Slips of the Tongue Produced by Indonesian Children in Casual Conversation

Masitha Achmad Syukri, Universitas Airlangga

Abstract
As the sources of evidence for explaining the speech production process by human beings, slips of the tongue (SOT) are unintentional errors that may occur in children speech. In this study, the writer aims at finding the types of SOT, the frequency SOT, and the involved linguistic units and error mechanisms in SOT in 24 children’s speech aged 4-9 years old in informal conversation with the family members using Indonesian. All self-repairs done by the children are also identified. Each child’s speech was recorded within 5-10 minutes by using audio-visual recordings. The results show that 86 SOT occurred and were categorized into 6 types out of 11 types of SOT using Harley’s types (2001) with the word substitution as the most frequent type of SOT produced by the children (44.2%). Some children who realized their slips made self-repairs. To conclude, the word substitution type dominantly happens in content word or open-class word and involves the non-contextually determined error mechanism and phonologically and semantically related words. The involved linguistic unit is mostly the individual segment becoming an evidence that it is the discrete unit at some stage of the speech production process.

Keywords: content word; slips of the tongue (SOT); speech production process; word substitution

1. Introduction
Slips of the tongue or SOTs, according to Fromkin (1973), are errors in the form of unintentional movement, addition, deletion, blending, substitution and happen involuntarily within utterances. SOTs become a window onto the process of speech production (Harley, 2001). The person who just produces SOT may or may not realize it at the moment right after the SOT is produced. Based on Jaeger (2005), if people realize that they produce slips, they directly correct their slips by changing their utterances or giving a commentary for their unintended speech which is followed by their repairs. For those who are not aware of their slips, rather, they continue speaking without correcting their slips.

As unintentional errors, SOTs do not result from the bad grammar of the speaker, or lack of language knowledge of the speaker or worse memory of the speaker because in all cases the speakers are able to correct them. Freud (1975) stated that SOTs show the repressed thoughts as results from the psychophysiological factors including fatigued, excitement, strong associations, distraction, preoccupation and the like. The speech rate may be also possible to result in the SOT as stated by MacKay (1970, in Dell & Reich, 1980) that someone’s speech is more likely dealing with more SOTs as long as he or she produces the speech faster.

SOT may happen at anyone’s speech in any situation. Children may experience to produce SOT. To get broader insights and more comprehensive explanation on SOT especially produced by children, it needs studies on SOT produced by children in different languages and or different cultures. This current study tries to meet it by focusing on SOT produced by Indonesian children in casual conversation using Indonesian.

2. Literature review
At the beginning, studies on SOT were mostly conducted in adults’ speech. It can be firstly traced back to Meringer and Mayer (1895, in Poulisse, 1999) who grouped over 8,000 speech, reading, and writing errors into descriptive categories like slips of anticipation (bake my bike for take my bike) and slips of perseveration (pulled a pantrum for pulled a tantrum). Particularly on SOT produced by children, Warren (1986) who used two corpora consisted of a 23 month child who was talking to mother and 8 children aged 32-36 months who were talking to teacher using English language in natural situations showed that SOT appeared less in children’s speech rather than adults’.
Jaeger (1992) studied child’s slips of the tongue by examining the form in which phonological information is stored in the lexical entries of young children and adults, and how this form changes over time. The result reveals that compared to the adults model, voicing feature errors were produced less often by children than adults did. It indicates that voicing may be a more important organizing principle for young children than for adults.

Wijnen (1992) has also conducted a similar study by using spontaneous speech produced by two boys aged 2-3 years old in Dutch language. The boys’ speech errors were compared to adults’ errors of London-Lund corpus by Garnham, Shillcock, Brown, Mill, and Cutler (1982). The result shows that children produced more errors than adults, children rarely produced errors of lexical substitution involving phonologically similar words, and the children corpus contained sound errors in function words.

A similar comparative study was conducted by Ovchinnikova (2007) who compared the characteristics of slips of the tongue in narratives produced by Russian preschoolers aged 6 to teenagers aged 13-15 from the perspectives of competition models. The result reveals that the characteristics of preschoolers’ slips involved mistakes of lexical choice, structuring the utterances and articulation.

Altiparmak and Kuruoglu (2014) who used samples of 7 males and 7 females in each age of 4-8, 18-23 and 33-50 years old who were Turkish speakers observed children’s slips in unprepared speech of face to face interview section. The findings show that children produced slips more often than two groups of adults and the gender factor could not influence the number of slips in children’s unprepared speech.

