analysed using Dell Hymes (1970) communicative competence theory model. Communicative competence model is a theory which is concerned with the ability to use language in a grammatically correct manner, grammar understanding, cultural knowledge, conversational skills, and the ability to maintain control over language gaps. This was to determine the frequency and choice of hedges found in the repair process of speech events of interlocutors. The results are hereby presented in charts and tables below;



**Table 1: Analysis of Data Distribution of respondents based on their gender.**

Variable	Frequency	Percentage
<b>Sex</b>		
Female	30	24.0
Male	75	76.0
<b>Total</b>	<b>100</b>	<b>100</b>

**Table 2: Distribution of respondents based on their local languages. These languages were all represented as well as the pidgin and other local minor languages. This reflects the typical Nigerian linguistic socio-cultural situations.**

Variables	Frequency	percentage
<b>Ethnic group</b>		
Hausa	15	12.0
Igbo	25	30.0
Yoruba	45	46.0
Pidgin	10	8.0
Others	5	4.0
<b>Total</b>	<b>100</b>	<b>100</b>

**Table 3: Distribution of respondents based on their educational qualifications. Results here showed that all respondents had at least the ordinary level certificate, indicating that respondents were educated enough to be users of the English Language.**

Variable	Frequency	Percentage
<b>Education qualification</b>		
O' Level	30	32.0
OND/ HND	20	16.0
NCE	10	10.0
Bachelor Degree	27	32.4
Postgraduate Degree	13	9.6
<b>Total</b>	<b>100</b>	<b>100</b>

**Table 4: Distribution of respondents based on their primary fields of education, study or knowledge. This distribution shows that respondents were distributed across various walks of life and are proportionally represented in the population.**

Variable	Frequency	Percentage
<b>Background</b>		
Sciences	45	44.0
Art and Humanities	21	23.8
Medicine	5	4.0
Law	1	0.8
Engineering	9	10.2
Others	19	17.2
<b>Total</b>	<b>100</b>	<b>100</b>

**Table 5: Distribution of respondents based on their employment status. Most respondents were formally employed or engaged; an indication that they would be required to communicate in the official National and formal language regularly.**

Variable	Frequency	Percentage
<b>Place of Work</b>		
University	65	65.4
Self-employed	10	9.6
Student	24	24.2
Civil servant	1	0.8
Total	100	100

**Table 6: Distribution of respondents based on how often they use slot fillers in repairs. Results showed that many respondents regularly used hedges mostly as slot fillers such; ‘eh’, ‘you know’, ‘em’ ‘as in’, ‘like’ ‘look like’ and ‘seem’ were the most popularly used.**

Introductory Verbs	I don't Use	I use Often	Use Rarely	Use Very Often	Total
You know	10 (8.00)	20 (20.00)	55 (60.00)	15 (12.00)	100 (100)
Em	46 (42.80)	22 (31.60)	12 (9.60)	20 (16.00)	100 (100)
Seem	50 (56.00)	20 (20.00)	0 (0)	30 (24.00)	100 (100)
as in	14 (11.20)	26 (20.80)	25 (24.00)	35 (44.00)	100 (100)
Eh	24 (19.20)	63 (70.40)	12 (9.60)	1 (0.80)	100 (100)
Like	20 (24.00)	40 (40.00)	20 (16.00)	20 (20.00)	100 (100)
look like	0 (0)	32 (26.60)	30 (47.20)	38 (27.20)	100 (100)
appear to be	15 (12.00)	30 (32.00)	5 (10)	50 (46.00)	100 (100)
Think	1 (0.80)	24 (19.20)	12 (9.60)	53 (70.40)	100 (100)

**Table 7: Distribution of respondents based on their use of lexical verbs as hedging in speech repairs. Respondents regularly used lexical verbs as hedges and the word ‘assume’ is the most popularly used.**

Certain lexical verbs	I don't Use	I use Often	Use Rarely	Use Very Often	Total
Believe	10 (8)	38 (36.00)	20 (32.00)	32 (24.00)	100 (100)
Assume	10 (8.00)	20 (16.00)	35 (44.00)	35 (32.00)	100 (100)
Suggest	10 (10)	22 (26.60)	39 (36.20)	29 (27.20)	100 (100)

**Table 8: Distribution of respondents based on their regular use of certain modal verbs as hedging in repair process. There seems to be some disparities in the choice of modal verbs among users with majority of respondents using ‘would’ most regularly.**

