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In Times of Neural Machine Translation: Linguistic Competence Back on the Translation Stage

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- Translation competence: past and present
- Neural machine translation
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Introduction

- Translation Studies has a long past, but a short history (Ana María Gentile, 2013:1).
- Translation is not only an academic discipline, but also a business.
- Translation competence is difficult to be defined.
- Translation competence has continually enlarged its conceptual framework and gradually evolved from a “unique competence” into a set of interrelated (sub)competences.

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Translation competence: past and present

- In the post-industrial era, **translation** was considered a matter of
  - **linguistic competence** (Vinay and Darbelnet, 1958; Catford, 1965; Mounin, 1976; Pergnier, 1976…),
  - an **innate skill** or a **bilinguals' asset** (Harris and Sherwood, 1978).

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Translation competence: past and present

- In the information era, **translation competence** was seen as
  - an **ideal bilingual competence,**
  - an **expert competence**, or
  - a **multicomponent communicative competence:**
    - grammatical competence,
    - socio-linguistic competence,
    - discourse competence,
    - strategic competence.

(Bell, 1991: 38-43).

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Translation competence: past and present

- The functionalist scholars defined translation as a skopos-driven or purposeful activity (Nord, 1997).

- The multicomponent approach of translation competence was reinforced: a set of interrelated competences in terms of knowledge, skills, awareness and expertise (Schäffner and Adab, 2000: ix-x; Kiraly, 2000: 3).

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Translation competence: past and present

- Models/frameworks of translation competence:
  - PACTE's holistic, dynamic model of translation competence (2003)
  - Göpferich's model of translation competence (2009)
  - EMT's Framework of competences (2009; 2017)

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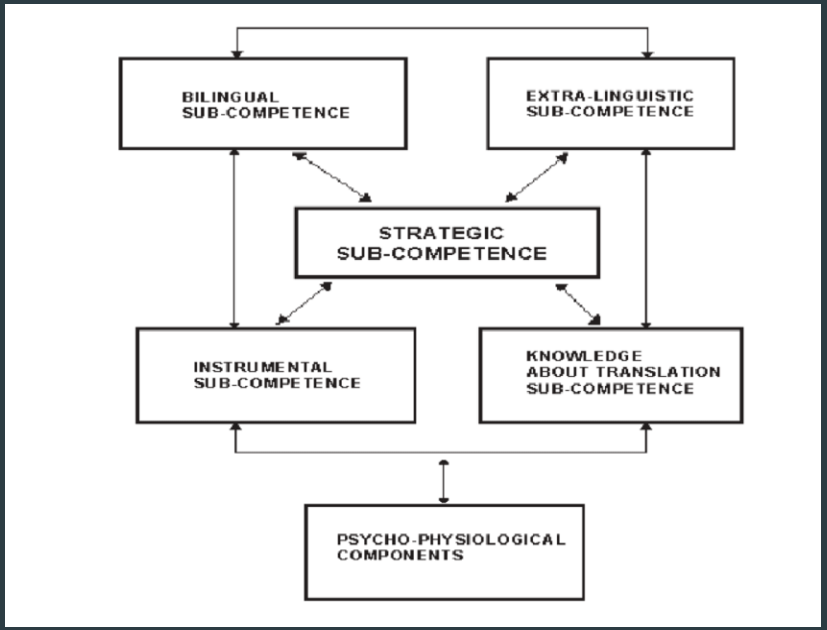
Translation competence: past and present

- Models/frameworks of translation competence as a set of interrelated competences:
  - PACTE's holistic, dynamic model of translation competence (2003)



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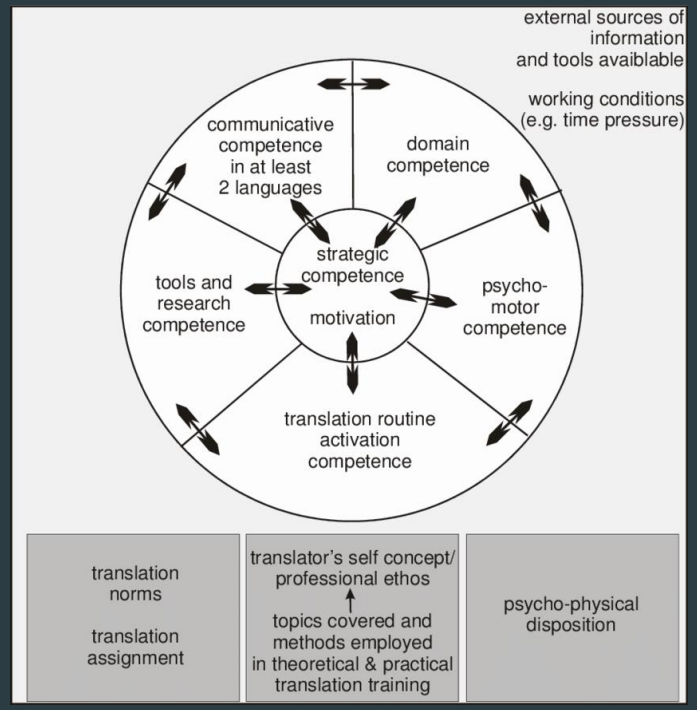

