



# **Translating Translation: An Interlinguistic and Intercultural Study of ‘Popular’ Economics Discourse**

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# Introduction

- According to Kuhn (1996: 200) in science shared values and experiences ensure that a community of scientists finds some arguments rather than others decisive
- Breakdowns in scientific communication occur when different languages communities cannot find a 'common' language (Carrada 2005)
- A way out of this *incommensurability* is to become translators (Kuhn 1999: 34)



# Introduction

- It is often believed that in the communication of science to the public meaning is 'pre-packaged' as the audience or readership cannot challenge it
- Recent studies have shown, however, that negotiation of meaning does occur in popular science - especially when solutions of a scientific problem are discussed (Bucchi 2000, Guizzardi 2002)



# What is 'popular' economics?

- While it is quite clear what popularization of a hard science is, it is perhaps less clear what popular economics is apart from books and articles where economists explain the theory and practice of economics to a lay readership
- There is, however, popularization of economics at a different - slightly higher? - level where economists or economic journalists report about economic problems and solutions in newspapers and magazines



# Rhetoric of popular economics

- Myers (1990), Halliday and Martin (1993) and Halliday (1999) - among others - have pointed out that it would be wrong to assume that the sophisticated academic style of scientific journals follows rhetorical criteria while the 'everyday' style of popular science in newspapers and magazines does not
- If a degree of incommensurability is endemic in and between languages (Kuhn 1999: 34), it should be expected that what is prototypical in language A may not be equally so in language B



# Aims of analysis

- Comparison of intralingual and intracultural translation of economics from scientific into commonsense or popular discourse
- Comparison of interlingual and intercultural translation of magazine articles from English into Italian



# Method

- Apply Biber's multi-dimensional analysis to investigate the dimensions of variation in specialised domains (Conrad & Biber 2001) using corpus methods
- Use of Halliday's methodology to uncover polarity and primary tense in English and Italian economics (Halliday & James 1993) - with recourse to tagged corpora
- Compare and contrast the use of some discourse markers in the components of the English and Italian corpora under investigation



# Biber & Conrad's MD analysis

- Identify linguistic features to use in the analysis of register variation
- Assign a set of co-occurring features to a factor
- Establish relations between linguistic features and factors
- Represent the strength of the relationship by factor loadings
- Interpret factors as dimensions of variation





# Halliday & James's analysis

- Identify and count finite clauses
- Identify positive-negative polarity. In polarity, positive is the unmarked option
- Identify primary tense in finite clauses. Primary tense has three options: past, present, and future. In general language, while past and present are equally probable, future is less so



# Analysis of discourse markers

- Identify discourse markers in frequency lists using corpus methods
- Cross-check results by looking at keywords in corpora
- Compare and contrast findings
- Set up a hypothesis to account for differences



# Analysis: the corpus

- The corpus includes documents dating from 1999 to 2006. It is a comparable and parallel corpus of economics which has now being tagged using Tree Tagger - a program developed by the University of Stuttgart
- The corpus is analysed both in its raw and its tagged versions depending on the type of feature investigated
- Tree Tagger provides different tagging systems in an attempt to better capture the features of the languages to be tagged



# Analysis: the corpus

- For English, two components of the corpus were used: 1. IMF and OECD reports, 2. articles from *The Economist* and *The World In...*
- For Italian, three components were chosen: 1. reports of the Bank of Italy, 2. a small collection of economics articles from newspapers and magazines, 3. translations from *The Economist* and *The World In* published by *Economy*
- The aim is to compare and contrast the language of the sources of economic information - reports - with that of magazine articles in English and Italian



# Biber's dimensions of register variation

- **Dimension 1:** Involved vs Informational Production
- **Dimension 2:** Narrative vs Non-narrative Discourse
- **Dimension 3:** Elaborated vs Situation-dependent Reference
- **Dimension 4:** Overt Expression of Argumentation
- **Dimension 5:** Abstract vs Non-abstract style
- **Dimension 6:** On-line Informational Elaboration Marking Stance
- **Dimension 7:** Academic Hedging



# Dimension 1

- Positive loadings on Factor 1 are associated ‘with an involved, non-informational focus, related to a primarily interactive purpose’ (Conrad & Biber 2001: 24)
- Negative loadings are typically associated with written expository prose and its frequent nouns, long words, nouns modified by attributive adjectives or prepositional phrases
- Registers with (large) positive values indicate a more involved production