Certain modal verbs	I don't Use	I use Often	Use Rarely	Use Very Often	Total
Will	30 (32.00)	40 (44.00)	30 (24.00)	0 (0)	100 (100)
Must	1 (0.80)	24 (19.20)	12 (9.60)	88 (70.40)	100 (100)
Would	0.5 (0.6)	50 (50.00)	23 (20.00)	26.5 (24.00)	100 (100)
May	15 (12.00)	35 (32.00)	50 (56.00)	0 (0)	100 (100)
Might	10 (8.00)	20 (20.00)	55 (60.00)	15 (12.00)	100 (100)
Could	30 (32.00)	40 (44.00)	0 (0)	30 (24.00)	100 (100)

**Table 9: Distribution of respondents based on their uses of adverbs of frequency as hedging in repairs. Here, the most popularly used adverb of frequency was ‘usually’.**

Adverbs of frequency	I don't Use	I use Often	Use Rarely	Use Very Often	Total
Often	15 (12.00)	25 (20.00)	15 (12.00)	45 (56.00)	100 (100)
Sometimes	40 (40.00)	25 (24.00)	15 (16.00)	20 (20.00)	100 (100)
Usually	26 (24.80)	35 (44.00)	25 (20.00)	14 (11.20)	100 (100)

**Table 10: Distribution of respondents based on their regular choice of other modal verbs as hedging in repairs. The word ‘possibly’ was the most popularly used word in this category.**

Modal verbs	I don't Use	I use Often	Use Rarely	Use Very Often	Total
Certainly	0 (0)	40 (32.00)	0 (0)	60 (68.00)	100 (100)
Definitely	10 (8.00)	30 (24.00)	15 (12.00)	45 (56.00)	100 (100)
Clearly	40 (40.00)	40 (40.00)	0 (0)	20 (20.00)	100 (100)
Probably	14 (11.20)	26 (20.80)	0 (0)	60 (68.00)	100 (100)
Possibly	25 (26.60)	45 (47.20)	0 (0)	30 (27.20)	100 (100)
Perhaps	12 (9.60)	22 (21.60)	20 (16.00)	46 (52.80)	100 (100)
Conceivably	40 (44.00)	25 (24.00)	0 (0)	35 (32.00)	100 (100)

## DISCUSSION

### **Respondents Gender and Skills Communication**

The collated results from respondents based on their gender showed that the respondents were adult males and females and the majority were females. The questionnaires were distributed without gender bias; the results provided information on the population structure. It was discovered that English users in the studied community had major local languages.

The second table showed the distribution of respondents based on their local languages and findings indicated that the local languages were all represented and these included Yoruba, Hausa, Igbo and Pidgin. Pidgin proved to be a bridge language used by a significant proportion of Nigerians to communicate with others in situations where the official national language-English and the other aforementioned major local languages lacked mutual intelligibility. The observation reflected Nigerian scenarios of the use of Languages. A major factor to consider alongside the punctualities associated with the use of English language in the studied population is how they affected communicative competence (Hymes, 1970).

Respondents mostly had at least the ordinary level certificate, indicating that respondents were educated enough to be users of the English Language. More so, about fifty percent of them had both bachelors and postgraduate qualifications. This showed that they were educated individuals with the basic knowledge and understanding as well as communication skills involving the use of hedging in the speech repairs.

### **Respondents Educational Background**

The table distribution of respondents based on their primary fields of education, study or knowledge showed that the respondents were distributed across various walks of life and were proportionally represented in the population. Their distribution ranged from majority being scientists, followed by respondents in humanities and Engineering. This proved a fair reflection of the studied community in terms of the distribution of individuals based on fields of study. Sciences however, had the largest proportion, arguably because of the large size of the fields and its large sub-fields. Worthy of note is the fact that the individuals in the studied community were people that would make use of English language in everyday communication as regular non-specialist users thus, findings provided a fair reflection of how lay people use hedges in their everyday communication in relation to speech repairs in this community.

The respondents were formally employed indicating that they would be required to communicate in the official National and formal language regularly. In this vein, the observation that they also have their primary local languages which are considered major local languages is important to understand that these group of people would require an above the average standard and quality of language use in their day to day communications. The results, obtained from these responses therefore reliably provide information on the use of hedges in their speech repairs.

