Reverse Engineering
A fresh perspective on defining translation and remodeling the process

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ABSTRACT: Ever since the establishment of Translation Studies as an independent academic discipline in the 1970s, there has been an ongoing debate about the relationship between theory and practice, to which this paper aims to make a modest practical contribution in the form of a novel procedure for textual analysis and synthesis. Intellectual advances are often triggered by flashes of inspiration which suggest analogies that facilitate shifts in perception and focus that, in turn, lead to changes in understanding. What is offered here may not be a flash of inspiration but is, at least, a new analogy for the definition of translation: Translation is a kind of engineering, specifically reverse engineering (RE). Through the lens of RE, translation redefines itself as a mental-physical, two-phase, input-output process in which texts are deconstructed (read and understood) and reconstructed (written) as new texts that resemble the originals but are not copies of them. This suggests a model of translating that recognizes the crucial role of efficient reading in the process of translating and is realized in the form of a straight-forward, simple but revealing Procedure: a mechanism for expanding the individual translator's competence as a reader and as a writer and for sharing this increased expertise with others. The approach outlined here, Translation as Reverse Engineering (TARE), would not exist but for insights from others, in particular a specific

proposal from Ali Darwish (2008) and, crucially, from the broad sweep of Hallidayan Systemic Functional Linguistics (SFL), with its view of language as purposeful social action (1978) and the more recent translation-oriented work of Munday et al. (2008, 2021). The Procedure is described in detail and is demonstrated in action in the deconstruction and potential reconstruction of three short texts. The value of the approach may lie in the way it facilitates the work of the translator and, by becoming part of his or her toolkit (to borrow Chesterman & Wagner's 2002 term), perhaps, contributing to bridging the current gap between theory and practice.

Keywords: reading, translation, reverse engineering, meaning, memory

논문초록: 1970년대에 번역학이 하나의 독립된 학문 분야로 거듭나면서부터 이론과 실무의 관계에 대한 담론이 지속되어왔다. 본 소고는 텍스트 분석과 통합을 위한 새로운 과정을 제시함으로써 이러한 담론에 기여하고자 한다. 일반적으로 지식의 발전은 학문에 대한 관점과 초점의 전환을 유도하는 영감으로 촉발되며, 이를 통해 학문에 대한 이해 방식을 변화하게 한다. 본고는 이러한 영감의 결과물이라 할 것은 아니지만, 적어도 번역을 정의해볼 수 있는 새로운 틀을 제시하고자 한다. 즉 번역은 일종의 설계 작업, 보다 정확히는 역설계(reverse engineering) 작업이라 할 수 있다. 역설계의 관점에서 보면 번역은 입력-출력 절차의 두단계로 구성된 작업으로 재정의되며, 이 과정에서 출발텍스트는 분해(읽기, 독해) 과정을 거쳐 재구성(쓰기)된다. 그 결과로 새로이 생성되는 번역텍스트는 출발텍스트와 유사하나 그 정확한 복사본이라 할 수는 없다. 이런 관점의 전환을 통해 제시되는 번역 모델은 번역작업에 있어 효율적 읽기 능력의 중요성을 강조하는데, 이를 통해 직관적이며 간단하지만 동시에 많은 혜안을 얻을 수 있는 접근방식, 즉 개별 번역사가 독해를 하고 글을 쓰는 능력을 키울 뿐 아니라 이렇게 키운 능력을 타인과 공유하는 기제를 제시한다. 본고에서 제시하는 역설계 작업으로서의 통역에 대한 접근(TARE)방식은 이전 연구가 없었다면 개발하지 못했을 것인데, 특히 알리 다르위시(2008)가 제안한 내용과 특히 언어행위를 의도적 사회적 행위로 보는 할리데이(1978)의 체계기능언어학(SFL)의 중요한 기반이 되었다. 본고에서는 이 접근 방식에 대해 상세 기술 후 3개의 짧은 예시를 제시한다. 번역사의 작업에 도움을 주고 번역사가 가용할 수 있는 도구(체스터만과 와그너의 2002년 연구에서 표현을 빌리자면)로 기능할 수 있다는 점에서 해당 접근방식의 가치를 찾을 수 있을 것이다.

핵심어: 번역, 역설계, 의미, 메모리, 단계

1. Introduction

The focus of this paper is on the application of the principles of Reverse Engineering to the modelling of the translation process—Translation as Reverse Engineering (TARE)—with a view to providing translators with a simple but revealing procedure based on a reformulation of the well-established technique of "close reading". It is hoped that this will help them to broaden and deepen their understanding of the structure and meanings of source texts, making it possible for them to bring their semi-automatic skills to a level of awareness that enables them to share with others what they have discovered about the text, through discussion and/or translation and apply this knowledge to the creation of more satisfactory translations.

