

SLIPS OF THE TONGUE - A PILOT STUDY IN TAMIL

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DEDICATED TO:

The two people who mean the most in my life

AMMA AND APPA

and

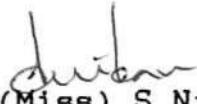
The person to whom I owe all that follows

KARANTH MA'AM

CERTIFICATE

This is to certify that this Disertation entitled:
SLIPS OF THE TONGUE - A PILOT STUDY IN TAMIL is the
bonafide work in part fulfilment for the Second year MSc.,
(Speech and Hearing) of the student with Reg.No.M9316.

Mysore
May 1995


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C E R T I F I C A T E

This is to certify that this Dissertation entitled :
SLIPS OF THE TONGUE - A PILOT STUDY IN TAMIL has been
prepared under my supervision and guidance.



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DECLARATION

I hereby declare that this Disseratation entitled: SLIPS OF THE TONGUE - A PILOT STUDY IN TAMIL is the result of my own study under the guidance of Dr.Pratibha Karanth Prof. and Head of the Department of Speech Pathology, All India Institute of Speech and Hearing, Mysore and has not been submitted earlier at any University for any other Diploma or Degree.

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INTRODUCTION

"Work is the curse of the drinking classes" Spooner was alleged to have said, when he actually meant "Drink is the curse of the working classes" "you have hissed all my mystery classes", he was heard to have said when he really meant "you have missed all my history classes", making him famous in history as the man who had a special talent for slips of the tongue.

Everyone, in every walk of life is concerned with language in a practical way, for we make use of it in virtually everything we do. For the most part, our use of language is so, automatic and natural that we pay no more attention to it than we do to our breathing or to the beating of our hearts. But sometimes our attention is drawn: we are struck by the fact that others do not speak quite as we do or we observe a child learning to talk, or we wonder whether one or another way of saying or writing something is correct.

What makes it possible for a person to produce and understand novel sentences? If we are able to understand the nature of language, we must be able to explain this ability. It cannot be accounted for simply by listing all

possible sentences, in principle the number of sentences is infinite. Given the finite storage capacity of the brain, one cannot store all possible sentences of a language, though we can store words as they are finite in number. but there are rules for well formed words, 'Glopple' could be an acceptable word for a new product, but 'nga' could never be used in English, even though it is a perfectly good word in Twi language in western Africa.

Some researchers have noted that as language users we all experience occasionally difficulty in getting the brain and speech production to work together smoothly. Minor production difficulties of this sort have been investigated as possible cues to the way our language knowledge may be organised within the brain.

There is for example, the tip-of-the-tongue phenomena in which we feel that some word is just eluding us, but it just won't come to the surface. Studies of this phenomenon have shown speakers generally have an accurate phonological outline of the word, can get the initial sound correctly, and mostly know the no. of syllables in the word. This suggests that our word storage maybe partially organised on the basis of some phonological information and that some words in that

'store' are more easily retrieved than others. When we make mistakes in this retrieval process, there are often strong phonological similarities between the target word and the mistake. Mistakes of this type are often referred to as malappropisms.

A similar type of speech error, the topic under study are the 'slips of the tongue' which often results in tangled expressions such as a 'long story short' (for long story short) and the 'thine sing' (for sign thing). God was described as a 'shoving leopard to his flock' and a student was admonished for having tasted the whole word" when actually what was meant was 'wasted the whole term'.

Most everyday tongue-slips, however are not as entertaining. They are often simply the result of a sound being carried over from one word to the next, as in back bloxes (for black boxes) or a sound used in one word in anticipation of it's occurrence in the next word as in noman numeral (for Roman numeral). It has been argued, that slips of the tongue are not random in that they never produce a phonologically unacceptable sequence, and that they indicate the existence of different stages in the articulation of linguistic experiences. Although the slips are most

treated as errors of articulation, it has been suggested that they may result from 'slips of the brain' as it tries to organise linguistic experience.

A slip of the tongue is a deviance from what the speaker had in mind to say. Somewhere along the way of generation of an utterance, a mistake is made, and the result is a lapse, much to the surprise of the listener and the speaker himself. A slip of the tongue (spoonerism) is not a mispronunciation due to faulty movement of articulators (slurring) and not a mispronunciation due to faulty word knowledge said Nootboom in 1969. The deviation in performance can be in terms of the speaker's current phonological, grammatical or lexical intention. The deviation is almost always detected, not necessarily consciously, by the speaker and corrected.

Regularly plurals like mans and sheeps probably are produced by every English speaking child. On the basis of 'look at this', some children have said 'I'm looketing'. When told 'you must behave', a child may reply 'I'm being haive'. One child used bate as the past tense of beat, comparing our approved ear:ate.

Adults produce forms like these too, which are more apt to be perceived either as 'slips of the tongue', or perhaps feeble attempts at humor. Examples of the former are 'I could eat a whole another apple' or saying over the phone 'It's for she'. A clear analogical basis for the coinages can be discerned.

The slips further show some regularities which tell us a considerable amount about the process involved in producing speech. For example mistakes nearly always take place within a single 'tone group' - a short stretch of speech spoken with a single intonation contour. This suggests that the tone group is the unit of planning and within the tone group, we note that items with similar stress are often transposed as in 'A gas of tank' (a tank of gas).

Further a sounds are switched initial sounds change place with other initial, final with final and so on as 'Reap of hubbush' (heap of rubbish), Hass or grash (Hash or grass).

Boomer and Laver (1968) found that 'segmental slips' obey a structural law with respect to syllable place in that syllable-initial segments interfere only with other syllable

initial segments, final with only final and nuclear only with nuclear.

Given the reality of semantic properties of words, it is seen that generally semantically similar words interchange (eg. verbal output - verbal outfit), (sufficiently ambiguous -> sufficiently ambitious), semantic errors with no obvious phonological similarity also occur as (I'm going to England in May -> I'm going to April in May) (He has to pay her alimony -> He has to pay her rent). Other examples would be that of calling someone else's dog by the name of one's own dog, or addressing the new secretary by the name of the old secretary.

At various stages in the production of a sentence, suprasegmental values are assigned to the elements making up the surface string. Slips can occur at each stage and the independence of the different suprasegmental operations is attested to by the differing character of the errors at each stage. Word stress errors, in which wrong syllable of a polysyllabic word is emphasized, shows a curious regularity: the erroneous stress patterns usually that borne by a morphological relative (eg. they are not psycholinguists they are not psycholinguists the price of lettuce has skyrocketed -> sky rocketed.).

Hence, it can be concluded that errors in language are not random, they seem to be based on the mental grammar utilized by speakers when they encode ideas into utterances such errors show that even though discrete elements of sounds are not obvious in ordinary speech, organisation in terms of discrete sounds does seem to exist at some earlier stage in the process. However the organisation of discrete sounds is not based entirely in our system of phonetic elements.

