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USING COMPRESSION STRATEGY IN SIGN LANGUAGE TRANSLATION

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Abstract:

This article examines compression as a meaning-oriented strategy in sign language translation and interpreting. Compression is understood not as arbitrary shortening, but as the selective reformulation of a source message to preserve its essential propositional content, pragmatic force, and communicative purpose within the visual-spatial and temporal conditions of signed communication. Drawing on translation and interpreting studies and on research into sign language interpreting strategies, the article uses a qualitative, descriptive and example-based approach. It distinguishes legitimate compression from harmful omission and discusses summarising, generalisation, lexical substitution, restructuring, and the reduction of redundant material. Illustrative examples show how a lengthy spoken message may be rendered more economically in a target sign language while retaining the central claim, relevant participants, causal relations, and necessary qualifications. The article argues that successful compression depends on discourse analysis, audience needs, linguistic competence, and continuous monitoring of comprehension. It concludes that compression should be evaluated by communicative adequacy rather than by the number of words or signs produced. The proposed analytical framework can support interpreter education and the assessment of sign language interpreting performance.

Keywords: sign language translation, sign language interpreting, compression, omission, summarising, discourse, interpreting strategies.

Introduction. Sign language translation is a complex communicative activity in which meaning is transferred between languages that may differ in modality, grammar, discourse organisation, and cultural conventions. In many interpreting settings, a sign language interpreter works under strict time

constraints while attending to a speaker, processing information, monitoring the audience, and producing a coherent signed or spoken message. The task is therefore not a mechanical replacement of words with signs. It requires the interpreter to identify the speaker's communicative intention and construct a target-language message that is accurate, accessible, and appropriate to the situation.

Compression is particularly relevant when the source message contains repetitions, lengthy explanations, discourse markers, examples, or details that are less important to the immediate communicative purpose. In interpreting research, compression is commonly discussed alongside summarising, omission, generalisation, and reformulation. These strategies may help interpreters manage limited processing time, but they also create a risk: excessive compression can remove qualifications, causal links, participant roles, or information that is essential to the audience. The central problem is thus not whether a message should be shortened, but how it can be made more economical without distorting its meaning.

Research on sign language interpreting has identified compression and summarising among strategies used to achieve efficient expression. Kim and Hong's case study of Korean sign language interpreting, for example, classifies summarising, omission, compression, and generalisation as expression-efficiency strategies while also identifying monitoring and repair as relevant components of interpreting performance [1]. Research on interpreting between American Sign Language and English similarly documents compression as a strategy that may interact with explicitation and shifts in reference [2]. These findings suggest that compression must be studied as part of a wider set of decisions rather than as an isolated technique.

The purpose of this article is to describe the functions, forms, and limits of compression in sign language translation and to propose a practical framework for applying it responsibly. The article addresses three questions: (1) what distinguishes compression from arbitrary omission; (2) which procedures can make a target message more concise while preserving its essential meaning; and (3) what criteria can be used to assess the quality of a compressed interpretation?[3]

Materials and methods. The study adopts a qualitative, descriptive and analytical approach. Its material consists of relevant scholarly discussions of sign language interpreting strategies and a set of constructed examples designed to illustrate common compression decisions. The examples are pedagogical rather than excerpts from recorded interpreter performance; they are not presented as empirical data. The analysis compares the informational structure of a source utterance with a possible concise target rendering and identifies which elements must be retained, reformulated, or omitted.[4]

The analytical procedure has four stages. First, the source message is segmented into its central proposition, supporting details, discourse functions, and pragmatic qualifications. Second, each element is assessed for relevance to the communicative purpose and audience. Third, a concise target rendering is proposed using one or more compression procedures. Finally, the rendering is evaluated for semantic accuracy, coherence, pragmatic adequacy, and accessibility. This procedure provides a transparent basis for discussing compression while recognising that the actual form of a signed utterance depends on the target sign language, regional variation, context, and the interpreter's professional judgement.

Compression can be defined as the selective reduction or consolidation of source-message material during translation or interpreting, provided that the target message retains the information necessary for the communicative purpose. It is a functional strategy: the interpreter reorganises the message in response to time, processing, linguistic, and audience-related demands. The strategy may operate at lexical, syntactic, semantic, or discourse level. It does not imply that signed languages are inherently less expressive than spoken languages. Rather, it recognises that every language has its own resources for distributing information and that interpreters often need to reformulate a message across different linguistic systems.[5]

A distinction should be made between compression and omission. Compression combines, generalises,

or reformulates information to express the central meaning economically. Omission removes an element from the target message. Omission can be justified when the element is redundant, recoverable from context, or irrelevant to the immediate communicative goal; however, it becomes an error when it removes information that changes the speaker's claim or the audience's understanding. For example, removing repeated fillers may have little effect, whereas removing the word "not," a deadline, a condition, or a warning can reverse or seriously distort the message.