The 20th century saw the steady development of the study of language from de Saussure (1916) and Ogden and Richards (1923) up to Chomsky (1957), Hockett (1958), and Holmes (1972/2000) with the establishment of Translation as an independent academic field of study. From then on, changes in perception led to competing approaches to the definition and description of translation including Halliday (1978) and Reiss and Vermeer (1984), both of whom proposed a re-orientation away from the purely linguistic focus on the text towards the *context* and a view of translation as a social, cultural and institutional phenomenon. A second shift in the early 2000s, Mossop et al. (2005) proposed the reintegration of text ("source" and "target") in an approach which combined linguistics and sociolinguistics (in the broadest sense).

As a result, the present situation is one in which there are many competing approaches to the definition of translation, particularly in, the last fifty years[1]. However, for us, the idea of TARE, inspired by Halliday's remark 60 years ago, sits most comfortably within his theory of language as a communicative event—a series of purposeful communicative acts—set in a socio-cultural context.

> It might be of interest to set up a linguistic model of the translation process, starting not from any preconceived notions from outside the field of language study, but on the basis of linguistic concepts such as are relevant

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[1] There are many useful articles, books and encyclopedias that cover the field including, Holmes (1972/2000), Chesterman and Wagner (2002), Mossop et al. (2005), Snell-Hornby (2006), and Munday et al. (2022).

to the description of languages as modes of activity in their own right (McIntosh & Halliday, 1966, p. 137).

This paper proposes a change in focus which, inevitably, will have ramifications not only for the practice of translating and for pedagogy but, potentially, also for the academic investigation of translation in general and applying it to the modelling of the translation process.

2. Reverse Engineering and Translation

The term "Reverse Engineering" (RE) has commercial and military origins where a piece of equipment created by a competitor would be taken apart in order solely to identify and understand its components and their interrelationships rather than create a different version of it. The current definition of RE however, goes beyond this to include the reconstruction of the device:

> Reverse engineering is the process of taking something apart and analyzing its workings in detail, usually with the intention to construct a new device that is similar in design and does the same thing without actually copying anything from the original (Quizlet, 2023).

An *engineer* imagines a product (creates a mental model of it) and combines physical elements together to create it. A *reverse engineer* follows the same process but in reverse, taking an existing product to pieces and reconstructing it in a way most suited to its new intended use. Similarly, a *writer* imagines a text (creates a mental model of it: a virtual text) and combines elements derived from one or more sign systems together to create an actual manifestation of it. A t*ranslator* reverse engineers a translation by deconstructing an actual text into a mental model of it (a virtual text) and producing a reconstruction (an actual text) which is similar to but not identical to the original (see Darwish, 2008, pp. 162-164).

2.1 The Characteristics of Translation

Translation is a special case of human information processing which takes place in long- and short-term memory. The process is nonlinear (the order is in no sense predetermined), cascaded (a stage need not be completed before moving on to the next), iterative (providing feedback as new information triggers off ideas that lead to more ideas) and interactive (the process moves back and forth from level to level) and proceeds in an integrated bottom up-top down manner which makes backtracking, revision, and cancellation of previous decisions the norm rather than the exception until the richest picture possible is arrived at (see Bell, 1991, pp. 42-43).

"Normal" communication typically involves two or more participants—"sender" and "receiver(s)"—who know (or are getting to know) each other, are located in the same time and space (a shared situation) in which they exchange messages (texts, written, spoken, signed) in a shared communication system. Whereas, translation is, in contrast, "abnormal", since (except in the case of most interpreting) there is a minimum of three participants—the writer of the source text, the translator (who is sequentially a receiver of the source text, and a sender of the target) and the reader of the target text who are unlikely to know each other and do not interact face to face or share the same situation or language (Bell, 1991, pp. 17-19).

While "normal" communication begins with the situation, the *context* of the communicative event in which the text is shared, translation starts with the text and requires the *reconstruction* of the context.

Even if the communicators speak the "same language" the texts they are attempting to share differ from person to person. Texts consist of words, and the meanings of the texts can only be discovered *through* words rather than *in* them but words have no inherent meaning. They are just labels that we use to create mental models that "make sense" of our perceptions, shape our "understanding" of the world and guide our behavior. Since these models are personal, they filter our perceptions in accord with our individual and cultural preconceptions and expectations, so that the meaning of any perception and the words that go with it are necessarily fuzzy.

What, for example, do the words "Lee Ho" mean? Nothing in themselves but if we ask, "what do the words 'Lee Ho' mean to *you*?" we are asking what you see when you hear these words? A Chinese, Korean or Vietnamese name? An English placename? An order issued by the helmsman of a sailing vessel?

any or all of these depending on your own, unique, life experiences.