Some errors involve meaning as well as sound. These result from the fact that words of a language often consist of more than one meaningful element or morpheme. Some speech errors show that there can be a breakdown in the rules by which words are formed from the component morphemes. The result is words such as 'irregardless', 'ambigual' and 'motionally' which are non-existent but possible words. Such errors suggest that we learn morphemes and the rules for their combination separately and that this gives us the ability to recognize and form new words. Many morphemes, such as the indefinite - article morpheme 'a' or 'an' have alternative pronunciations depending on their 'context'. Errors such as 'a burly bird' for 'an early bird' show that when segmental disordering occurs that changes a word beginning with a vowel to one beginning with a consonant or

vice versa, the pronunciation of the indefinite particle is changed to conform to grammatical rules despite the error. Moreover, when complete words are exchanged, they are usually exchanged with words of the same grammatical category, which indicates that words are represented in memory along with their grammatical characteristics.

Aphasic speakers too exhibit a more severe form of these errors which are variously termed as paraphasias, agrammatism etc. The aphasic may say spade for fork and hoe for rake, which maybe misinterpreted as a 'slip of the tongue' unless the context in which the error occurred is examined.

On studying the slips of the tongue in normals and comparing it to pathological speech, Ewa Talo (1980) affirmed that normal speakers often either correct their lapse or by pausing indicate that they notice it, while on the other hand aphasic patients seldom correct their errors, as it is believed that these errors go unnoticed by speakers. Increased knowledge of differences and similarities between speech errors made by normals and by aphasics will improve diagnostic and therapeutic work with language disordered patients.

Literature in English and other foreign languages are abundant with data on occurrence of slips and influences of other variables ie. stress, intonation, semanticity etc. Literature also reveals the lack of data on these aspects in Indian languages. Hence this study was taken up to verify to whether the same principles applying to English and other languages could be generalized on to the Indian languages.

REVEIW

The Reverend William - A.Spooner, dean and warden of New York, Oxford is famous in the English speaking world as the man who had a special talent for 'slips of the tongue' in which two sounds of an intended utterance are transposed. Although it is not certain that he actually made all the slips attributed to him, many spoonerisms are legendary. Among well known spoonerisms are (in address to a rural audience) "Noble tons of soil" and (addressing a student) "you have hissed my mystery lectures". "Infact you have tasted the whole worm". Perhaps the most endearing of these slips is "the queer old dean" for dear old queen.

In 1895, the first major psycholinguistic analysis of linguistic errors together with a corpus of over 8000 illustrative errors, was published in Vienna (Meringer and Mayer, 1895). Wundt (1900 in Europe and Bawden (1900) were interested in these data as 'windows into the mind'. In this area, Freud's 1901 paper was seminal. Freud contended that the frequency of errors corresponding to a specific situation's cognitive set increased as the subject's anxiety toward that situation increased.

Search of literature has turned up very few systematic studies of tongue slips. In everyday circumstances our own tongue slips are simply not heard, nor are those made by others. Most writers have been content with a superficial description of tongue slips borrowing chiefly from philology and descriptive categories as assimilations, "dissimilation", analogy etc. A possible reason for this superficiality may be that tongue slips have been assumed to constitute, departures from normal behaviours and contention that the tongue slips have practically no rigorous structure.

CLASSIFICATION OF SPEECH ERRORS:

Wells (1951) proposed a classification system of speech errors follows:

<u>ERROR</u>	<u>EXAMPLE</u>
1. anticipations	The new Mel Broohs Film -> The new Bel...
2. perseveration	Practical classes -> Practical krasses
3. addition	Better off than -> better off wise than
4. omission	Never lets -> nets

- | | |
|---|--|
| 5. exchange | On a table round you ->
round a table on you. |
| 6. substitution | engineering job ->
engineering degree |
| 7. substitution
(derivational error) | Contraceptives -> contracep-
tion |
| 8. blend | Hilarity or hysterics
hilarics. |

Fromkin (1973) classified phonemic segments depending on shared properties. In speech errors, a single feature could be disordered while all other features remained as intended; for eg. 'clear blue sky' was transposed to 'Glear blue sky', where a voicing switch occurred; the voiceless velar /k/ became the voiced /g/, and the voiced bilabial /b/ became a voiceless /p/. She proposed that unless the individual features had independant existance in mental grammar, such errors could not be accounted for some common error patterns are as given below:

ERROR

EXAMPLE

- | | |
|------------------|--|
| 1. Anticipation | A reading list -> A leading rist |
| 2. Perseveration | Pulled a tantrum -> pulled a
pantrum. |
| 3. Reversals | Left hemisphere -> Heft hemisphere |

Vowel errors

1. Reversals Feet moving -> Fute meeing

Other errors

1. Additions Optimal no -> moptimalno

2. Movement Ice cream -> Kise cream

3. Deletion Chrysanthemum plants ->
Chrysanthemum pants

4. Cluster split or Damage claim -> Damage dame
moved.

TONGUE SLIP LAWS

Wells (1951) also formulated the following laws of slips of the tongue:

1. Each speech error results in a sequence of sounds that is permitted in the language being spoken. Thus a speech error in English should never result in a sound as /btir/ since English words cannot begin with /b/ followed by /t/.

2. The second law is that, for segmental errors, the beginning of a syllable can exchange only with the beginning of another syllable and similarly for middle and ends of syllables.

3. The final generalization is that segmental errors tend to occur within major syntactic constituents and word errors occur across syntactic boundaries. A consequence of this third law is that sounds often shift between lexical categories for eg. pronoun-verb, since a constituent typically contains only one item from a category. When words exchange, however they usually do so with items from the same class.

Boomer and Laver's (1968) analysis of segmental slips revealed a number of significant patterns which they presented as tongue slip laws:

- A. Slips involve the tonic word, either as origin or a target with tonic origins predominating.
- B. The target and the origin of a tongue slip are both located in the same tone group.
- C. Exceptions to law B form another structural class of their own; where target and origin are located in different tone-group each would be in it's own tone group.
- D. The original syllable and the target syllable of a slip are metrically similar, in that both are salient, or both are weak with salient pairings predominating.

- E. Segmental slips obey a structural law with regard to syllable place, that is initial segment in the original syllable replaced initial segment in the target syllable, nuclear replaced nuclear and final replaced final.
- F. Segmental slips obey phonologically orthodox sequence rules ie. segmental slips do not result in sequences not permitted by normal phonology.

EXPLANATIONS FOR OCCURRENCE OF TONGUE SLIPS:

A. SEMANTIC SIMILARITY AS A FACTOR IN WHOLE WORD SLIPS OF THE TONGUE

Given the reality of semantic properties of words, semantically similar words would be expected to interchange. Examples of such semantically and phonologically similar items were given by Fromkin (1973):

T : A verbal output

A : A verbal outfit - output

T : Sufficiently ambiguous

A : Sufficiently ambitious.

Semantic errors where there is no obvious phonological similarity also occur, as:

T : She's marked with a big scarlet A

A : She's marked with a big R - uh - A.

While it is not really possible to know the mechanism by which a 'prearticulatory competing plan' becomes available, it seemed possible that the prespoken 'scarlet' triggered 'red' which, because it began with 'R' competed with an intended 'A'. It is not the specific word that is repeated or that preenters but rather a word in the same or related semantic class.