Compression is also different from summarising, although the two strategies overlap. Summarising reduces a longer stretch of discourse to its principal points, while compression may operate within a single sentence or turn. Generalisation replaces several specific items with a broader category; lexical substitution selects a shorter or more conventional expression; and syntactic restructuring changes the organisation of a message to suit the target language. In practice, interpreters may combine these procedures. A long list of minor examples, for instance, may be replaced by a category label followed by one representative example if the list itself is not essential.[6]

The visual-spatial nature of signed languages makes the analysis especially important. Sign languages use manual signs together with facial expression, gaze, body movement, and spatial organisation. These resources can convey grammatical, referential, and discourse information. A compressed rendering should therefore not be judged by counting signs alone. A target message may be concise yet still require appropriate non-manual markers or spatial references to express a contrast, a question, a condition, or a change of participant. Conversely, a longer signed sequence may be necessary where the source contains technical concepts, unfamiliar names, or culturally specific information.[7]

Compression is best understood as controlled prioritisation. The interpreter identifies the core proposition—who did what, to whom, when, under what conditions, and with what result—and distinguishes it from secondary material. The relative importance of details is context-sensitive: in a medical appointment, a dosage, allergy, or symptom may be crucial; in a public lecture, a repeated rhetorical phrase may be less important than the main argument. Ethical interpreting requires the interpreter to preserve information that materially affects the recipient's decisions or rights. When a message is unclear, clarification or repair may be preferable to guessing and compressing.[8]

The principal procedures discussed in this article are: (a) removal of redundant repetition; (b) summarising a sequence of related points; (c) generalising a non-essential list; (d) replacing a lengthy expression with a conventional target-language equivalent; (e) restructuring a complex sentence into a clearer sequence; and (f) reducing metadiscourse that does not contribute to the message's intended meaning. Each procedure requires a contextual judgement. A repetition may be stylistic emphasis rather than redundancy, and an example may be essential evidence rather than optional detail. Compression must therefore follow interpretation of the discourse, not precede it.[9]

Results and discussion: The following constructed examples demonstrate how compression may work in practice. They are schematic English source messages with descriptions of the intended target meaning, not glosses or standardised representations of any particular sign language. Actual signed forms must be selected by competent users of the relevant sign language.

Source message: "We have discussed this issue several times before, and we have talked about it again in the meetings that took place last week."

Possible compressed meaning: "We have discussed this issue repeatedly, including last week."[10]

Analysis: The source repeats the idea of prior discussion. The compressed version retains recurrence and the time reference while reducing repetition. The compression would be inappropriate if the speaker deliberately distinguished earlier discussions from last week's meetings or used repetition to express frustration. The interpreter must therefore identify whether the repetition is redundant or pragmatically meaningful.

Source message: “The project needs notebooks, pens, folders, printed forms, labels, and other basic office materials.”

Possible compressed meaning: “The project needs basic office supplies, including stationery and forms.”[11]

Analysis: A broad category replaces a list of items. The examples “stationery and forms” preserve some specificity, while the phrase “basic office supplies” conveys the general category. This strategy is suitable when the list is illustrative. It is not suitable for an inventory, procurement order, or safety procedure where each item must be identified.

Source message: “First, applicants should complete the online form. After they have completed it, they need to upload the required documents. Once the documents have been uploaded, they should submit the application before Friday.”[12]

Possible compressed meaning: “Applicants must complete the online form, upload the required documents, and submit the application before Friday.”

Analysis: The sequence is expressed as three coordinated actions. The compressed version retains the order, required documents, and deadline. It removes repeated transitional wording but does not remove procedural requirements. In sign language, sequencing can be conveyed through the organisation of the signed discourse and appropriate temporal markers in the target language.

The examples indicate that compression is a decision-making process governed by relevance and communicative risk. The interpreter must determine not only what information is repeated, but also what function that repetition serves. In spontaneous speech, repetition can signal emphasis, hesitation, repair, emotional involvement, or an attempt to ensure understanding. Treating every repeated phrase as disposable would overlook these discourse functions. Compression is most defensible when the interpreter can explain why the removed or consolidated material does not alter the speaker’s intended message.[13]

A useful way to assess compression is to apply four criteria. The first is semantic fidelity: the compressed message must retain the main proposition and any details that materially affect its truth conditions. The second is pragmatic fidelity: stance, politeness, urgency, warning, uncertainty, and contrast should remain available to the audience where they matter. The third is coherence: the target message must preserve logical and temporal relationships, including cause, condition, sequence, and contrast. [14]

Before compressing, the interpreter can ask five questions: (1) What is the central claim or instruction? (2) Which details are essential to accuracy, safety, rights, or decision-making? (3) Is the repetition genuinely redundant, or does it express emphasis or repair? (4) Can related material be combined without losing a meaningful distinction? (5) Would the intended recipient understand the compressed version without misleading inference? If uncertainty remains, preserving the information, seeking clarification when appropriate, or repairing the message is preferable to unjustified omission. This framework positions compression as a monitored professional choice.[15]

Conclusion. Compression is an important strategy in sign language translation because it can help interpreters manage time and produce a coherent target message. Its legitimacy depends on the preservation of essential meaning, pragmatic force, discourse relations, and audience access. The analysis has distinguished compression from arbitrary omission and illustrated procedures such as removing redundant repetition, generalising lists, summarising sequences, replacing lengthy expressions, and restructuring complex messages. The examples also show that modality, negation, scope, deadlines, conditions, and other consequential details must be retained.

The main practical recommendation is to assess compression by communicative adequacy rather than

by output length. Interpreter training should combine discourse analysis, contextual judgement, target-language competence, ethical awareness, and feedback from Deaf sign language users. Future empirical studies are needed to test the proposed framework across language pairs and interpreting settings. When applied carefully and monitored continuously, compression can support concise, accurate, and accessible communication without sacrificing the speaker's intended meaning.

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