# THE USE OF ADDITION IN SIGN LANGUAGE TRANSLITERATION

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## Abstract

This study analyzed the types of information that are added to the target messages of sign language interpreters working from a spoken English source message. Within the field of sign language interpreting the process of working between a spoken English source message and a signed English target message is referred to as transliteration. The participants were 15 master interpreters who were videotaped transliterating the same 18-minute lecture. The last 5 minutes and 58 seconds were transcribed and coded for the use of additions.

This study showed that the transliteration process is not a verbatim re-coding of the source message. Interpreters frequently added information to the signed message making it more comprehensible to the deaf consumer.

The types of information added fell into five categories; cohesion, clarification, modality adaptation, repetition, and reduplication. Within the cohesion, clarification, and modality adaptation categories were several different forms of addition that satisfied several different functions. The categories of repetition and reduplication had only one form and function.

The current definition of transliteration published by the Registry of Interpreters for the Deaf is "the process of changing an English text into Manually Coded English (or vice versa)" (Frishberg, 1986 p. 19). Manually Coded English has, in the past been used as an umbrella term to include the forms of signed English from the artificial sign systems to Pidgin Sign English. However, when used during transliteration, each type of signed English creates a very different target message. Herein lies the source of a continual debate within the profession. For some, transliteration is a word-for-word re-coding of the spoken English (i.e. the use of the artificial sign systems or signed English). Others perceive transliteration as the use of PSE or as Winston (1989) states, "a complex combination of features from ASL and from English" (p. 148). The ambiguous definition of the actual form of transliteration has led to inconsistencies in the education and certification of interpreters. In addition, the perception that transliteration is simply the robotic task of assigning a sign to each word has led to a status difference between interpretation and transliteration. For some, the process of interpretation between ASL and English is perceived as a more complex task, which is therefore more highly valued. For many working interpreters this ambiguous definition has evolved into viewing transliteration as having the potential to yield two completely separate forms. This commonly held view was made apparent during the collection of data for this study. Although the interpreters used in this study were videotaped individually, the following conversation occurred with almost all of them prior to the videotaping: Siple:

-Do you have any questions before we start? Participant: Yes, it says on the consent form that you want me to transliterate. What do you mean by transliteration?

Siple: What does transliteration mean to you

Participant: Well, there's word-for-word, and then there's what I consider to be a more effective form.

Siple: I want to you to transliterate the audio tape so that "name of deaf person", "name of deaf person" and "name of deaf person" would fully understand the message.

Participant: Then I'll do what I think is effective.

The relative lack of research on transliteration has allowed this ambiguous definition and perception to persist. It is only though an in-depth analysis of the actual forms generated by interpreters when transliterating that the profession will be able to better define the task. A clearer and more accurate definition will improve the education of student interpreters and will enhance the certification process of professional interpreters.

To date, Winston (1989) has been the only researcher who has presented a systematic analysis of what is happening during transliteration. In her analysis of one interpreter's transliteration, Winston (1989) found that the interpreter used at least five different strategies (i.e. addition, omission, substitution, rephrasing, sign choice).

As Winston (1989) states, "since the goal [of transliteration] is to provide a visual target form that not only resembles to some extent

spoken English structures but at the same time is also comprehensible, it is appropriate to use forms that are specific to visual languages such as ASL... [and] features of English" (p. 150).

One of the strategies identified by Winston (1989) and the focus of this study is the phenomenon of addition. For the purpose of this study, an addition is defined as information found in the target message not directly found in the source message. The additions noted in the Winston (1989): study came both from ASL and English. She concluded, "it is apparent that at least some forms of

transliteration include not only English like signing of the source message but also many features of ASL. This type of transliteration requires skills in both ASL and English in order to achieve and blend pragmatic and linguistic goals in the production of a target message" (Winston, 1989: 163).

The goal of the present study is to further investigate Winston's (1989) findings regarding the use of additions during transliteration. As previously discussed, the language of transliteration is English; however, a transliterated target message cannot be successfully conveyed without the use of ASL features. This need for the inclusion of ASL features is not because English is inadequate but rather because ASL is more efficient in meeting the visual needs of the deaf consumer.