Some examples were also cited by authors in which the error and the target word are in antonymous relationship (early for late) or are co-hyponymous (eg. red for black and hour for week), or are related in other similar ways.

Baars, Motley and McKay (1975) reported that when spoonerisms were elicited by their experimental techniques, errors that resulted in real lexical items (eg. barn door for darn bore) occurred significantly more often than errors in which the resulting pair would be a nonsense one (eg. bart doard for dart board).

Sometimes, a whole set of words may have to be run through until the right word is got. Meringer (1895) gave a number of instances of mixing up the names in his family group, calling his wife by the name of his dog, or being

called by her by the name of their maid. What this suggests is that when names in these adhoc groups are of high and approximately equal frequency, they are more likely to be confused with one another.

The reason we do not produce synonyms in semantic group slips of the tongue is that to speak a synonym would not be a slip since the sentence would be conveying the meaning intended, thus confusing the definition of a slip.

B. TRANSFORMATION ERRORS

Studying the work of Fromkin and others on speech errors, David Fay (1980) reported an emerging picture of a close correspondence between the linguistic descriptions of grammar and the psychological states that underlie speech.

Some evidence for the use of linguistic rules in speech production were discovered by Fromkin. These rules are primarily morpho-phonemic (eg. the rule deleting a word final /g/ when preceded by a vowel) and not syntactic. In particular it was hypothesized that the mental operations carried out in producing an utterance included transformations. This was designated as transformational hypothesis.

In general, a transformation consists of 3 parts: a structural analysis (SA); a structural change (SC) and conditions in the application of the rule. Considering first the structural analysis of a transformation, processing of a rule may go wrong in 3 ways:

1. The device applying the rule may go wrong. The speaker can misanalyze a phrase marker such that the rule applies when it should but in correctly.

E - Why do you be an oaf sometimes?

T - Why are you be an oaf sometimes?

2. The device may make an incorrect decision that the structural analysis of an obligatory rule does not fit a phrase marker, when it actually does and hence this rule cannot apply.

E - Why it is - why is it that nobody makes a decent toilet seat.

3. Finally the device may misanalyze a phrase marker, so as to allow a rule to apply when it should not.

E - How do we go

T - How we go.

Errors could also be made in carrying out the elementary transformation that comprise the rule. This

type of transformation moves an element specified in the structure analysis to a new position and then deletes the original. Of the 2 elementary transformations (adjunction and deletion), it is possible that only one would be performed. If the deletion has skipped operation, the following type of errors would occur.

E - A boy who I know a boy has hair down to here

T - A boy who I know has hair down to here.

Errors that violate the conditions on transformations are also considered. The restriction is imposed by simply limiting the rule to main clauses violation of restriction creates errors such as -

E - I know where is a top for it

T - I know where a top for it is.

Finally, no 'wh' phrase, that is on the left branch of a longer noun phrase can be moved out of that phrase. Instead the whole NP must be moved. This situation holds in the following error.

E - Go ahead and do what you're going to do and I'll be there in a minute.

T - Go ahead and do what else you're going to do and I'll be there in a minute.

Convention prohibits 'what' from being moved out of the NP 'what else'. Violation of this restriction results in 'else' being in its deep structure position.

C. ERRORS OF STRESS AND INTONATION:

Anne Cutler as cited in Fromkin's - 'Errors of linguistic performance - slips of the ear, tongue and hand' (1980) states that correctly produced sentence involved the successful imposition of suprasegmental features at several points; the assignment of primary lexical stress to the correct syllable of a polysyllabic word, the correct placement in a sentence and within each constituent of it and the imposition of an intonation contour, the latter determined by a number of factors - linguistic, paralinguistic and pragmatic.

1. Lexical stress errors: This is by far the most commonly collected species of suprasegmental errors. Fromkin included a large number of examples of misplaced word stress. eg.

I put thing in that abstráct that I can't justify.

You are in a real advántage - ádvantágeous position.

In the 2nd example the erroneous stress had been detected and the error corrected before utterance of the word was complete, whereas in the 1st example - the whole word was spoken with incorrect stress.

The theory of psychoanalysis (Psychoanalysis)

Computed (computed (From Fromkin, 1976)).

The stress shift in the above examples could be held to be a consequence of the error of syllable addition or omission.

It is immediately noticeable in these errors that the stress placement in each case suggest another existing word, moreover a word that is closely related to the target word in both form and content, being a different derivative from the same root morpheme. Thus abstract (N) bears the stress pattern of abstract (V).

One possible explanation for stress misplacement was that it resulted from a metathesis of stress markings (for eg. 'with') analogous to the metatheses of other elements. Another possible explanation for such errors is that they arose at the point at which the motor programs for the articulators were activated not by selection of the wrong

programme but rather a blend between adjacent forms with a tendency toward semantic relatedness.

2) Errors of phrase and sentence stress:

Stress placement errors at levels higher than word also occur with a reasonable degree of frequency. The degree to which these types of errors are detected by the hearer differ, stress errors within the phrase often stand out with the same glaring obviousness as lexical stress errors, although they do not seem to occur as frequently. The following example is typical.

Q. You ate a cookie didn't you?

A: No p^eanut b^utter (T: p^eanut b^uter).

The stress shift might result from a single exchange of stress features, since in the majority of cases, only 2 words are involved, one with primary and other with secondary or tertiary stress. No phonetic accommodation is involved since within word stress remains unaltered, the exchange might have taken place at a low level in the production process. On the other hand, the stress shift might be a consequence of an independent error involving (eg), a shift or exchange of grammatical marking otherwise undetectable in any surface phonetic change.

Fromkin (1976) cited cases in which the shift of a bound morpheme precipitated a change in stress patterns.

Lárry's Hýman's pàper (T: Lárry Hájman's páper).

The evidence available so far does not suffice to decide the issue, nor does a significant amount of independent evidence exist that might shed additional light, although the malappropriism data show a tendency for nominal compounds to substitute for other nominal compounds having stress patterns and one element in common (for eg. eár canāl for birth canāl, máilbox for lúnch box, ráilway station for rádio station, computér progrām for TV prōgram etc.).

It is possible that primary sentence stress is often misplaced and that what the hearer understands is in consequence not what the speaker intended, but unless the misplacement is corrected, there is no way of knowing that an error has occurred.

It has been frequently noted by speech error researchers that sentence stress interacts with other errors in some interesting ways. Boomer and Laver (1968) pointed out that slips usually involved the word bearing heaviest

stress in a 'tone group' (phonemic clause), especially as the origin of an intrusion and furthermore that the 2 elements involved in a metatheses were nearly always of the same degree of stress.

3) Errors of intonation contour:

Fromkin (1976) contended that intonation contours over and above sentence stress patterns depend on several diverse factors - whether the sentence embodies a statement of Yes-No question, references to the discourse context, the emotional state of the speaker etc. Should a speaker, misapply an intonation contour, then the listener would probably never diagnose an error but instead will understand the utterance differently from the speaker's intention.

It is possible however to hear contours being misapplied. In particular, a terminal contour may not be applied when it ought to be the sentence is left hanging or is applied when it ought not to be. The hearer's impression in the latter case would be that the speaker had changed his mind and decided to add more stress especially in order to remove unclarity or unambiguity or anomaly of the sentence content:-

Eg. You think you understand and later on you find you don't understand what he's talking about.