Given this, how can any society operate without agreement? at least tacit, amongst its members to co-operate in the sharing of information. The sender has a responsibility for the difficult task of attempting to ensure that the messages (s)he sends are sufficiently informative, true, relevant and clear to satisfy the receiver's needs (see the Co-operative Principle and its four component maxims in the table below: Grice, 1975, pp. 41-58). The receiver also has a reciprocal responsibility to the sender to co-operate in making the exchange a success by making the effort to understand what is being said.

How is this relevant to the topic of this paper: translation as reverse engineering? We would argue that, since meaning in the mind differs from person to person, sharing is only possible through negotiation to reach an agreed understanding. What is proposed here is a way of organizing negotiation of this kind to reduce the fuzziness. If translation consists of reading, understanding and writing texts, it follows that a successful negotiation depends on efficient reading and writing. This paper offers an approach to facilitate such negotiation through close reading and applying the knowledge gained to the production of other texts in another language. Any method for improving the bilingual reading and writing competence of the translator must be beneficial not only to the *practice of translating* but also to the *study of translation*.

Perhaps the most compelling justification for looking at translation through the lens of reverse engineering is what de Beaugrande (1978) said about the importance of competent reading in relation to translation:

> *Only if the reading process is consistently pursued to the point where the interpretation is maximally dominated by text-supplied information can a truly objective translation be produced*, that is, a translation which validly represents the perceptual potential of the original [original emphasis] (p. 88).

In other words, incompetent reading leads to inadequate or even inaccurate interpretation of the source text that makes it unsuitable as the basis for the writing of an adequate translation.

3. Theoretical Underpinning of TARE

Up to the final years of the 20th century, a contextless definition such as Dubois' (1973)[2] would have been deemed adequate even though the use of the passive without an identifying agent or beneficiary has the effect of obscuring the essential nature of translation as a communicative social act. Adding the missing context—setting and participants—to the definition gives an extra dimension to the perception of the nature and scope of translation.

Our purposes are best served by the approach pioneered by Halliday—Systemic Functional Linguistics (SFL)—which sees language as a series of options for the expression of meaning in a social context and texts as stretches of language designed to express a social purpose and, in any case, Halliday himself characterized SFL as an applicable linguistics theory that can be applied to the solution of problems that arise in communities around the world including *translation* (Matthiessen & Halliday, 1997).

Figure 1: Hallidayan model of language and discourse

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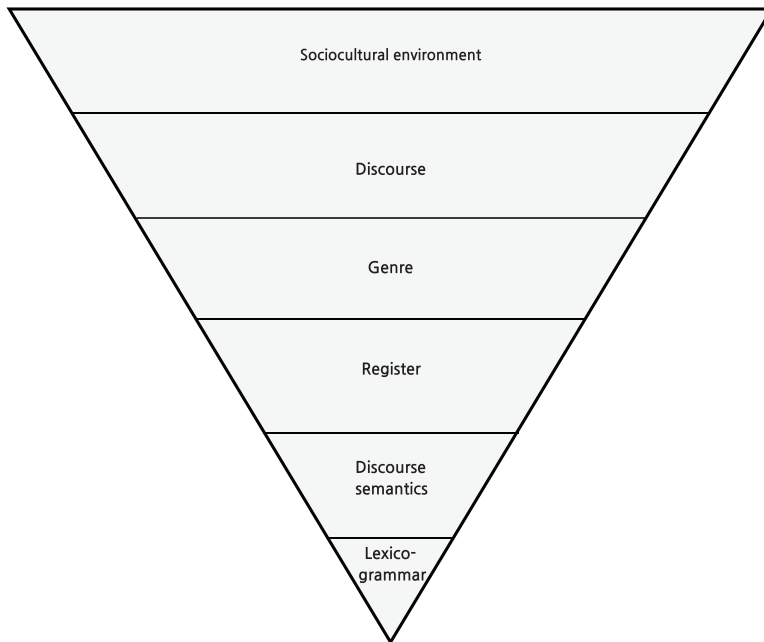
2   Translation is the expression in another language (or target language) of what has been expressed in another, source language, preserving semantic and stylistic equivalences (discussed in Bell, 1991, pp. 5-7).

A distinction needs to be made at this point between a model of the description of *language* and the description of the *translation process*. The SFL model of language and discourse (shown in Figure 1 below) lays out the process of describing language moving from the most general, the overall context (the sociocultural environment in which Discourse is set), to the most specific: the lexico-grammar.

3.1 The TARE Model

In the model of translation used here as the foundation of the TARE Procedure, the movement is, in contrast, from the most specific (the actual, unique text) to the general (the Overall Sociocultural Environment). The reader has to start with the actual, unique text and begin the analytical process by noting the way it is presented and the characteristics of its Lexico-grammar. However, from that point on (s)he is free to draw on the same categories as in the SFL model in any order (s)he finds most convenient.

