

PARSING TECHNIQUES IN SIMULTANEOUS INTERPRETING (SI) AND THEIR IMPLICATIONS FOR AUTOMATIC SIMULTANEOUS TRANSLATION

WALLACE CHEN, PHD

PROFESSOR OF CHINESE-ENGLISH TRANSLATION AND INTERPRETATION
MIDDLEBURY INSTITUTE OF INTERNATIONAL STUDIES AT MONTEREY
CALIFORNIA, U.S.A.

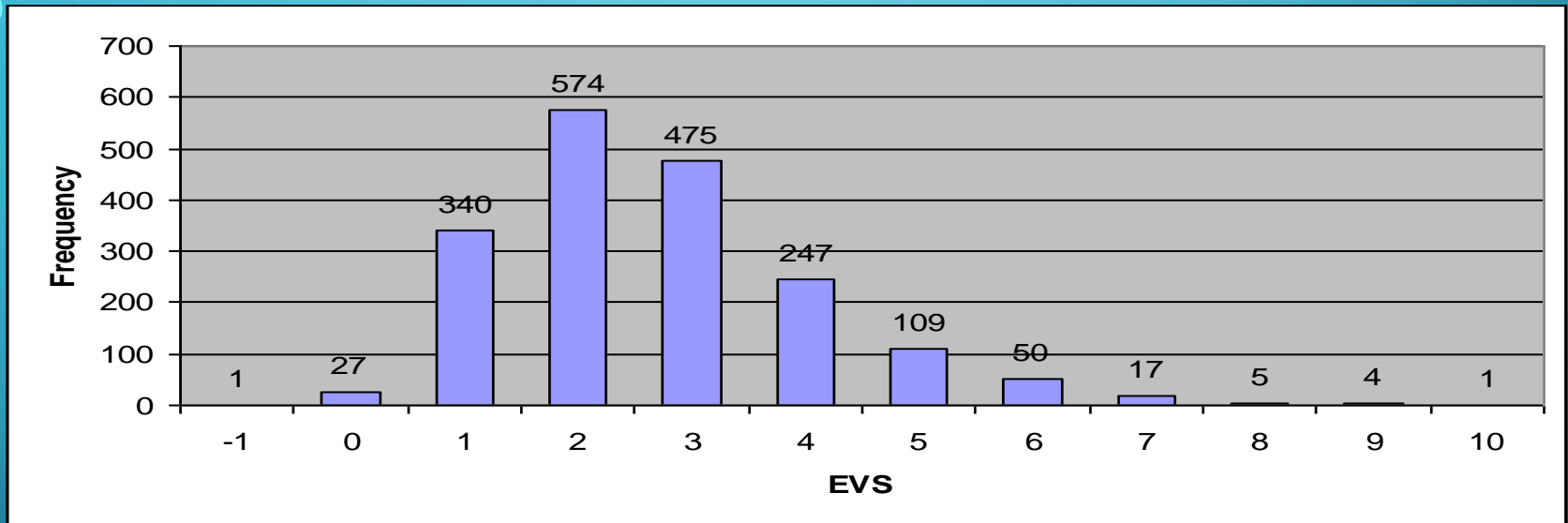
PARSING IN SI: SOME GUIDING PRINCIPLES

- **Reduce and better allocate working memory**
- **Syntactic awareness and seamless (linear) conversion**
- **Never wait till the end of a long sentence to interpret**
- **Interpret and forget (prefer smaller chunks over long ones)**
- **Tailgate the speaker tactically**
- **Parsing on the fly**
- **Be agile and resourceful**

EFFORT MODELS

- Effort Models (Gile 1992): use minimal effort to achieve maximal result
- $I = L + M + P + C$
- I: Interpretation
- L: Listening & Analysis Effort
- M: Memory Effort
- P = Production Effort
- C = Coordination Effort

EAR-VOICE SPAN (EVS)* / TIME LAG / *DÉCALAGE*



- Short EVS – transcodage (word-for-word translation)
- Long EVS – high memory load, leading to omissions

*Source: Defrancq 2015

CHUNKING OR SEGMENTING LONG SENTENCES

- As it is an honor / to be here with you today,
/ so is it a pleasure / to be part of a
conference / that focuses all of us on an issue
/ as crucial as our very lifeblood: / Energy.
- Abu Dhabi's bold vision for sustainable
energy / is transforming this nation / and
inspiring our region / at a time / when the
Arab world is at a critical juncture.

ANTICIPATING

- Co-occurring:

As it is an honor to be here with you today, so is it a pleasure to be part of a conference that focuses all of us on an issue as crucial as our very lifeblood.