At various stages in the production of a sentence, suprasegmental values are assigned to the elements making up the surface string. Slips can occur at each stage and the independence of the different suprasegmental operations is attested to, by the differing character of the errors at each stage. Shifts do not usually affect sentence stress if open class of words are involved, but closed class words usually carry their stress patterns with them. Errors of focus (primary sentence stress), assignment and of contrastive stress are for semantic and pragmatic reasons, far less detectable than other stress errors, as also are the errors of intonation contour; however it is not possible to conclude that they do not occur. Sentence stress and intonation contour can be important factors in deciding the correct interpretation of other errors.

D. INFLUENCE OF EXTERNAL CONDITIONS

Examples of how external conditions (or internal intrusions) could account for some spontaneously produced errors were given by Fromkin (1973). Many of these

examples support Baars notion that errors occurred when prior to articulation, the speaker was presented with a competing plan. Considering the error given:

T - A student just completed an M.A. Examination

C - A student just competed an M.A. Examination:

The competitive nature of the examination intruded to present a competing plan. That compete and complete were phonologically similar may have increased the probability of occurrence of the error.

Fromkin (1973) said that speech errors involved more than sound units. Many morphemes have alternative pronunciations depending on the context. The indefinite article morpheme in English is either 'a' or 'an' depending on the initial sound of the word that followed a coat, a man, an orange, an old man. This rule depends on the morpheme and not on the sound. We tend to make the /a/ sound before a vowel and 'an' sound before a consonant. But such errors such as 'an' istem for 'a system' or a 'burly bird' for an 'early bird' show that when segmental disordering that changed a noun beginning with a consonant to a noun beginning with a vowel, or vice versa occurred the indefinite article is also changed so that it conforms to

the grammatical rule. The rule also operates when whole words are disordered as when 'an example of courage' was produced as 'a courage of example'.

Speech error can involve entire words. A common type of error is a blend of 2 words 'shrig souffle' for 'shrimp and egg souffle', 'prodeption of speech' for 'production and perception of speech'. These type of errors showed that the idea of the message was generated independently of the particular word selected from the mental dictionary.

According to linguists, who have analyzed spontaneous speech errors, these errors are non-random and predictable. Although it is not possible to predict when an error would occur or what the particular error would be, it is possible to predict the kinds of errors that could occur. Such predictions are based on the knowledge of the mental grammar utilized by speakers when they produce utterances. For eg. many errors involve the abstract discrete elements of sound called 'phonemes'. Although it is not possible to find these elements either in the moving articulators or in the acoustic signal, the fact that alphabetical symbols are used to learn to read and write show that they do exist. In addition if these discrete units were not real units used in

speaking speech errors cannot be explained in which such segments must be involved - as in substitutions or perseverations. Such segmental errors could involve vowels as well as consonants.

Moreover two consonants that formed a cluster could be either split or moved as a unit (foon speeding instead of spoon feeding). Such errors demonstrated that even though discrete elements of sound are not produced at the stage of muscular movement in speech, discrete elements do exist at some earlier stage.

THEORIES OF SPEECH ERRORS:

Freud (1901) wrote a paper suggesting that words sometimes slipped out from a person's subconscious thoughts often concerned with sex. Freud's careful observations and brilliant formulations concerning the unconscious motivations of tongue slips have surrounded this term with an aura of psychopathology. However, there seemed to be little to support the sexual origin myth. So laying aside the sex myth, it could be said that slips of the tongue tells us more about the way a person plans and produces speech rather than about his or her sexual fantasies.

Andrew W Ellis cited in Fromkin's (1980) reported that Freud held that speech errors arose from the concurrent action or the mutually opposing action of two different intentions. One of these two intentions was the meaning that the speaker continuously wished to convey. A second disturbing intention interfered with the conscious purpose and the speaker is unaware of the activity of the disturbing purpose within him, before it revealed itself in the slip.

Garrett (1975) was concerned with the ordering of the processes that resulted in overt speech and provided strong support for his claim that several properties of the error distribution seem best accommodated by 2 levels of syntactic processing, one of which gives rise to errors of word exchange and the other to errors in which bound morphemes shifted their attachment. These shift errors attach morphemes to stems without regard to the lexical identity or even the grammatical category of the error site thus producing such deviant forms as *tooken*, *putten* etc. Slips of the tongue occur when the speaker, at least at some level must utilize the grammar in ways that differ from that of the hearer and that the grammar itself is distinct from the production and perception process. It is yet not known whether the process of production and prediction utilize at various stages the same structures, units, rules, etc.

In the natural situation, one of the criterial attributes of the 'slips of the tongue' is the fact that people are usually surprised or embarrassed at their own utterances. The fact that the slips are unintentional is one of the most interesting point about them. It was clear however, that slips of the tongue are not unintentional in the sense of unplanned; speech errors are highly systematic and predictable. It may hence be said that these slips are not consciously intentional Garrrt's theory drew support from the following results:

1. The sound errors had a tendency to create lexical items, contrary to the assumption that such errors were influenced only by positional and phonological variables.
2. The interacting words in word blends, substitutions and misordering errors had a strong tendency to be phonologically related suggesting that the grammatical stage that manipulated words units represented phonological information.
3. Finally, the phonological and semantic similarity jointly affected the chances that a given word would substitute for an intended word.

Aitchinson (1983) broadly categorized speech errors into two basic types. First, were those in which a wrong item (or items) were chosen, where something had gone wrong with the selection process and secondly errors in which the correct choice of a word had been made but the programme set up for utterance had been faultily executed. Errors of the 1st type were most commonly whole word errors. There are 3 main types: semantic errors (or similar meaning errors), malapropisms (or similar sound errors) and blends. Explaining semantic errors, she postulated that a kind of naming error occurred in which the speaker got the general 'semantic field right' but used the wrong word as in:
Do you have any artichokes? I'm sorry I mean aubergines.

The second type of word selection error so called malapropisms occur when a person confuses a word with another similar sounding one. In real life, the results are sometimes hilarious, as when a lady lecturer claimed that -

E - You keep newborn chicks warm in an incinerator.

T - You keep newborn chicks warm in an incubator.

The third type of selection error, so called blends are an extension and variation of semantic errors. They are fairly rare, and occur when two words are blended together

to form a new one eg. "Not in the sleast", contains a mixture of slightest and least and 'expland' is a mixture of explain' and 'expand'. The second type of error is the programming error - in which the correct choice had been made, but the program set-up had been faultly executed. There are three main types transpositions, anticipations and repetitions which may affect words, syllables or sounds.

EXPERIMENTAL EVIDENCE FOR SLIP OCCURRENCES:

Dell and Luch (1981) hypothesize that sentence production was organized into independent positional and functional stages was tested using speech error data. Contrary to predictions from the hypothesis it was found that incorrectly substituted words often showed both a semantic and phonological relationship to the intended words. A proposal regarding the stages of production was developed that accounted for the results. It was assumed that information could leak between stages by way of the mental lexicon and caused the decision making at a given stage to be affected in a probabilistic manner by information from other stages.