## Method

Participants were individually scheduled to be videotaped in a

television studio. Upon arrival, each participant read and signed an informed consent form. Participants were then asked to imagine that they were transliterating this lecture to three named deaf individuals, all of whom were known to the participants. The three deaf individuals all possessed Ph.D.'s, were professionals in the academic environment, had strong English language skills (reading, writing, and sign), and preferred a more English-like transliteration to an ASL interpretation when using an interpreter.

Each videotape was analyzed for instances of additions. The analysis of the 6 minute segment yielded 619 additions by the 15 interpreters. Similar additions were grouped. From this grouping, five categories of additions emerged.

Addition categories. All additions were assigned to one of five categories:

Cohesion - An addition that serves to link different parts of a discourse (e.g., conjunctions, hand indexing, spatial referencing, or spatial indexing). Clarification - An addition that serves to make the source message clear and free of ambiguity (e.g., states the implied, provides additional semantic information, or explicitly links a particular English lexical item and a sign).

Modality Adaptation - An addition that visually communicates an auditory aspect of the message (e.g., intonation, stress, etc.).

Repetition - An addition that provides emphasis by repeating a key word or phrase.

**Reduplication** - An addition that involves the re-forming of a sign for the purpose of pluralization.

Most of the categories above contained several different forms that functioned in slightly different ways to satisfied the broader category. The form refers to the actual signs gesture, fingerspelling, or movement that was added by the interpreter. The function refers to the role that the specific form provided to the meaning of the message.

### Results

The data were organized into the five addition categories described above: cohesion, clarification, modality adaptation, repetition, or reduplication. The relative frequencies of each are shown in Table 1.

Table 1
Mean Frequencies of the Five Addition Types

| Addition Type | Mean | SD | Median | Range |
|---|---|---|---|---|
| Cohesion | 19.40 | 6.33 | 21 | 9 - 31 |
| Clarification | 15.00 | 5.81 | 13 | 6 - 24 |
| Modality Adaptation | 5.60 | 4.15 | 4 | 1-16 |
| Repetition | 1.00 | 0.92 | 1 | 0 - 3 |
| Reduplication | 0.67 | 0.31 | 1 | 0-2 |

Each category of addition contained several different types of additions. Only the first three categories (i.e. cohesion, clarification, and modality adaptation) will be discussed due to the infrequent occurrence of examples in repetition

and reduplication

Cohesion. The cohesion category contained additions that helped the signed text visually hang together. One of the most common cohesive devices used was spatial referencing or the physical shift to the right or left to show that two concepts were related. See Appendix for a discussion of the transcription system used in the examples from the data.

Example 1

| line 38: | and there are two types of predictions you can make |

| line 39: | predictions of content |

| LINE 39: | | PREDICTIONS OF | CONTENT |
| --- | --- | --- | --- |
| | (SHIFT LEFT) | PREDICT | C-O-N-T-E-N-T |

| line 40: | and predictions of organization |

| LINE 40: | AND | | PREDICTIONS OF |
| --- | --- | --- | --- |
| | AND | (SHIFT RIGHT) | PREDICT |

ORGANIZATION
PLAN

| line 41: | for example in terms of content |

| LINE 41: | FOR EXAMPLE | | IN TERMS OF |
| --- | --- | --- | --- |
| | FOR EXAMPLE | (SHIFT LEFT) | RELATE |

CONTENT
C-O-N-T-E-N-T

Clarification. Interpreters frequently made additions that served to disambiguate concepts; that is the additions provided clarification. This category, along with modality adaptations (discussed below), differ from the other categories in that the forms and functions of clarification result from the transliteration process. As will be seen, the forms and functions of

clarification are not necessarily features found in signed English, spoken English or ASL per se, but rather they result from the process of going between spoken English and sign.

The source message often contained specific words and/or phrases that were important to preserve in the target message. These key terms typically designated a category and often belonged to the technical vocabulary of the topic. For example, "to predict" was a key term found in line 3.