Noticeably, some differences have been noted though. While Warren (1986) found that children produced fewer than the adults, the other results of comparative studies on SOT produced by children and teenagers or adults (Wijnen, 1992; Ovchinnikova, 2007; Altiparmak & Kuruoglu, 2014) reveal that children tend to produce SOT more often than adults. Hence, further research on SOT produced by children is worthy to conduct, particularly on explaining the process of speech production in children because SOT are considered as the source of evidence in speech production process.

Poulisse (1999) stated that the researchers on SOT noted the kinds of SOT, the units involved in SOT, the regularities of SOT, the most frequent type of error, the condition in which the SOT may occur, and so on. Then, the results of those studied were discussed in terms of their implications for model of speech production. Harley (2001:376) categorized 11 SOTs considering based on two parameters, namely the linguistic units included in the error (covering the phonological feature, phoneme, morpheme, word, phrase, or sentence) and the error mechanisms involved (covering the blend, substitution, addition, or deletion of units).

In terms of children’s slips and adults’ slips, Poulisse (1999: 45) stated that studies of slips produced by children have led to that most of the claims true for adult slips of the tongue are also true for children’s slips. As noted by Stemberger (1989, in Poulisse, 1999), the speech production process in children can be described by the adult models.

According to Levelt (1989), the stages in human speech production include conceptualization, formulation, and articulation (in Harley, 2001). In the first stage, that is conceptualization, the speakers generate message or information going to convey. This stage involves the macro planning (planning the content) and the micro planning (planning the form of the message). The output of first stage is a preverbal message that can be the input in the second stage that is formulation. In this stage, the conceptual representation is translated into linguistic form. This stage covers lexicalization (selecting the appropriate word) and syntactic planning (putting the words in the right order and adding grammatical elements). The last stage is articulation in which the speakers plan the motor movements and then transform the phonetic plan into overt speech.
3. Methods

In this study, the participants were 24 Indonesian children aged 4-9 years old (4 children in each age). Recording was done on the children’s conversations with the family members using Indonesian within 5-10 minutes by using audio-visual recordings. Three kinds of transcription were done in this research. The phonetic transcription was done only to the identified SOT type no.1 (feature perseveration). The phonological or phonemic transcription was done to the four identified SOT types: type no.2 (phoneme anticipation), no.3 (phoneme perseveration), no.4 (phoneme exchange), and no.6 (phoneme deletion). The orthographical transcription were for the six identified SOT types: type no.5 (affix deletion), no.7 (word blend), no.8 (word exchange), no.9 (morpheme exchange), no.10 (word substitution), and no.11 (phrase blend).

The analysis was done by identifying and classifying the types of SOT, all self-repairs done by the children, the most frequent type, and the units which were involved in each SOT. The occurrence of SOT were categorized based on Harley (2001) as follows:

1. **Feature Perseveration** (when the final sound of a word is replaced by another sound which has the same place and manner articulation).
   
   Utterance: Turn the knob 
   
   Target: Turn the knob

2. **Phoneme Anticipation** (when the following phoneme of a word shows up too soon in a possibility to replace the unit that should have appeared later on).

   Utterance: The *M*irst of May 
   
   Target: The *F*irst of May

3. **Phoneme Perseveration** (when the phoneme that has already spoken in the previous word reoccurs again and replaces the intended phoneme).

   Utterances: God rest *r*ery gentlemen 
   
   Target: God rest *y*ery gentlemen

4. **Phoneme Exchange** (when the exchanging place of two phonemes happens).

   Utterance: Do you *r*eally bad? 
   
   Target: Do you *f*eel really bad?

5. **Affix Deletion** (when an affix, can be prefix or suffix of a word is deleted or omitted).

   Utterance: The chimney catch fire 
   
   Target: The chimney catches fires

6. **Phoneme Deletion** (when one or more phonemes are deleted).

   Utterance: Background lighting 
   
   Target: Background lighting

7. **Word Blend** (when the speaker combines some elements of two different words which form a new word).

   Utterances: The *chung* of today 
   
   Target: The *y*oung *ch*ildren of today

8. **Word Exchange** (when two words exchange the places beyond the right order).

   Utterance: Guess whose mind comes to name? 
   