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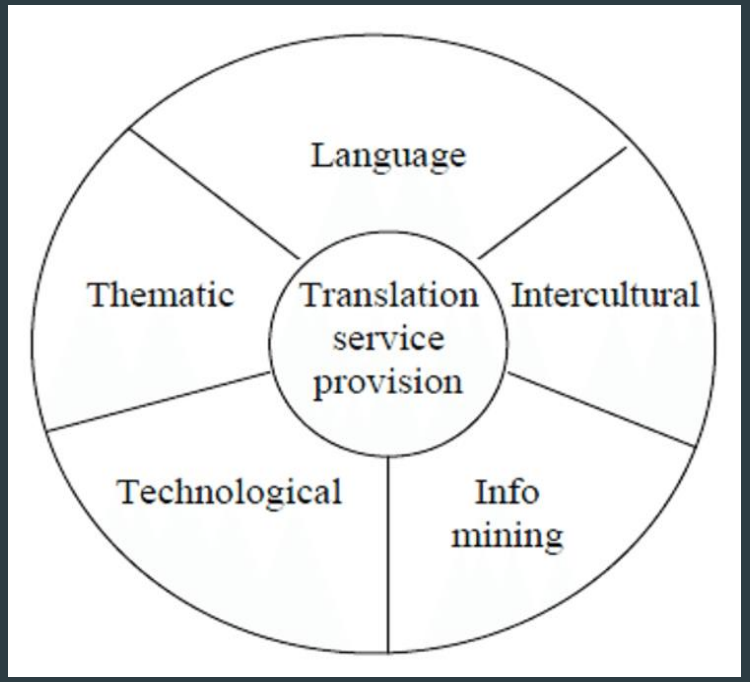

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Translation competence: past and present

- Models/frameworks of translation competence as a set of interrelated competences:
  - EMT's Framework of competences (2017)
    - language and culture
    - translation
    - technology
    - personal and interpersonal
    - service provision

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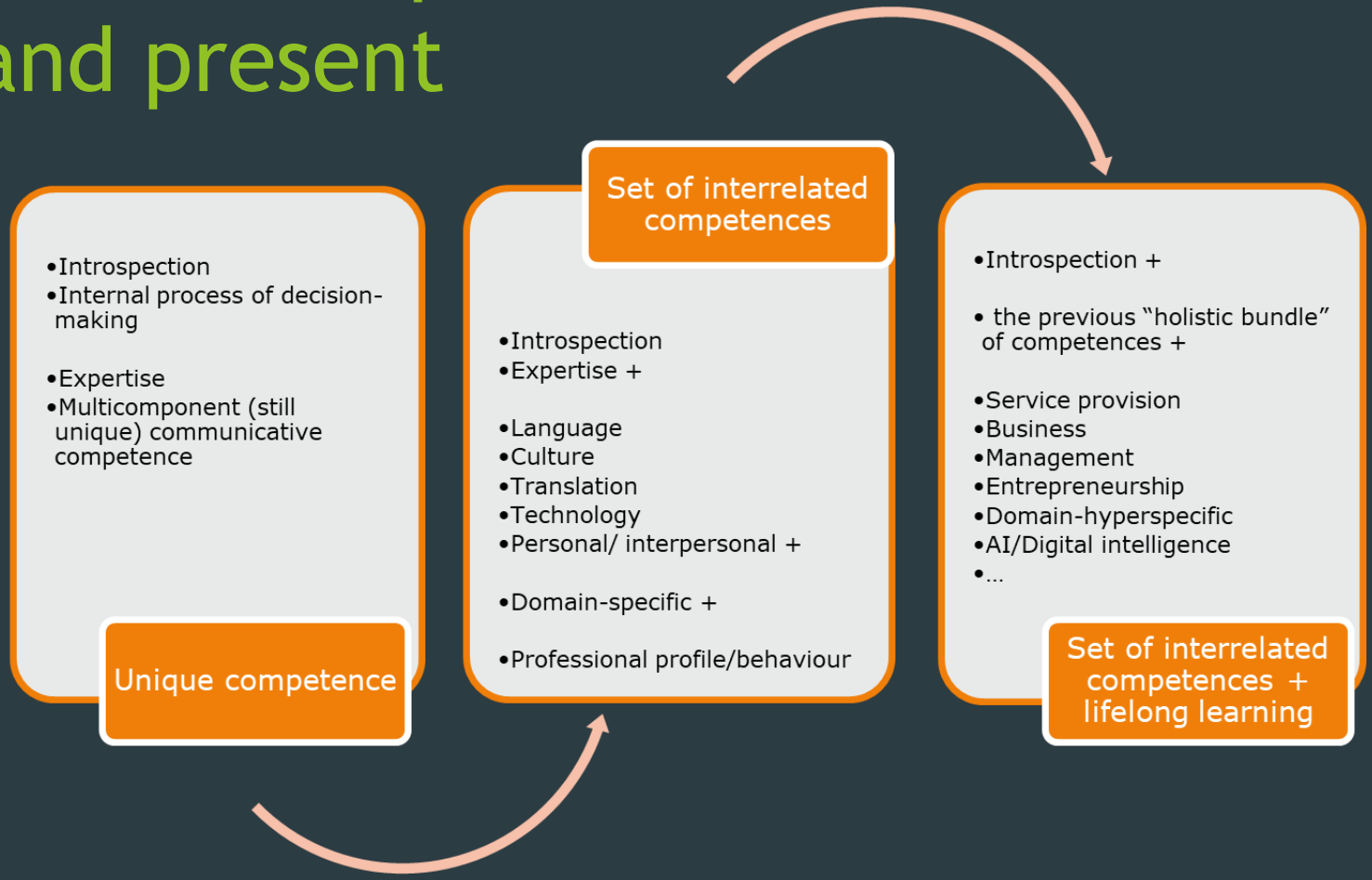
Translation competence: past and present