Daneman and Meredyth (1991) investigated as to whether working memory capacity could explain individual variation in verbal fluency. The speaking span test developed by the authors was used. Subjects scores were related to their performance in 3 tasks for assessing verbal fluency (1) a speech generation task requiring subjects to produce one minute speech about a picture they were looking at 2) an oral reading task in which subjects read a prose passage aloud and 3) an adaptation of the slip technique designed to provide oral slips of the tongue. Results indicated significant correlations between speaking span and the 3 verbal fluency tasks. Subjects with small speaking spans were less fluent and more likely to produce speech errors. Speaking spans tended to correlate with the tasks of oral production and oral reading. Fluency and reading span was correlated with performance on the nonreading production tasks. The methodology was found to be a useful approach for revealing whether a specific type of oral reading error could be explained as a reading or articulatory feature.

Berg Thomas (1992) investigated the role of word class and gender during lexical access in language production. It was predicted that word class would constrain lexical access because it acts as the interface between the syntax and the lexicon. Gender, in contrast should not constrain

lexical access as it is a linguistic category that does not correlate; with any semantic or syntactic information. These predictions were tested against contextual and noncontextual word substitution errors in a corpus of German slips of the tongue, as well as verbal paraphasias produced by a German speaking aphasic patient. Results indicated that in all 3 subsets, both word class and gender influenced the search through the mental lexicon to a reliable degree, with word class making a greater impact than gender.

Berg Thomas (1992) studied phonological processing in a syllable timed Spanish language which had prefinal stress. An analysis of onset and stress effects in Spanish slips of the tongue revealed findings inconsistent with previous research on English and German spontaneous speech error. Patterns emerging from English and German speech data have demonstrated that speech errors involved more word onset than non-word onset consonants and that segments of stressed syllables more than unstressed syllables were more vulnerable to error. However, although Spanish is similar to German and English with respect to onset, onset errors outnumbering code errors, analysis revealed important differences. In Spanish, non word initial, syllable initial substitutions occur more frequently than word

initial errors. The frequency of segmental slips of the tongue might be attributable to chance. These findings contradicted expectations formed through the modes based on English, Dutch and German data.

Ferlier Rosa (1992) studied perception and transcription of naturalistic slips of the tongue. To investigate the accuracy and reliability of observational data on errors in spontaneous speech especially slips of the tongue, errors from a 45 min. broadcast on a West German radio station were examined. The radio broadcast was expected to simulate the conditions of normal speech production errors. Errors were recorded by listeners (N=4) who listened to the broadcast, and compared to the errors coded from a transcription of the audio tape recording. Correct positives, false negative, and false positives were coded. Of the 92 speech errors detected from the recording, 51 were slips of the tongue. The majority of slips of the tongue were either phonemic, grammatical or lexical, they were analyzed separately for each listener. These data called into question the published estimates of the rate of speech error and slips of the tongue a demonstrated that production and perception of errors could not be separated when recording frequency of occurrence suggesting that to

accurately count errors, tape recorded versions of speech should be listened to repeatedly by more than one rater.

ERRORS IN CHILDREN:

Smith and Bruce (1990) studied elicitation of slips of the tongue from young children. An investigation of the elicitation procedure for obtaining 'slips-of-tongue' from children, adults and normally developing children repeated short 'tongue twisters' and control phrases (Peggy Babcock vs. Peggy Johnson). Various phonetic transcriptions were made and subject's errors were subcategorized as substitutions, distortions, deletions etc. Some stimuli were also digitalized, and duration measurements were made of certain segments. Although findings from elicited 'slips of the tongue may not exactly parallel those of spontaneous slips, these methods resulted in subject's, producing many 'slips of the tongue'. Errors were more common for both groups in the experimental versus the control condition but the children made about 2.5 times more errors than adults. A majority of slips produced by children occurred in word initial position and were one feature errors or segment reversals. Results indicated that this elicitation technique was a viable method for obtaining

spoonerisms from children that allow substantial data to be collected in a short time.

Wijnen (1992) studied incidental word and sound errors in young speakers. the question addressed by the study was whether the language production mechanism differed from the adult system. This problem was approached by comparing some 250 incidental (ie) nonsystematic word and sound errors extracted from a corpus of tape recorded spontaneous speech of two 2-3 year old boys with tape recorded speech errors.

The child language corpus that was used in this study consisted of transcriptions of two Dutch boy's home taped spontaneous speech and (N & T). Approximately one hour of recording/week was collected during a 9 month period.

The adult data replicated findings reported in the literature, and in turn, most of the error patterns in the children were similar to those of adults except for 3 differences.

1. Error frequency was considerably higher in children than in adults.
2. Lexical substitutions involving phonologically similar words occurred less often in the children than in the adults.

3. Finally, in contrast to the adult corpus, the child corpus contained sound errors in function words. These differences were interpreted as indications of gradual developmental alterations in the language production mechanism mainly reflecting the degree of practice and automatization.

Jerger (1992) studied some general properties of 'slips of the tongue' in young children. In an analysis of 907 slips of the tongue made by children, general properties of the slip were discussed, including the age at which children first made slips of the tongue, the similarities between children's and adult's slips and how slips changed. Subject's slips were collected by phonetic transcription immediately following their occurrence.' Results indicated that these children made most of same types and proportions of slips as adults. Phonological errors outnumbered lexical ones, which exceeded phrasal errors. Like adults children made more substitutions than additions or omissions. Children's slips supported a theory of speech planning in which propositional, syntactic, intonational, content word and phonological levels had somewhat independent states; however, there was little evidence for a derivational morphological level.

Jerger (1992) studied phonetic features in young children's slips of the tongue. The form in which phonological information was scored in the lexical entries of young children and how this changed over time were questions addressed. Earlier research had shown that children as young as 1:7 made slips in which single consonant or single vowels were substituted or exchanged, implying segmental organization in phonological representations. Here a corpus of 366 consonant substitutions and reversals were subjected to multidimensional scaling analysis and were shown to be governed by patterns of phonetic similarity, indicating that these segments had similar phonetic structure. Although both adults and children erred on the 'place of articulation' feature, most often and 'nasality' least often, children produced 'voicing' feature error less often than adults did, indicating that voicing might have been a more important organizing principle for young children than adults.

SLIPS OF THE TONGUE IN NORMAL AND PATHOLOGICAL SPEECH

Sheroan and Henderson(1988) analysed spontaneous language in the older normal population. Language sample data from normal subjects spanning an age range of 40-79 was

collected in order to determine how normal aging might affect performance on a picture description task, routinely used for assessment of aphasic individuals. 60 normal adult native English speakers with no history of neurological defect or communicative disorder participated in the study. A spontaneous language analysis system was used to analyze each sample. For most variables, performance was stable across in the age span studied with no significant changes indicated with aging. However, a significant increase in the number of paraphasia and a significant decrease in communication efficiency was observed with an increase in age. Establishing normative data necessary to separate aging effects from the communication impairments in the older population.

In the literature on slips of the tongue, there are numerous references to pathological speech pointing out the similarities between normal and pathological speech errors.