It should be recognised here that this is, in RE terms, a prototype which is being tested and modified and also a heuristic device and, therefore an idealised representation of what the translator needs to know and do in order to read and translate. It may or may not be what the translator actually does. In reality, the reader/translator is at liberty to work top-down and bottom-up as (s)he sees fit.

Table 1: TARE model

A1	*Graphology*
1.	Language and/or non-language symbols/images/icons.
2.	Letters, syllables, words, clauses, sentences.
3.	Arrangement of lines, rhymes etc...
4.	Fonts and their size, case, and whether underlined, bold or italic or coloured.
5.	Overall presentation of the text: background colouring, framing.
A2	*Lexico-grammar*
1.	*Lexico-grammar*
2.	Lexis: common/rare.
3.	Syntax: simple or complex
4.	Sentences: grammatical/ungrammatical
5.	Linkage between the sentences and clauses cohesive and/or coherent

6.	Collocations between nouns and their modifiers (or qualifiers) marked/unmarked
7.	Ordering of elements in phrase structures marked/unmarked
B.	Four layers of meaning
1.	*Intertextual:* text type
2.	*Intentional:* writer's purpose in writing the text and the intended effect on the reader.
3.	*Contextual:* the setting, in time and space, of the writing of the text plus the participants (those involved in the creation of the text and those referred to in it).
4.	*Cultural:* characteristics of the text that locate it in a particular *culture*

The sender (the creator of the source text) in a communicative event has a responsibility for the difficult task of attempting to ensure that the messages (s)he sends are comprehensible: sufficiently informative, true, relevant and clear to satisfy the receiver's needs. These responsibilities have been formulated in the *Co-operative Principle* (and its four component maxims) by Grice (1975) and are set out in Table 2 below. The receiver also has a reciprocal responsibility to the sender to co-operate in making the exchange a success by making an effort to understand.

Table 2: Grice's maxims

1.Quantity	Be as informative as required: not more; not less
2. Quality	Do not say what you believe to be false or for which you lack adequate evidence
3. Relevance	Say what is congruent with the communication exchange so far
4. Manner	Avoid obscurity of expression and ambiguity; be brief and orderly

In the translation process, the initial sender is the producer of the source text which is received by a reader who, if (s)he writes a new text based on what (s)he receives, (s)he becomes the new sender. Since the translator is sequentially a receiver and a sender, Grice's maxims apply to his/her responsibilities both as a reader in Phase 1 and as a writer in Phase 2.

4. A Procedure for Using TARE

4.1 Phase 1 (Deconstruction)

The term[3] is used here in the limited sense of an essentially sociolinguistic analysis of texts in the context of modelling the process of translation. It does not aim to go further into the wider areas treated by such writers as Derrida (see Lawlor, 2019) and others e.g. Fairclough (1995).

   Stage 1 relates to the surface information the reader can see in the text itself. The analyst accesses the textual interface in order to make a careful study of what Searle (1969) calls "brute facts": Step 1, how it is presented, and Step 2, its lexico-grammatical structure. These provide objective, immediately observable facts that can be identified by reference to already stored meanings in the mind of any reader who is literate in the language(s) used in the text (column A in Table 3 below) and also suggests links from surface to deep meaning available in Stage 2.

   Stage 2 relates to deep information that can be inferred from the four layers of information concealed in the deeper levels of the text. The analyst follows links suggested in Stage 1 to infer what Searle calls social facts: subjective, hidden facts that can only be identified by reference to already stored meanings in the long-term memory of the individual reader (column B in Table 1 below) in four interlinked layers of information listed above.

Table 3: Meaning

A	B
surface	deep
overt	covert
explicit	implicit
context-free	context-sensitive
primary	secondary
literal	metaphorical
denotative	connotative
semantic sense	communicative value

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3   The procedure (based on Darwish, 2008, pp. 162-164) is organized as a sequence of two stages—Stage 1 (with two steps) and Stage 2 (with four steps)—with movement between and among them as the investigation of the source text goes forward.

The reader begins by accepting that his/her role is solely to *collect* information about the meanings in the text, not to make judgements of relevance or follow any particular path to and between the layers and then moves backwards and forwards, as (s)he chooses along the ten available paths between the text and the layers and between the layers themselves, making decisions on the spot, observing or inferring something that triggers moves to other levels where top–down processing is employed to infer something from what has been observed and then, maybe, going back to the text itself to check the actual facts before moving on again to another level and revising as (s)he amasses new information from all five sources, tracing different decision chains and producing different interpretations, and making increasingly sophisticated sense of the text and only coming to an end when (s)he is sufficiently satisfied with the unique rich picture (s)he has built up and is ready, if (s)he wishes, to set about the reconstruction phase by creating a new text on the basis of this particular, provisional, personal reading to share with other translators and/or the client.