The Changing Landscape of Translation Competence (Bulgaru, 2020: 101)

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Neural machine translation

- Neural machine translation:
  recurrent neural networks and deep learning algorithms

- Different degrees of NMT quality;
  post-editing - compulsory for quality similar to human translation.

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Neural machine translation

- NMT implemented/used by
  - 58% of language companies;
  - other 20% plan to do so;
  - >70% of independent language professionals, to some extent;
  - >60% of the academia/training institutes;
  - other 10% plan to do so.

(ELIS, 2022: 25)

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Methodology

- Quality assessment of neural machine translation from English into Romanian
  - What errors and NMT phenomena are produced in the output in Romanian?
  - What competences are put at work more when post-editing and revising NMT?
  - English news corpus translated in Romanian -> 6960 words/558 segments
  - Google Translate - best engine with low-resource languages, due to its large database to train with
  - harmonized MQM-DQF quality assessment model elaborated by QTLaunchPad and TAUS

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Methodology

- Quality assessment of neural machine translation from English into Romanian
  - harmonized MQM-DQF model elaborated by QTLaunchPad and TAUS - eight dimensions for assessing errors in translation:
    - Accuracy
    - Design
    - Fluency
    - Locale Conventions
    - Style
    - Terminology
    - Verity
    - Other

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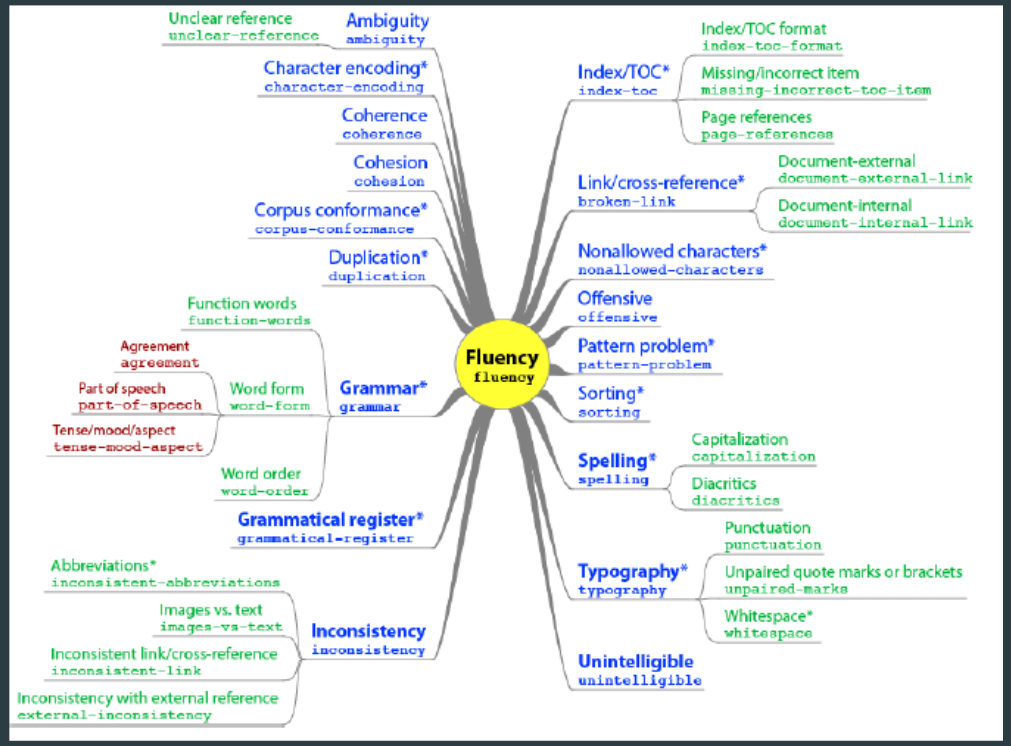
Methodology