## Respondents 'Use of Hedges in Communication

The Table 6 contains the distribution of respondents based on if and how often they use slot fillers as hedging style in speech repair process and finding showed that majority of the respondents would use slot fillers-'eh"em', 'eh eh', 'you know' and also 'seem' in their speech repair process.

In respect to the use of lexical verbs; respondents used 'believe' and 'assume' much more than they used 'suggest'. The two words, though not necessarily direct are seen to be more emphatic than suggest. More so, 'believe' carries positive impression in context; while 'assume' shows a positive though relatively less factual or empirical impression in repairs. This indicated that the word 'possibly' was the most popularly used word in this category. 'Perhaps' was also used. The choices, again, followed the principle of politeness in communication which is often achieved through the use of hedges. Table 9 showed Distribution of respondents based on their uses of adverbs of frequency as hedging in repairs. Here, the most popularly used adverb of frequency was 'usually'.

While 'often' and 'sometimes' was used by respondents as favorite hedges to indicate politeness and give impression of not being too direct; 'usually' was required to show emphasis indicating a typical favourite in conventional use of the English Language during the speech repair process. Here, the popularly used adverbs of frequency among the respondents were 'usually' and 'often'. This shows that their contexts of use were expectedly different. The use however, still indicate that individuals in the studied group emphasized frequency of a deed or activity or event, and perceive it as not being an indication of directness but emphasis. These also applies to the use of usually. In fact, sizable number of respondents indicated that they either would not use the word 'sometimes' or could use it rarely. Understandably, this does not indicate emphasis as people would want to use hedges to indicate. People also may not want to emphasize negative impressions typically, hence the rare use of sometimes as hedging in the respondent's speech repair process'

Findings on the distribution of respondents based on their regular choice of other modal verbs as hedging in repairs however showed that the word 'Probable' and 'Possible' were the most popularly used word in this category. While 'certain' 'definite' and 'clear' were rarely used. The revelation clearly shows that the basic principle guiding the use of hedges is politeness and being less direct. Here, words that were overly assertive were rarely used. That also has a sociocultural bearing as the studied population naturally favoured the principles of politeness and being relatively indirect in communication. On the use of Modal nouns; results showed that the distribution of respondents was based on the regular choice of modal nouns. The words 'possibility' and 'Probability' were favoured.

## Choices and Preferential Uses of Hedges

The findings from the collated data provided very useful information on the peculiarities associated with the choice of these words and expressions by the studied group. That has not been studied in many populations. Nevertheless, since various people across the world use English Language as influenced by a number of factors including culture and other major

languages, it is expedient to note that there would be favour levels of variations in the use of hedges in speech repair process. Hence, it is important to pay attention to the variations and peculiarities as underscored in this study. Positing from Ziran (2003) perspective, ‘politeness is a linguistic universal’, the choice of words may however vary.

### **Findings**

Findings revealed that the respondent’s choice of hedges aligned largely with the politeness and less directness principles of hedges in speech repair process and this aligns with the cultural practices of the target population. By implication English language use varied between groups based on sociocultural factors. Hence, aside for the basic principles of grammar especially in terms of lexis and structure; culture also played a principal role in language variations. Therefore, it is important to explore the factors and the patterns of variations between various groups of people that use English Language globally. However, the repair processes were largely controlled by the brain as one spontaneously self-repaired and self-initiated corrections of one’s own speech using different forms of hedging.

### **CONCLUSION**

Hedging is a veritable tool in speech repair process as it indicates; avoiding of absolutes, achieving of politeness and accomplishment of tactfulness through various forms of hedging within the same speech process. Finally, this linguistic system occupies a central position in the mental structure, connected to the cognitive systems that register all other experiences including the linguistic repertoire of individuals who engage in speech repair process. Although the physical basis of language lies in the lips, the tongue, or the ear, ultimately, language is brain-based. Moreover, the primary language organ is the mind and hence, in the process of speech event, the brain is at alert and automatically locates the points of errors and deciphers a possible correction mechanism.

### **Recommendation**

The paper recommends that linguistic system occupies a central position in the mental structure, connected to the cognitive systems that register all other experiences thus building a bridge between neural networks and linguistic networks. This reveals that the structure of the brain can be determined from the linguistic evidences. Therefore, the human brain should be dully enlisted as a major organ of speech as the brain plays a key role in both hedging and speech repairs processes.

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