A reader who was only able to carry out Stage 1 would be faced by a major problem. Nothing but literal meanings are revealed by the analysis of the actual text. Admittedly, the lexis will give a general idea of how accessible the text is and the relative complexity of the syntax its readability but, without access to the four layers, metaphorical meanings would remain concealed. So much would be uncertain: the temporal and/or physical location of the text, and/or the characteristics of those who participated in its creation, its text type and cultural orientation, the writer's intention and expectations for its effect on readers.

There is no direct correlation between surface syntactic structure and deep semantic sense e.g. "Come round on Sunday" *is* an imperative but can also *count as* an order; a request; an instruction; a suggestion; an invitation.

4.2 Procedure: Phase 1

The following are instructions (in a sense, the Standard Operating Procedures (SOPs) for Phase 1 of the process): a set of targeted questions whose answers may help to make the meanings that are implicit in the text explicit and to do this in a structured way which facilitates recording and sharing, and three short texts with a partial analysis.

Table 4: Phase 1

Stages and steps	Deconstruction
Stage 1	Access the Textual Interface and note immediately observable facts.
1.1 Surface information	a. How is the text presented? Is the text framed? b. What language and/or non-language symbols/images/icons are used? c. How many letters, syllables, words, clauses, sentences (totals) are there? d. What fonts are used? e.g. Arial, Lucinda Calligraphy. Times New Roman e. What font size is used? e.g. Times New Roman 8, Times New Roman 10, Times New Roman 14 f. What case, is used? e.g., Sentence case, UPPERCASE, lower case g. Are any fonts underlined, **bold** or *italic*? h. What color are the letters and/or symbols and the background? i. What is the arrangement of lines, rhy

1.2	Lexico-grammatical structure of the text
	 a. What language(s) is/are used?
	 b. Are there sentences which are difficult to understand? e.g. Woman without her man is nothing.
	 c. Is the lexis common or rare? common: e.g. relaxed, rare sanguine and
	 d. Are the sentences grammatical or ungrammatical? grammatical: e.g. the cat sat on the mat ungrammatical e.g. cat the mat the on sat
	 e. Is the linkage between the clauses and acts cohesive and coherent?
	 f. Cohesive and Coherent e.g. I ordered a coffee, drank it and paid for it.
	       a. I ordered a coffee, paid for it and drank it.
	 g. Cohesive but not Coherent e.g. I drank a coffee, paid for it and ordered it.
	       a. I drank a coffee, ordered it and paid for it.
	       b. I paid for a coffee, ordered it and drank it.
	 h. Is the syntax simple or complex? simple: e.g. the birthday of the brother of the driver of the special envoy of the President of Utopia, complex: Utopia's President's Special Envoy's driver's brother's birthday
	 i. Are the collocations between nouns and their modifiers (or qualifiers) uunmarked or marked? unmarked: e.g. a handsome man, marked: a handsome woman
	 j. Is the ordering of elements in the structure of phrases marked or unmarked? unmarked: e.g. They gave me a cup of coffee marked: I was given a cup of coffee (by them)

Stage 2	Analyze each of the four layers below recursively, iteratively, and in any order, inferring meanings that are signaled by the text, continually checking with it, and building up a progressively sophisticated picture of the many meanings implicit in it.
2.1	*Intertextual layer*: What *kind* of text does this resemble? e.g. a personal letter, a poem, a recipe
2.2	*Intentional layer*: a. Why did the writer write this text e.g. to persuade b. What effect did (s)he intend to have on the reader e.g. to accept the proposal (note)
2.3	*Contextual layer*: the setting, in time and space, of the writing of the text plus the participants (those involved in the creation of the text and those referred to in it). a. Who wrote this text? and b. Who is/are the intended reader(s)? c. When and d. Where was it written?
2.4	*Cultural layer*: a. What characteristics of the text locate it in a particular *culture*? b. Identify Lexical and/or Syntactic, and/or Semantic choices in the text that signal social relationships between participants, such as degrees of formality e.g. Please leave now versus Go away vs Clear off etc. c. politeness e.g. Sit down versus Please sit down vs Please take your seats versus Please be good enough to take your seats d. Political correctness e.g. a person of color status & prestige e.g. Mr/Mrs/Ms/ vs Professor/Dr./Sir/Lord/The Reverend Robin Edwards or e. indicate group membership, f. regional e.g. use of sidewalk in American English and pavement in British English social e.g. UK Socioeconomic classes. Working Class: piece work/hourly/daily/weekly/pay/wage, Middle/ Professional: monthly/quarterly salary g. temporal e.g. gay for carefree since WW2 h. Are there idioms that refer to an underlying cultural view of the world e.g. Any port in a storm/ All hands on deck/Time and tide wait for no one i.Are there literary references e.g. He grinned like a Cheshire Cat and/or j. topical allusions e.g. The clocks go back next weekend/The school holidays start next week or

2.4	j. topical allusions e.g. The clocks go back next weekend/The school holidays start next week or k. examples of humor? incongruity e.g. The toddlers always drove themselves to the kindergarten or wordplay? (Note 1) puns: e.g. Question: What is the undertakers'/morticians' greeting at the start of the day? Answer: Good mourning 1. Is there evidence of the writer accepting/rejecting the maxims of the Co-operative Principle by making a mistake and unintentionally not obeying the rules or flouting its maxims by intentionally not obeying the rules? (Note 2) **Note 1:** What is considered funny in one culture may be seen as offensive in another. **Note 2:** Grice's Co-operative Principle and its associated Maxims are problematic: None of the four norms is culturally neutral and failure to adhere to them may merely be an example of an unintentional mistake rather than an intentional *flout*.