- Quality assessment of neural machine translation from English into Romanian (Lommel et al., 2015)



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Findings

- NMT output of 6960 words – 501 errors, with different degrees of severity (critical, major, minor, neutral)

- the highest error percentages:
  - Accuracy - 170 errors
  - Fluency – 164 errors

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Findings

- Number and types of Fluency errors

Count of Error Category	Column Labels				
Row Labels	Critical	Major	Minor	Neutral	Grand Total
⊞ Accuracy	64	42	45	19	170
⊟ Fluency	14	56	82	12	164
⊞ Grammar	10	49	55	10	124
⊞ Inconsistency			2		2
⊞ Punctuation	1	1	10		12
⊞ Spelling			8		8
⊟ (blank)	3	6	7	2	18
ambiguity	1	1	2		4
coherence				1	1
cohesion	2	5	5	1	13
Grand Total	**78**	**98**	**127**	**31**	**334**

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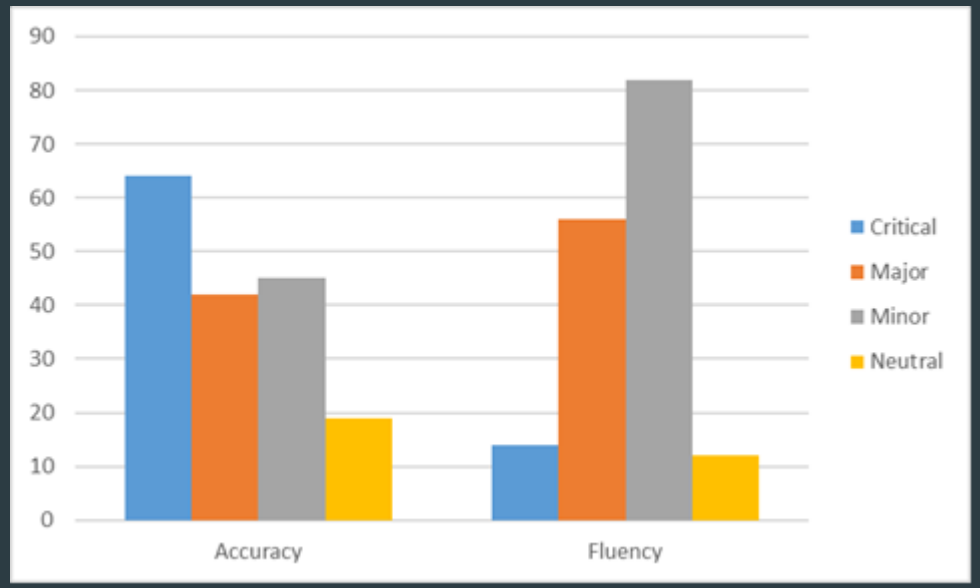
Findings

- Severity of Accuracy and Fluency errors



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Conclusions

- The post-editing process is cumbersome and the workload considerable.
- The great number of Fluency errors make the NMT output in Romanian be of poor quality, thus the effort of post-editing is tremendous in order to attain the necessary quality for publishing.
- Translators need a very strong linguistic competence in order to solve not only grammar, but also ambiguity, cohesion, coherence, and reformulation issues.
- Post-editing certainly calls for a refocus on linguistic competence in students' translation training.

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Conclusions

- Given the type of (journalistic) text and the translation aim, pre-evaluation of NMT punctual appropriateness would be helpful.

- NMT usage draws attention to the difference between translation competence and translator's competence.

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Thank you!

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