In adults with brain damage, there may exist articulatory disturbances of various kinds. It is sometimes very difficult to differentiate between these disturbances which often look rather similar on the surface in speech output .

Paraphasia vs slips of the tongue:

Since normal slips are universally held to be error of performance, all paraphasias that resemble tongue slips could best be classified as disturbances of performance. However there are significant quantitative differences often of a polar nature and also qualitative differences, some of which also involve language specific competence constraints on phonological productions possible in other language.

Main types of slips:

Normal speech errors consist mainly of anticipations, perseverations and metathesis. The first two are either replacements (movement errors), copying replacements or copying errors (without replacement). Such errors in Aphasia (of all types) are simply more frequent than errors in normal speech - a quantitatively significant but not important difference.

Paraphasias in aphasic language:

Paraphasia involves the unwitting substitution of ill chosen words and phrases in the stream of speech Goodlars,

1976). The following are the paraphasias encountered in Aphasic language.

1) Phonemic paraphasias - in which transformation occurs through elementary operations - deletions, additions, displacements - bearing on phonemes of the intended words or through combinations of elementary operations (Alajouanine and Lhermitte, 1969, 1970).

eg. descending - descendant
abominable - amobinable.

2) Monemic paraphasias- Which are segments composed of at least 2 existing monemes, and used as if they were single words although not existing as such in the community accepted word inventories (Lecours and Lhermitte, 1972).

Eg. America - Algerica.

3) Verbal paraphasias - a large majority of which are word substitutions. Further specification of verbal paraphasias is possible: semantic verbal in which there is an obvious conceptual relationship between substituted and substituting words.

eg. hat -coat
good - bad

Formal verbal in which there is an obvious morphological relationship between substituted and substituting word.

eg. name - mane

mane - mean.

Semantic and formal verbal in which there is an obvious morphological relationship between substituted and substituting words are apparent.

eg. glaye - glass

4) Syntagmatic paraphasias - most of which are substitutions involving several components of a relatively simple syntagm and often are leading to production of a coined expression.

eg. I have a helicopter as everybody who was with

DUPONT -> ... who was with everybody.

THE ACTUAL RELATION:

a) Syllable position - As many authors have emphasized normal slips of the tongue nearly always respect positions in the syllable and in the foot (eg.) metatheses occurs only between element in the same syllable position and between 2 stressed (or more rarely, 2 unstressed) elements. This holds to far lesser degree in all types of aphasia, where syllable position is not respected.

b) Phonological blends - Phonological blends occur frequently in normal speech errors. Phonological (though nor morphological) blends are extremely rare in aphasia other than very mild ones infact authors have detected none in severe aphasics.

c) Morphological editing - Morphological editing (rescue) often occurs in normal speech errors, that is, a control mechanism replaces phonologically wrong sequences with a morpheme of the language. This rarely happens in aphasia. This is probably another very important quantitative difference which seems to show that morphology on the whole, is unable to interfere in the production of phonological paraphasias.

d) Repair - Successive approximations are often unsuccessfull in all types of aphasia. However when a healthy person notices production of a slip, he/she often corrects it immediately (often during production). This correction is rarely wrong and is followed by a second correction which is usually successful.

This is again a very important quantitative difference, and sheds light on the distinction between competence and

performance. Successful correction of slips by healthy persons points to intact competence, whereas lack of success by aphasics point to disturbed competence.

e) Multiple interdependent substitutions - The way from the target word to the phonological speech error can nearly always be bridged by a single step, or by simultaneous steps (ie.) the error path (Dressier, 1984a) between target phoneme (or phoneme sequence) and actually produced phoneme (or phoneme sequence) involves a single substitution. This is yet again a very important qualitative difference (already noted in Dressier, 1973). In Italian material of Dressier et al. (1986), there were, within the slips, 16 cases of multiple simultaneous (independent) substitutions, but only 2 cases of multiple successive (interdependent) substitutions.

Other substitutions:

Substitutions that cannot be classified as anticipations, perseverations, metatheses, or blends are rare in normal speech errors but are frequent in all types of aphasia except anomic aphasia.

Qualitative differences:

Qualitative differences between normal slips of the tongue and aphasiological errors falsify the view that all (phonological) paraphasias are generated by the same mechanism as normal (phonological) speech errors and that the only difference is in the quantity of these errors. In very severe aphasics, rarely phonemes may be missing.

Neologisms: Phonological neologisms, (ie) phonological words that do not contain morphemes of the language in question are typical of jargon aphasia but occur in the other types of aphasia also.

This is never the case in normal speech. They can always be derived from target forms by means of anticipations, perseverations, metathesis blends, or less frequently other substitutions.

Monophonemic affricates: Monophonemic affricates can be dissociated (very rarely) in severe aphasia rarely phonemes may be missing.

Phonotactic constraints: Another quantitative difference is the fact that phonotactic constraints in possible phoneme sequences seem to be nearly always respected in normal speech errors, but not in aphasia.

In aphasia, such violations of phonotactic constraints are much more frequent.

A corpus of normal errors collected by Fry (1969, Hill, 1972) consisted of about 200 slips of the tongue, the speakers being adults. The errors were collected by Tabo, Only errors in spontaneous speech were included.

The pathological speech errors were collected in therapy sessions in free conversation with aphasic patients. Most of the patients were between 37 and 76 years of age. Most of them had suffered CVA's causing aphasia.

From the data analyzed, some tentative conclusions could be drawn. Although all kinds of errors occurred in both normal and the pathological corpus, there was a clear difference between the error types in the two types in the quantitative sense.

Syntagmatic errors were more common in the normal corpus while paradigmatic errors prevailed in the pathological material. Temporal ordering of units seemed to be a difficulty in the normal population, whereas errors in the pathological sample reflected difficulty in choosing the correct unit or segment from the linguistic paradigm.

Buck Wingham (1992) investigated the mechanism of phonetic paraphasias. These mechanisms involved in the production of phonemic paraphasias were considered. A taxonomy of error types was provided where it was argued that there was a significant qualitative overlap in the kinds of errors witnessed in phonemic paraphasias and in segmental slips-of-the-tongue. There was ample historical precedent for the observation of this qualitative relation between fluent paraphasic errors in normal lapsus linguae. Some researchers have played down this qualitative similarity but it was shown that when certain nonfluent aphasic phenomena were dissociated from the fluent paraphasias, the qualitative relation between the paraphasias and normal tongue slips remain feasible.

Beginning with the seminal work of Spooner, several theories, classifications and explanations have been offered

to the occurrence of tongue slips. Though the tongue slips may appear of random occurrence, review has shown that they can be compartmentalized, many versions of these divisions having been given. Studies on pathological language have revealed that the aphasic errors (so called paraphasias) also differ markedly from tongue slips, with regard to the laws binding them. However, further study as regards this aspect is warranted.

Seeing the vast expanse of literature available in the non-Indian language the need for a study in the Indian languages was felt. Hence this study was taken up primarily to:

1. To study the nature of slips in Tamil.
2. Their relevance to the aphasic error data.

METHODOLOGY

This section is devoted to the how's and why's of collection of the corpus.