   Target: Guess whose name comes to mind?

9. **Morpheme Exchange** (when the exchanging two different morphemes occurs).

   Utterance: I randomed *s*mpley 
   
   Target: I sampled *s*momendy

10. **Word Substitution** (when the intended words are substituted with the other word).

    Utterance: Get me a *f*ork! 
    
    Target: Get me a *s*poon!

11. **Phrase Blend** (when two different phrases are combined into a sentence).

    Utterance: Miss you a very much 
    
    Target: Miss you very much + a great deal

4. Results

   The results show that the SOT occurred and can be classified into 6 types out of 11 types of SOT based on Harley (2001). Those types are phoneme anticipation, phoneme perseveration, phoneme exchange, affix deletion, phoneme deletion, and word substitution. Meanwhile, the SOT types of feature perseveration, word exchange, morpheme exchange, word blend, and phrase blend did not occur at all. Besides, some children realized that they made errors and some did not. Some children who realized their slips made self-repairs.

Example 1 (Phoneme Anticipation)

This type occurred when the child was telling her experience in Telogo Sewu. However, she was immediately aware of her slip and directly revised it into the word *lomba.*
Example 2 (Phoneme Perseveration)
This type produced when the child was telling her mother about with whom she has made a sand castle. However, she was unconscious of her slip, so she did not revise it.

Data number F.5.7(E1.41)
Utterance : Nayla sama /S/alah, itu tok.
Target : Nayla sama /F/alah, itu tok.

Example 3 (Affix Deletion)
This type happened when the child was telling about her writing ability. However, the child did not realize her slip, then she did not revise it.

Data number F.6.11(E2.41)
Utterance : Oh bisa, tapi tambah-tambah(%).
Target : Oh bisa, tapi tambah-tambahan.

Example 4 (Phoneme Exchange)
This type happened when the child intended to say the zoo’s name which locates in Yogyakarta, namely Gembira Loka. The child did not realize that she made an error while producing the word Gembira Loka.

Data number F.5.8(E2.40)
Utterance : Taman Pintar sama Gembil/a /r/oka
Target : Taman Pintar sama Gembir/a /l/oka

Example 5 (Phoneme Deletion)
This slip occurred when the child was telling her mother about her friend. However, the child did not realize the error, so she continued speaking instead of correcting the error.

Data number F.1.8(E1.74)
Utterance : Nggak sengaja pas itu /Ø/aktu main bola.
Target : Nggak sengaja pas itu /w/aktu main bola.

Example 6 (Word Substitution)
This slip was produced when the child was telling his mother about his favorite sports. The child realized his slip, then he made repair on it.

Data number M.1.9(E1.60)
Utterance : Voli sama bola tangkis- bulu tangkis
Target : Voli sama bulu tangkis

Table 1 show that there are totally 87 SOT that can be classified into 6 types out of 11 types of SOT based on Harley (2001). At age 4, there are 2 types of SOT produced by the children (phoneme deletion and word substitution), 4 types at age 5 (phoneme anticipation, phoneme perseveration, phoneme deletion, and word substitution), 5 types at age 6 (phoneme anticipation, phoneme perseveration, affix deletion, phoneme deletion, and word substitution), 2 types at age 7 (phoneme deletion and word substitution), 5 types at age 8 (phoneme anticipation, phoneme exchange, affix deletion, phoneme deletion, and word substitution), and 3 types at age 9 (phoneme anticipation, phoneme deletion, and word substitution). To sum up, there are 6 types out of 11 types of SOT produced by children at all ages, namely phoneme anticipation, phoneme perseveration, phoneme exchange, affix deletion, phoneme deletion, and word substitution.
Table 1: Frequency (in percentage) of SOT type produced by Children aged 4-9 years old