Example 2

line 1: ok the third thing a listener must do

line 2: and this to me is the most important thing of all

line 3: and that's <u>to predict</u> as you listen

In the subsequent lines of the text, the terms "to predict" and "prediction" were repeatedly emphasized. When transliterating these lines, interpreters frequently presented the term twice or provided a *nonce link*; first by providing the sign PREDICT and then by fingerspelling P-R-E-D-I-CT. Here the fingerspelled P-R-E-D-I-C-T would constitute the addition because it follows the sign PREDICT. In other instances the sign is the addition because it is preceded by the fingerspelling.

Example 3

line 3: and that's to predict as you listen

| LINE 3: | YOU | HAVE TO | PREDICT |
|---------|------|---------|---------------|
| YOU | MUST | PREDICT | (P-R-E-D-I-C-T) |
| | AS | YOU | LISTEN |
| | DURING | YOU | LISTEN |

The sign PREDICT, although typically glossed to mean, "predict", can also mean "intuition", "prophecy", "fortune telling", "premonition", etc. The sign gives the deaf consumer the meaning in sign, (i.e., to see into the future). The fingerspelling followed by the sign, linked it with the specific English term "predict". The nonce link combined a sign and fingerspelling which acted as a semantic bridge, linking a particular concept in sign with a particular English word for the purpose of the present text, (i.e., for *the nonce*).

Clarification additions also functioned to narrow the semantic range. These additions were sign synonyms or more specifically signs that helped to clarify the meaning of a phrase or word. Several of the transliteration segments showed additions that functioned to narrow the semantic range of concepts that were first presented in a more English-like fashion.

Example 4

line 21: so predicting is important to help you overcome outside noise

line 22: and inside noise

LINE 21: <u>SO    PREDICTING    IS        IMPORTANT  TO HELP YOU</u>
         S-O         PREDICT TRUE         IMPORTANT     HELP-YOU

<u>OVERCOME   OUTSIDE        NOISE</u>
         BEAT   OUTSIDE        NOISE   (BOTHER)

LINE 22: <u>AND   INSIDE   NOISE</u>
         AND   INSIDE   NOISE   (BOTHER)

In this instance the term "noise" was used in a non-traditional manner in that it does not only mean an auditory interference but was used to mean

any activity that interfered with the listening process. However, the sign NOISE means only an auditory interference. It does not generally carry the broader definition. Nine interpreters added the sign BOTHER or a similar sign to further define the signed concept NOISE. This addition served to clarify the meaning of "noise" by narrowing the semantic choices.

Modality adaptations. The third category, modality adaptations, are a unique type of addition for they emerged as a result of the modality differences inherent in speaking versus signing. An addition was categorized a modality adaptation when it visually communicated an auditory, paralinguistic aspect of the message, such as a meaningful pause or intonation contour. The addition was also categorized a modality adaptation when it provided cultural relevancy (e.g. changed an auditory based concept into a visually based sign.

Within this text, interpreters used two different additions to elicit a response from the deaf consumer. Most of the interpreters utilized either the sign BLANK or the gesture OPEN HANDS to designate that the speaker intended the listener to "fill-in-the-blank" at the end of line 44 in example 5.

At this point in the lecture the speaker is demonstrating how we can predict based on content.

Example 5

line 43:  if you hear the words because he loved to cook

line 44:  his favorite room was the (long pause)

LINE 44:  <u>HIS   FAVORITE</u>          <u>ROOM</u>      <u>W AS</u>
          HIS   FAVORITE          ROOM      W-A-S

          <u>THE</u>
          T-H-E (BLANK) / (OPEN HANDS)

Another type of modality adaptation was one that provided cultural relevancy. Given the topic of the lecture "Listening for Comprehension" it is not surprising that the verb "listen" was the prompt for many of the visual additions.