Boomer and Laver's (1968) speech material was a collection, made by the author over a period of several years, of more than a hundred tape recorded brief excerpts of natural speech each excerpt containing a slip and some context, taken from conference discussions, broadcasts normal conversations, and from interviews with psychiatric patients, whose speech was free from pathological defects. Nootboom (1969) examined linguistically devised feature sets, and affirmed that these sets were better in describing the errors than a random set, showing that all the sets have some basis in production. Baars, Motley and McKay (1975) reported that when spoonerisms are elicited by their experimental techniques, errors that resulted in real lexical items occurred significantly more often than errors in which the resulting pair was a nonsense one. Smith and Bruce (1990) studied elicitation of slips of the tongue from young children using short tongue twisters and content phrases.

Ferlier Rosa (1992) studied perception of slips from a 45 min. broadcast on a west German radio station. The ratio broadcast was expected to simulate the conditions of normal speech production errors.

Wijnen (1992) in studying incidental word and sound errors in young speakers extracted from a corpus of tape recorded spontaneous speech of two 2-3 year old boys with tape recorded speech errors.

Collection by simple listening yields a large number of errors because it allows collectors to harvest the data from a sea of conversational and presentational speech that surrounds us everyday. But this method has some problems. To be entered into a collection, an error must be noticed by the observer and correctly remembered, and both these processes may be subject to bias. As a result error collections may not always reflect the actual distribution of error variables in language use.

The ideal collection method would involve a task or topic that imposes some control on the words and structures that the speaker uses, allowing the experimenter to collect specific kinds of error data, yet requires production of

fully spontaneous speech in conditions that absorb attention and prevent self-consciousness. Such methods have not yet come into widespread use, so most error studies rely on corpora selected by ear (or in a few cases by tape recorder).

The present study utilized corpora from 3 main sources radio broadcasts, television programmes and careful listening under conditions in which slips were more likely to occur as -

- 1) Conditions of extreme emotion
- 2) Rapid rate of speech
- 3) Conditions requiring an immediate answer.

The first corpus ie., the audio material consisted of careful analysis of two varieties of radio programmes - 1, conversations between people and 2, prepared monologues. Each programme was recorded for a period of 5 days, each session lasting a duration of 15 minute. The television corpus material consisted of interviews and conversations between different people, each session lasting for a duration of half an hour, recorded for a period of 3 days. It was decided to select these materials as it was observed earlier that these kinds of data were more prone to errors.

The third type of data, as mentioned earlier, involved careful listening under the above listed conditions.

In collecting data from these three sources, certain conditions were controlled as:

- 1) Tamil was the mother tongue in every case,
- 2) Error data were collected from the adult population.
- 3) Listening environment-external noise, quality of tape etc. were well controlled.

To compare the normal tongue slips with the aphasic speech errors a previously documented collection of errors made by Tamil speaking aphasics was taken (Srividya, 1990). Four Brocas aphasic's performances were compared with appropriate controls. All subjects were given the following tasks:

- a) Spontaneous speech
- b) Story narration tasks
- c) Grammaticality judgement tasks and
- d) Picture pointing task. The aim is to evaluate if there are any differences between the 'slips of the tongue' and the aphasic errors and the nature of the same.

RESULTS AND DISCUSSION

In studying 'slips of the tongue' in Tamil data was collected from radio broadcasting, television programmes and from careful listening under specified conditions. The corpus of audio material consisted of 2 types of programmes. One was a 15 min. broadcast consisting of interview sessions recorded over a period of 5 days (the programmes under this category were as follows-veedum vayalum, mannum manamum, magalirkkaga), the second consisted of recording of a prepared monologue for 5 days (The programmes were - Uzhaippavar arangam, veedum vayalum, ariviyal ayiram, ellorkum kalvi).

The television programmes consisted of conversations of 1/2 an hour with people skilled in their respective field(s) writers, painters, dancers, beauticians, farmers etc. These were also recorded over a period of 5 days (The programmes including manaimatchi, vayalum vazhvum, kanmani poonga, nalavazhvu).

In analyzing the 'slips of the tongue' in Tamil, with the corpus collected as described above the slips could be grossly classified under the following five categories:

- 1) A sizeable number of slips, resulted in erroneous utterances, nonsense utterances which did not belong to the native language.
- 2) Often words from the same class were substituted for each other (the slip conveyed the same meaning as the target but wrongly or differently).
- 3) In some instances, errors were noted when the emphasis on an action was not given, given in excess or was incorrectly given.
- 4) Frequently, transpositional errors occurred where the target word was transposed to the wrong position in the sentence.
- 5) Another type of error occurred when the error and the word preceding it were similar in context. The error occurred due to semantic proximity of the preceding word.

The total number of slips collected from the two programmes were around 25 and roughly estimating the total number of words before slip occurrence in the radio and television programmes (everyday conversation could not be considered in estimating the total number of words before slip occurrence, as it was not possible to predict their occurrence in these conditions) to be around 2000, it is possible to predict

that a slip occurred almost after every 80th word, the frequency being significant.

The following are the total list of errors collected from the 3 sources.

1. inmandalam
2. ni:r valaigal
3. desa bhaTi
4. menmai udhaya
5. pulavan kurippol
6. bha:dikka paduginraradhu
7. nariya varavaippu
8. pesangal ella:m
9. naay ulle vandadu
10. avargal elarthaiyum varaverkiren
11. aivappu colour selai
12. naan odikkondu ponen
13. adigamana naraiya payirchi
14. romba alavukku urudiya irrukka
15. soapkulle kannu poyduthu
16. kai thirandhu jennal ulle vittan
17. nalla saptutu edukku tho:nganum
18. kovil porathukku kalyanam paninda
19. sendru vandu

- 20. mozhikkunnu
- 21. ni sendru kondu-irundappo appozhdu
- 22. irrainerathil.

A majority of the errors underwent self-correction, while a small proportion remained uncorrected. The frequency of occurrence of the slips (one out of 80) showed that slips do occur quite frequently in everyday speech, but it is only very rarely that we bring it into conscious awareness. Slotting the collected corpus into their respective categories described earlier, we have -

A. Substitutions, deletions, additions in the target result sometimes in nonsense words, but these non-sense words are not such gross deviations as those seen in Aphasic errors.

Examples:

TARGET	ERROR
immandalam (This universe)	inmandalam (non meaningful)

ERROR DESCRIPTION 'immandalam' is the literary usage of 'indamandalam'. In the confusion between which one to use, the speaker retained the 'in', but omitted the 'da' hence causing a substitution of the bilabial nasal by a velar nasal.

'mozhikkunu' is not accepted in a formal situation as was the case above.

C. Sometimes errors occur because the emphasis on an action is not given, given in excess, or is inadequately given:

- | | |
|--|--|
| 1. T : naraiya payirci /
adigam payirchi
(abundant training) | E : adigamana naraiya
payirchi
(excessively abundant
training). |
|--|--|

ERROR DESCRIPTION: The speaker in his eagerness to emphasize the abundant training which was being given, overemphasized it, saying 'adigamana naraiya' instead of either 'adigam' or 'nariya.'