The three texts below were used in a recent TARE workshop[4], so their deconstructions consist of an amalgamation of the contributions of the individual participants.

The first is Text A whose arrangement emphasizes the content of the message. Next comes a humorous cartoon: Text B, where the humor depends heavily on cultural knowledge, and ends with Text C, a short, formal, warning text which will be drawn upon, after deconstruction, to create a brief link with Phase 2 as input to the creation of a translation.
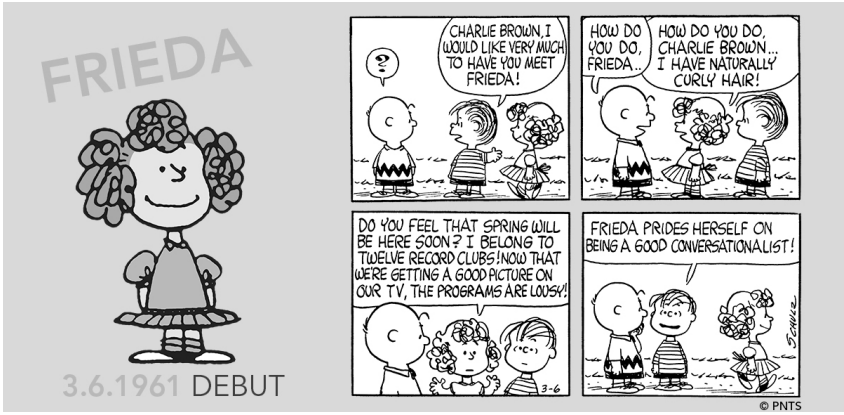
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[4]   TARE was tested in a workshop held in the University of Malaya's Faculty of Language and Linguistics, Kuala Lumpur, in October 2022, with 14 participants from nine languages.

Text A: "Gotcha"

Stage 1: Observable facts of source text	Stage 2: Layers	Comments
Pictures of sinking ships + a single, huge bold, six-letter word in upper case takes up a good third of the page.	Intertextual	Front page of newspaper
Seven word sub headline in smaller font and underlined Introductory sentence: "THE NAVY had the ARGIES on their knees last night after a devastating double punch"	Intentional	To encourage the "war effort" Actual effect: the whole range of individual responses from 100% approval to 100% disapproval (see analysis in Horrie, 2002).
Two stories, each with same small upper case headline and lower case font. Syntax: simple e.g. "Our lads sink gunboat and hole cruiser"	Contextual	Sinking of Argentinian cruiser "Belgrano" on 2 May 1982 during Falklands War Writer: journalist Readers: right-leaning British groups
Lexis: common but often negatively and positively emotive e.g. "Gotcha", "Argies", "on their knees", "devastating double punch", "WALLOP", "useless wreck" versus "our lads", "THE NAVY", "Task Force".	Cultural	Right-wing British tabloid daily.

Text B: Frieda's debut

Stage 1: Observable facts of source text	Stage 2: Layers	Comments
Participants: 3 children Exchanges: 6 (1 non-verbal: question mark) Words: 0, 12, 5, 6+5, 9+21, 8 Lexis: common	Intertextual	Cartoon.
	Intentional	To entertain.
	Contextual	Newspaper/magazine…
Syntax: simple but incoherent. Begins normally with ritual introduction exchange but although each of Frieda's responses are unremarkable, taken together, they are unco-ordinated: flouting three of the four Co-operative Principle's Maxims: Quantity, Relevance, and Manner. It is unclear whether Linus' final comment is intended to be taken literally or whether it is an intentional, humorous flouting of the first element of the Maxim of Manner (ambiguity) counting as irony.	Cultural	Famous cartoon series. Three participants: Linus, Charlie Brown and Frieda. Setting: Frieda is introduced to Charlie Brown by Linus.

Text C: Notice

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<tr><td>
ATTENTION!