- Inverted subject:

By being here today, you're already part of the solution to the global energy crisis.

- *Without-no* construction:

Without sustainable energy, there can be no sustainable development.

ANTICIPATING

- **In a time of** diminishing financial resources for diplomacy, **it is critical** that we help forge a new coalition between “traditional” foreign policy specialist, environmental experts, and business leaders.
- **No better** spot to be learning compassion and love **than** in the outdoors, and it's an honor to be here.

KEYWORD IDENTIFICATION

When you hear.....	Think of.....
Hi, I'm Belle Sawhill.	Greetings + Self intro
I am a co-director of the Center for Children and Families here at Brookings,	Job title and affiliation
along with Ron Haskins.	Co-worker
And we have invited a group of experts from around the country to join us today	US experts invited
for the first annual Summit on Social Mobility in the United States.	For an event
It was organized by my colleague, Richard Reeves.	Organizer
And we're really delighted	😊😊😊
to have so many wonderful experts here	You experts here
to talk about this issue all day.	Today's theme
But if we're going to put social mobility on the agenda in the United States	Scene setting
and figure out what to do about it,	Solution?
we're going to need help from people in public life.	Extra help
And so it is just a tremendous honor to have someone with us today	Introduce a person
to begin to help us address these questions.	collaboration
Senator Gillibrand was first appointed to the Senate by the governor	Senator's seat
after Hillary Clinton vacated her post.	After Hillary

THE SALAMI



Source	Target
Abu Dhabi's bold vision for sustainable energy	Abu Dhabi's has bold vision for sustainable energy
is transforming this nation	It is transforming this nation
and inspiring our region	It is inspiring our region
at a time when the Arab world is at a critical juncture	to lead the Arab world through this critical juncture

BEING RESOURCEFUL

Source	Target
It is a cruel irony that	There is a cruel irony
those who've had the least to do with climate change and energy crises	Some people had the least to do with climate change and energy crises
are paying the highest price.	But they are paying the highest price.

CROSS-LINGUISTIC DIFFERENCES

Source (hypotactic)	Target (paratactic)
This is a day	Today
when all Americans	All Americans
from every walk of life	Regardless of their occupations
unite in	Will work hand in hand
our resolve for justice and peace.	To pursue justice and peace

RHETORICAL QUESTIONS

EXAMPLE FROM LIZ ESSARY (2018)

But the reason I love this is...	“Why do I love this?” or “I love it!”
The reason for that is...	Why?
We’ve done so much over the past few years in terms of...	What have we done in the past few years? We’ve...
Rationale: dealing with fast speakers / interpreter not sure where the speaker is going / energy saving	

ONE-TO-MANY RECONSTRUCTION

Source	Target
Since 2009, the world has been stuck on a single narrative / around a coming global food crisis / and what we need to do to avoid it: / How do we feed nine billion people by 2050?	Since 2009, the world has been stuck on a single narrative.
	The issue concerns a coming global food crisis.
	And what we need to do to avoid it:
	The issue is how do we feed nine billion people by 2050?

AUTOMATIC SIMULTANEOUS TRANSLATION



因此，如果你不想要更多的步骤，你可能会警告你
要用写句子来代替。
机器人会是一个可能是一个或两个句子然后告诉机
器人它会。
步骤，以便时间，一个模式重复按钮应该能够被识
别和冥想想要能够识别那种自由。
它发生了，所有的都发生了，最后一个得到了所有
这些，然后你需要。
启动计算机来做这些工作，这就是他们的全部设计
决定是现在就做。
一步一步的指令，实际上也是。

HUMAN SIMULTANEOUS INTERPRETING



Hugo Chavez
Venezuelan President

News Japan's ruling LDP elects Shinzo Abe head of party

The left side of the slide features a decorative background. It includes a series of white, stylized circuit lines that branch out from the top left towards the bottom. Below these lines, there is a row of colorful, three-dimensional human figures in various colors (green, red, blue, yellow, brown) standing on a light-colored surface. The right side of the slide is a solid blue gradient.

QUALITY CRITERIA FOR INTERPRETING AT COUNCIL OF EUROPE MEETINGS

1. Correct use of terminology
2. Sense consistency with the original
3. Completeness
4. Logical cohesion
5. Fluency
6. Grammar
7. Voice
8. Accent

Source: Downie 2017

FUTURE OF AI-BASED SIMULTANEOUS TRANSLATION

Human interpreters' parsing techniques and sense

+

Client's expectations

+

Machine translation technologies

HUMAN-MACHINE SYNERGY