- | | |
|---|--|
| 2. T : oru alavukku urudiya /
romba urudiya irukka
(determined to some
extent) | E : romba alavukku
urudiya irukka
(very determined to an
extent). |
|---|--|

ERROR DESCRIPTION: The speaker was unable to decide whether the people he was referring to were very determined or determined to a certain extent and in this state of indecision, used both terms together resulting in an error.

3. T : ni:r nilaigal
(water reservoir)

E : ni:r valaigal
(water nets)

ERROR DESCRIPTION: speaking about water, fisheries, reservoirs etc. the mental imagery of fish and net was probably always in the speaker's unconscious, and hence he came out with 'valaigal', meaning net instead of 'nilaigal' meaning a reservoir (valaigal might probably occur a few words later).

After categorizing the Tamil tongue slips, attention can now be turned to the aphasic error data (the corpus of aphasic error data, as mentioned earlier was taken from a known sample of errors made by Tamil speaking aphasics).

The aphasic error data have been further categorized as follows for easier comparison with tongue slips.

1. The aphasic errors reflect a more serious language breakdown than the slips which represent some disorder more at the planning stage of the utterance, than the organization of language. Although phonetic errors similar to tongue slips occur in aphasic errors, the aphasics are seldom aware of their errors.

TARGET	ERROR
1. 6 manikku elunden . (awoke at 6'0 clock)	6 manikku elumben . (nonsense word)
2. Methai mele thonginen (slept on the mattress)	Methai mele thonginam (Nonsense word).
3. Kile ninna nari . (The fox which was standing below).	Kile ninnu nari . (nonsense word)

2) Large deviations from regular language usage are seen eg. tense markers, number and quite often gender rules are violated.

<u>TARGET</u>	<u>ERROR</u>
1. Pal villakite:n (Brushed my teeth)	Pal villakito:m (Brushed our teeth)
2. idli sapite:n (I ate idli)	idi sapidu (you eat idli)
3. ka:pi kudiceen (I (just) drank coffee)	ka:pi kudiceene (I already drank coffe long before)

3) Occasionally 'slip' like errors occur within the same class of works.

TARGET

ERROR

kaka parandu poccu
(Crow flew away)

kaka odi poccu
(Crow ran away).

4) Rules of syntax are often broken. Individual rules may be correct, but their sequencing is affected. Words and sentences are spoken out of context and it is sometimes very difficult to explain their occurrence.

TARGET

ERROR

vadai kaval ka:ta patti
poyta:l

patti kaval vadai
pogum

(The granny who was guarding
the vadas left)

(The granny guarding
vadas will go).

5) Self correction of errors is very rarely evidenced. On closely examining the slips and the aphasic error data, the following differences between the two seem to emerge.

1. Self correction is seen in majority of tongue slips but is of very rare occurrence in aphasic error.
2. Aphasics errors display more severe problem affecting language in general, affecting speech output, comprehension or repetition, and aphasics may seldom be aware of their own errors, even if the error is played back to them.

3. Aphasic errors too are rule governed, though less apparent.

The third part of the discussion deals with the English slips data (collected from literature) and determining whether generalization of rules across both languages is possible.

ENGLISH TONGUE - SLIP DATA:

The tongue slips in English have also been classified into distinct classes based on data available in literature.

1. The error is almost always detected, not necessarily consciously, by the speaker and corrected.
eg. How manysheep does the cat have in its house then
I'm sorry I mean mice, not sheep.
2. The target and the error are almost always located in the same tone group.
E : We'll go to taxi in a chomsky
T : We'll go to Chomsky in a taxi.
3. When segmental disordering occurs that changes a noun beginning with a vowel, or vice versa, the indefinite article is also changed, so that it conforms to the grammatical rule.

eg. E : a burly bird

T : an early bird.

4. When words are substituted, they are usually exchanged with words from the same grammatical category, nouns with nouns, adjectives with adjectives and so on.

E : A student just complete an M.A. examination.

T : A student just completed an M.A. examination.

5. A common type of error is a blend of 2 words.

E : Shrig souffle

T : Shrimp and egg souffle

6. Sometimes a voicing switch can occur

E : Glear blue sky

T : Clear blue sky.

7. Many-a-time semantically similar words interchange (may be because of the semantic proximity the error has to be target

E : A verbal outfit

T : A verbal output.

The target words may be in antonymous (early for late) or co-hyponymous relationships (red for black, or hour for week).

8. Another commonly occurring error is because of misplaced word stress.

eg. The noise sort of envelopes you- envelops you.

9. Another not so commonly occurring error, is the one because of intonational contours - not being applied when they ought not to or not being when they ought to eg. You think you understand and later on you find you dont understand - what he's talking about.

Studying the English slips of the tongue and the same in Tamil. The following similarities could be observed between the two languages.

1. The 'error' is almost always detected whatever be the language, and selfcorrection is evident.
2. The 'error' and the target word are generally locate in the same tone group.
3. Words when exchanged are done so generally in the same grammatical category.
4. Voicing switches sometimes occur.

The following conclusions can be arrived at as regards slips of the tongue, their relation to English slip data and to pathological aphasic error data.

1. The Tamil tongue slips seem to be governed by almost the same rules as those that govern the English slips, though a few language specific exceptions do exist.

2. The nature of the errors enable us to make a clear demarcation between the pathological aphasic error and the normal tongue slips.

SUMMARY AND CONCLUSIONS

Most literature on 'slips of the tongue' has been in English and other foreign languages such as French. Very limited data is available in Indian languages. Hence, to verify if the principles underlying English slips could be applied to the Indian languages (specifically Tamil), this study was taken up.

The corpus consisted of material from radio and television broadcasts and also careful listening under specified listening conditions.

A total number of 25 slips were collected, and examined. It was found that there were many commonalities among the slip data, and by devising a set of 5 patterns, it was possible to accommodate all the slips. The patterns underlying Tamil 'slips of the tongue' were then compared with the Tamil paraphasias and then with English 'slips of the tongue'.

CONCLUSIONS:

In comparing Tamil slips with Tamil aphasic error data, the following differences emerge -

* Aphasic errors violate more severely the linguistic boundaries/rules in a language than the normal slips of the tongue.

* Majority of the slips show a tendency towards self-correction, which is a very rare occurrence in the aphasic errors.

In comparing Tamil 'slip' data with data in English, the following commonalities emerge:

- * The 'error' is almost always detected.
- * The 'error' and target are located in the same tone group.
- * Words when exchanged are generally done so in the same grammatical category.
- * A voicing switch sometimes occurs.

LIMITATIONS OF THE STUDY

1. Since the purpose was mainly to check the similarity of Tamil slip with English ones, a detailed descriptive/quantitative analysis was not attempted.
2. Tamil aphasic error data was taken from an available sample of only 4 aphasics.

PROPOSALS FOR FURTHER STUDY:

1. Studies could be done on other Indian languages to see how well English slip data correlate with slips in other Indian languages.
2. A detailed linguistic analysis at word level could be attempted for a better understanding of the principles underlying slip occurrence.
3. A larger no. of errors over a longer period could be collected to check the validity of the results.

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