If you are using the software product during driving or transportation, we strongly advise you to direct all your attention towards driving or transportation, and to observing traffic regulations and safety requirements. Especially do not try to operate, enter data into or obtain data from the software product while driving, because such represents a life hazard, and the lack of attention may cause death, injury or material damage

ACCEPT
</td></tr>
<tr><td>
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ACCEPT
</td></tr>
</table>

Stage 1: Observable facts of source text	Stage 2: Layers	Comments
	Intertextual	Notice

Language: English
Participants: none indicated
Exchanges: Message on 2 screens
Lines: 9 + 7 = 16
Words: 70 + 60 = 130 (note: the last 60 words of screen 1 are repeated, verbatim, in screen 2) Lexis: common but with many examples of legal terminology, e.g. "such" for "this/that" or defining something e.g. "the software product" or in triples e.g. "death, injury or material damage"
 	
Syntax: simple: 3 single word headings (in boxes) and two simple coordinated sentences: 32 and 36 words, in Screen 1 and 23 and 36 in Screen 2) but a number of legal -type structures: clause, clause, clause: e.g. "Do not try to operate, enter data into or obtain data from the software product"
	Intentional	Two possible intentions and expected outcomes:
		1. To warn of driving without due care.
		   To change driver behavior and
		2. To protect the provider from claiming compensation in the event of an accident and accident and
		     To discourage the reader from holding the provider to account.

	Contextual	No clear indication: could be a leaflet or most probably displayed on the car dashboard LED monitor
	Cultural	Dual function text: warning and disclaimer.

4.3 Phase 2: Reconstruction

Reconstruction is putting together pieces of information which emerge from reading and taking the text apart. Through analysis and discussion, translators are made aware of issues of language choices, culture, and communication. Most experienced translators approach translation simply relying on intuitive judgement and practical language skills. Translators are like skilled and experienced drivers who don't need to be constantly aware of what they are doing (until perhaps when they become driving instructors). It is a process with constant decision making, selecting and deselecting, using stored memory relating to meaning and its connection to words, recognizing patterns and their connections with particular texts.

The less experienced translator, on the other hand, will need guidance in deciding on appropriate strategies (see Methods and Techniques below). TARE provides the mental focus or the priorities to be considered in preparation for translation. The translator takes the information provided in Phase 1, and uses what is relevant for making choices relating to the forms and functions of the target text. Knowledge of texts at this point is crucial as it suggests strategies required to translate them. If a text is specialized, the translator will be able to determine its function and the specific situation in which it occurs. For example, the information is immediately clear in a legal text. However, in a literary text such as a chapter from *Alice's Adventures in Wonderland* in which multiple meanings are presented, careful interpretation is required. It is this understanding that enables a translator to use intuitive judgement and make global choices that apply to the whole text and local choices that are limited to parts of the text. Vinay and Darbelnet (1995) offered seven categories of strategies:

1. Borrowing: one language taking words directly from another and presenting them through their own writing system in the target text. Example: *Computer ⇒ Komputer*
2. Literal Translation: word-for-word translation that is as close as possible to the original and is grammatically correct, semantically accurate and stylistically appropriate. This is normally only possible with languages that are closely related linguistically and culturally. Example: *Where is the station? ⇒ Où est la gare ?* works perfectly well for French and English but not Malay where the mandatory syntactic

order would be Adverb Complement and no copular verb: *Stesen di mana?*

3. Calque: the creation of a neologism (a word or phrase) by translating into the target language but retaining the syntactic structure of the source. Example: *Go back ⇒ Gostan* (lit. *go astern*)

4. Transposition changes the word order in a phrase or a sentence without altering the meaning of the text. Example: *Everyone would agree* that... ⇒ *Tiada sesiapa akan menolak* (lit. *no one will reject...*)

5. Modulation: changing the form of the text by introducing a semantic change or perspective. Example: Thank you ⇒ *Terima kasih* (lit. accept love)

6. Adaptation takes this even further and adds in a wider cultural context. Example: Feast ⇒ *khenduri* (a social and religious ritual typically celebrating a rite of passage.

7. Equivalence or Reformulation: using a completely different expression to express the same reality. Through this technique, names of institutions, interjections, idioms or proverbs can be translated. Example: It's better to be late than sorry ⇒ *Biar lambat asal selamat* (lit: Better to be late as long as (one is) safe.)

4.4 Reconstruction Example

Text C has been selected to be deconstructed and then used as an example of reconstruction into another language. On the basis of information from Phase 1, the translator needs to make an informed decision about the purpose of the text and the characteristics of the end user (target readership) in order to make appropriate choices of language and layout. The text has a dual purpose: 1. To warn and 2. To indemnify the producers of the software in the event of an accident. The target readership will be a Malay speaking driver of the vehicle. In this case the text is to be translated from English into Malay.