<table>
<thead>
<tr>
<th>No</th>
<th>Types of SOT</th>
<th>Age (N=24)</th>
<th>4 %</th>
<th>5 %</th>
<th>6 %</th>
<th>7 %</th>
<th>8 %</th>
<th>9 %</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feature Perseveration</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Phoneme Anticipation</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>31.2</td>
<td>2</td>
<td>11</td>
<td>0</td>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td>3</td>
<td>Phoneme Perseveration</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>12.6</td>
<td>3</td>
<td>16.7</td>
<td>0</td>
<td>0</td>
<td>5.8</td>
</tr>
<tr>
<td>4</td>
<td>Phoneme Exchange</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td>5</td>
<td>Affix Deletion</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5.6</td>
<td>0</td>
<td>0</td>
<td>1.2</td>
</tr>
<tr>
<td>6</td>
<td>Phoneme Deletion</td>
<td>0</td>
<td>0</td>
<td>46.2</td>
<td>5</td>
<td>37.5</td>
<td>3</td>
<td>10</td>
<td>3</td>
<td>10.5</td>
</tr>
<tr>
<td>7</td>
<td>Word Blend</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Word Exchange</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Morpheme Exchange</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Word Substitution</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Phrase Blend</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
<td>100</td>
<td>16</td>
<td>100</td>
<td>18</td>
<td>100</td>
<td>8</td>
<td>100</td>
<td>86</td>
</tr>
</tbody>
</table>

Meanwhile, the word substitution is the most frequent type of slip of the tongue produced by the children (44.2%). That happened at age 4,6,7,8 and 9, while the most frequent types of SOT at age 5 are both phoneme anticipation and phoneme deletion.

5. Discussion

In terms of the involved linguistic units, the SOT types that happened in this study include 3 units of linguistics, that is, phoneme (types of phoneme anticipation, phoneme perseveration, phoneme exchange, and phoneme deletion), morpheme (type of affix deletion), and word (type of word substitution). Interestingly, the occurrence of each units shows that SOT mostly happened in the unit of phoneme, namely 46 times (9 occurrences of phoneme anticipation, 5 of phoneme perseveration, 1 of phoneme exchange, and31 of phoneme deletion). A phoneme is represented by an individual segment. Then, based on the data, the SOT in this study mostly relate to the individual segment. It means that in speech production, the individual segments are the most important units (Boomer & Laver, 1968; Fromkin, 1971; Shattuck-Hufnagel, 1982; Dell, 1986, 1988.in Poulisse, 1999). In this case, Fromkin (1971) concluded that the individual segments are discrete units at some stage of the speech production process.

In terms of error mechanism, the SOT types that occur (phoneme anticipation, phoneme perseveration, phoneme exchange, affix deletion, phoneme deletion, and word substitution) include the mechanisms of anticipation, perseveration, exchange, deletion, substitution and exclude the mechanism of blend. Among those error mechanisms, it is noticeable that substitution and deletion are very frequent. It is because they are non-contextually determined errors. Meanwhile, anticipation, perseveration, and exchange is infrequent because they are contextually determined errors or they are caused by the linguistic context in which the errors occur.

As the most frequent type of SOT, the word substitution happened noticeably with certain pattern. First, the word substitution happened in the content word or open-class word, it did not occur in function word or closed-class word.Second, the unintended word which substituted the intended word always has similar word class with the intended word, for example a noun lebah meaning ‘bee' was substituted by another noun kupu-kupu meaning ‘butterfly’ (F.6.12(E3.18)).Third, the substituted words are associated with the uttered words, by
form and by meaning (Field, 2005). Association by form happened in data number M.1.9 (E1.60), in which the word bulu in bulu-tangkis was substituted with the word bola becoming bola-tangkis. Both the words have almost similar sounds. Meanwhile, association by meaning happened in data number M.6.9 (E1.24) in which the intended word dikurangi meaning ‘subtracted’ was substituted by another word ditambah meaning ‘added’. Paying attention to the meaning relation of the unintended words and the intended words, the unintended words are the antonym of the intended words.

That interpretation leads to the information of the models of syntactic planning and lexical retrieval in speech production (Harley, 2001). Harley suggested an important prediction that parts of a sentence that interact to produce speech error must be element of the same processing vocabulary and constrained by syntactic factors, while the sound errors which swap with words regardless of their syntactic class are constrained by distance.

Furthermore, some children followed the SOTs with corrections. Such self-repair might be caused by their effort to keep the accuracy, completeness and the coherence of what has been already said and what will be said next. As stated by Jaeger (2005), people realizing their slips will directly correct their slips.

6. Conclusion

SOTs also happen to any children at any age in any situation in their first language. Children realizing their slips will most possibly make self-repair. The most frequent type of SOT is word substitution which happens in content word or open-class word and involves the non-contextually determined error mechanism and phonologically and semantically related words. The involved linguistic unit is mostly the individual segment becoming an evidence that it is the discrete unit at some stage of the speech production process.

References