Example 6

     line 3:   and that is to predict as you listen

     LINE 3:  <u>AND</u>    <u>THAT'S TO PREDICT</u>    <u>AS</u>    <u>YOU</u>    <u>LISTEN</u>
              AND    THAT    PREDICT DURING YOU    HEAR

              <u>(PAY ATTENTION)</u>

The sign MAR is either produced by cupping the hand around the ear or by pointing to the ear. The sign PAY ATTENTION is a visually based sign in that both hands are placed at either side of the head at the sight line forming blinders.

## Discussion

The main findings of this study showed that the transliterated target messages produced by the interpreters frequently contained information not directly found in the source message. The interpreters utilized the strategy of addition to provide supplemental information in recognition that a verbatim message would be incomplete. This study identified that the additions made by the interpreters fell into five major categories; cohesion, clarification,

modality adaptation, repetition, and reduplication. Each category contained several different forms that functioned to enhance the message in a specific way.

Interpreters used the strategy of addition when constructing the target message; that is, they included information in the target message not directly found in the source message. The types of information added functioned in a variety of ways. However, the functions alway; served to provide supplemental information that served to enhance the overall meaning of the message. These additions helped to make the source message, (a spoken linear message), a more comprehensible visual and spatial target message.

This research has provided a deeper understanding as to the nature of transliteration. Its greatest contribution is the recognition that transliteration is a complex and intricate process requiring an in-depth knowledge of American Sign Language and English. While this research has provided much insight into the process of transliteration it has also left many questions unanswered. It is my hope that the study reported will inspire others to pursue further research into the process of sign language transliteration.

## Appendix

### Transcription System

A transcription system was developed for the audio taped lecture and the videotaped transliterations. The transcription system used for the audio taped lecture involved citing the line number of the thought unit and then showing the actual English words of the source message. To differentiate the source and target messages, the source message was transcribed using all lower case letters. For example, the first three lines of the segment of the lecture used in the analysis were transcribed as follows;

line 1: ok the third thing that a listener needs to do

line 2: and this is to me the most important thing of all

line 3: and that's to predict as you listen

The transcription system used for the signed transliterations involved a two-tier system where the upper tier (commonly called the non-manual tier) was used to show what the interpreter mouthed and the lower tier to show what the interpreter signed.

The upper tier was transcribed by speechreading the interpreter and noting the words she mouthed. The transcriptions of the transliterations positioned the mouthed word (upper tier) directly over the corresponding sign(s) (lower tier). Sometimes, the interpreter did not mouth any words while signing. These instances are represented by signs appearing in the lower tier and no corresponding mouthed words in the upper tier.

The transcription of signs for the lower tier is a very difficult process for it involves reducing a three-dimensional language into a two-dimensional description. There have been several notation systems proposed (e.g., Stokoe, Casterline, and Croneberg, 1965; Newkirk, 1975; Sutton, 1976), however, these systems are detailed linguistic descriptions and go beyond the goals of this study. In an attempt to find a more straightforward approach, the signs used by the interpreters in this study were transcribed using the gloss of the signs (i.e., the common name used when describing the sign). A similar system has been used by Mallery-Ruganis and Fischer (1991) in the transcription of simultaneous communication (i.e., signing and speaking at the same time).

When an addition occurred it was placed in parenthesis and underlined. Frequently, an addition on the lower tier also had an addition on the upper tier in that the interpreter mouthed the corresponding English word. The purpose of this study was to analyze the signed additions of interpreters, therefore, any word that occurred on the upper tier was not counted as a separate addition. Words labeled 1 and 2 above are coded additions.

A frequently occurring addition was not a sign per se but a linguistically significant movement. This movement was transcribed "SHIFT RIGHT" and "SHIFT LEFT" and relates to the interpreter's body slightly moving to the right or left. (This movement is later discussed as spatial

referencing). Related to this movement as another gesture-like sign transcribed "POINT RIGHT" and "POINT LEFT".

Fingerspelling, the representation of letters on the hand, was found to occur in the general transliteration of the text and as an addition to the text. A fingerspelled word was transcribed letter by letter, separated with a hyphen. When a fingerspelled word was an addition, it was placed in parenthesis and underlined.

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