Table 5: Relevant facts

Stage 1: Observable facts of source text
Language: English Participants: none indicated Exchanges: Message on 2 screens Words: 70 + 60 = 130 (note: the last 60 words of screen 1 are repeated, verbatim, in screen 2) Lexis: common but with many examples of legal terminology, e.g. "such" for "this/that" or defining something e.g. "the software product" or in triples e.g. "death, injury or material damage" Syntax: simple: 3 single word headings (in boxes) and two simple coordinated sentences: 32 and 36 words, in Screen 1 and 23 and 36 in Screen 2) but a number of legal-type structures: clause, clause, clause: e.g. "Do not try to operate, enter data into or obtain data from the software product"

Table 6: Relevant inferences

Stage 2: Layers	Comments
Intertextual	Notice

Intentional	Two possible intentions and expected outcomes:
	1. To warn of driving without due care.
	   To change driver behavior and
	2. To protect the provider from claiming
	   compensation in the event of an
	   accident and
	   To discourage the reader from holding
	   the provider to account.

Contextual	No clear indication: could be a leaflet or most probably displayed on the car dashboard LED monitor
Cultural	Dual function text: warning and disclaimer.

Decisions made:

- Retain *Perhatian* [Attention] to signal the purpose of the text.
- Merge the texts currently occupying two screens into one.
- Reorganize the grammatical structure of the text (see back translation).
- Reduce the verbiage (e.g. "Especially do not try to operate, enter data into or obtain data from the software product while driving..." change to "You are advised not to operate, obtain or enter data into the software while driving this vehicle".
- Shorten sentence 1 from 32 words to 17, and sentence 2 from 36 to two sentences each with 12 words.
- The intention of the text is to warn the reader of the danger of not observing safety procedures, this is done in a neutral way.
- Culturally, the text originates from a non-native English environment (Japanese) and is a recommendation rather than a directive. Change to a directive, express it firmly.
- The term *Setuju* [Agree] is selected in the Malay version rather than *Terima* [Accept] as receive or accept has less strong commitment and in any case does not normally stand alone.

Reformatted text (based on Phase 1, Stage 1, steps 1 and 2)

<div style="border:1px solid">

ATTENTION!

If you are using the software product during driving or transportation, we strongly advise you to direct all your attention towards driving or transportation, and to observing traffic regulations and safety requirements. Especially do not try to operate, enter data into or obtain data from the software product while driving, because such represents a life hazard, and the lack of attention may cause death, injury or material damage.

AGREE

</div>

The Malay version:

<div style="border:1px solid">

PERHATIAN!

Anda dinasihatkan supaya tidak mengoperasi, mendapatkan atau memasukkan data ke dalam software semasa memandu kenderaan ini. Sila beri sepenuh perhatian ketika memandu, mematuhi peraturan jalan raya, dan memenuhi keperluan keselamatan. Kegagalan berbuat demikian mungkin menyebabkan kecederaan, kerosakan harta benda dan kematian.

SETUJU

</div>

Back translation

ATTENTION!
You are advised not to operate, obtain or enter data into the software while driving this vehicle. Please pay full attention when driving, obey traffic rules, and safety requirements. Failure to do so may result in injury, property damage and death.
AGREE

5. Conclusion

TARE is far from being an original far-reaching theory. It is no more than a modification of several existing theories, particularly SFL and Jacobson's tripartite division of translation into the *intralingual,* the *interlingual*, and the *intersemiotic*. What is new are the *implications* of using the TARE Procedure. It makes it possible to systematise and share the deconstruction of texts and produce sophisticated analyses that can be valuable input into the reconstruction phase: a decision making-process consisting of making syntactic and lexical choices that suit the *purpose* of the proposed translation and the characteristics of the *intended readership.*

An additional, even if rather obvious benefit, is that the technique will, inevitably, enhance the translator's reading and writing skills. This is most easily achieved if we accept the view that translation can be legitimately carried out *within the same language* which opens up the opportunity of using mother tongue texts for deconstruction and reconstruction e.g. rewriting a poem about nature as a newspaper article or an entry in a guidebook.

TARE also has potential for empowering translators in a number of ways, whether as individuals or as a group of professional language service providers.

Traditionally, the translator was required to be "faithful" to the source text by writing "equivalents" to the semantic and stylistic character of the source text in the target language. Now the translator is freed from this responsibility and able to recognise the source text as a resource to be drawn upon as (s)he translates, rather than a valuable artefact that has to be "preserved".

Today it is unusual for translators to work alone, as they did in the past and are now typically members of Small to Medium Enterprises (SMEs) which means that they are accustomed to working together sharing the task of

translating. Such a co-operative approach, organized through participation in a "focused conversation" has an equal voice in developing individual analyses of texts and amalgamating them for presentation. This is likely to increase the value of the experience and result in the creation of sophisticated analyses of source texts and translations that are "fit for purpose".

The Procedure not only encourages structured discussion and results in a higher quality product, it also forms the basis for building what have been called (by Chesterman & Wagner, 2002) "Translators' Toolkits" of theoretical concepts that translators can bring to their work and use in negotiations with clients and/or in the classroom.

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