<b>Factor 1</b>		<b>Reports</b>	<b>Economist/The World in</b>
<b>Involved vs information. production</b>	<b>Loading</b>	<b>161,537</b>	<b>94,270</b>
<b>Present tense verbs</b>	<b>0.86</b>	<b>26.79</b>	<b>40.07</b>
<b>2<sup>nd</sup> person pronouns</b>	<b>0.86</b>	<b>0.06</b>	<b>0.95</b>
<b>Analytic negation</b>	<b>0.78</b>	<b>4.43</b>	<b>8.88</b>
<b>Pronoun <i>it</i></b>	<b>0.71</b>	<b>2.24</b>	<b>8.07</b>
<b><i>Be</i> as main verb</b>	<b>0.71</b>	<b>13.45</b>	<b>21.64</b>
<b>Hedges</b>	<b>0.58</b>	<b>24.29</b>	<b>22.48</b>
<b>Boosters</b>	<b>0.56</b>	<b>2.36</b>	<b>5.84</b>



<b>Factor 1</b>		<b>Reports</b>	<b>Economist/The World in</b>
<b>Involved vs information. production</b>	<b>Loading</b>	<b>161,537</b>	<b>94,270</b>
<b>Nouns</b>	<b>-0.80</b>	<b>320.8</b>	<b>297.6</b>
<b>Mean word length</b>	<b>-0.58</b>	<b>5</b>	<b>5</b>
<b>Prepositions</b>	<b>-0.54</b>	<b>190.3</b>	<b>153.6</b>
<b>Type/token ratio</b>	<b>-0.54</b>	<b>5</b>	<b>10</b>
<b>Attributive adjectives</b>	<b>-0.47</b>	<b>100.1</b>	<b>86.5</b>





# Dimension 2

- Positive weights are associated with past time narration - whether using the past tense or perfect aspect verbs
- Negative features - present tense verbs and attributive adjectives - have no strong weight and have thus been excluded from analysis here



<b>Factor 2</b>		<b>Reports</b>	<b>Economist/The World in</b>
<b>Narrative vs non-narrative discourse</b>	<b>Loading</b>	<b>161,537</b>	<b>94,270</b>
<b>Past tense verbs</b>	<b>0.90</b>	<b>9.73</b>	<b>16.13</b>
<b>3<sup>rd</sup> person pronouns</b>	<b>0.73</b>	<b>2.01</b>	<b>6.51</b>
<b>Perfect aspect verbs</b>	<b>0.48</b>	<b>7.60</b>	<b>10.02</b>
<b>Public verbs (sample)</b>	<b>0.43</b>	<b>0.46</b>	<b>3.70</b>
<b>Synthetic negation</b>	<b>0.40</b>	<b>3.80</b>	<b>8.00</b>
<b>Present participial clauses</b>	<b>0.39</b>	<b>2.71</b>	<b>4.64</b>



# Dimension 4

- This dimension only exhibits positive weights
- The features indicated point to explicit persuasion or argumentation in the discourse
- For the analysis of economics discourse prediction modals are particularly relevant as linguistic expressions of predictions or forecasts



<b>Factor 4</b>		<b>Reports</b>	<b>Economist/The World in</b>
<b>Overt expression of argumentation</b>	<b>Loading</b>	<b>161,537</b>	<b>94,270</b>
<b>Infinitives</b>	<b>0.76</b>	<b>21.85</b>	<b>29.49</b>
<b>Prediction modals</b>	<b>0.54</b>	<b>8.65</b>	<b>20.47</b>
<b>Suasive verbs (sample)</b>	<b>0.49</b>	<b>0.30</b>	<b>0.78</b>
<b>Conditional subordination</b>	<b>0.47</b>	<b>2.60</b>	<b>4.89</b>
<b>Necessity modals</b>	<b>0.46</b>	<b>3.29</b>	<b>2.57</b>



# Halliday's model

More frequent negative forms indicate a marked use of language which may be suitable to keep readers' attention in the press

- A higher number of occurrences of present tense forms in Italian articles can point to the use of the so-called 'narrative' present
- A high or marked use of the future in English can reflect the frequency of predictions and forecasts in economics
- A lower number of finite clauses suggests longer, more complex sentences



<b>Polarity &amp; primary tense</b>	<b>Reports</b>	<b>The Economist /The World in</b>	<b>Italian reports</b>	<b>Comp. Italian corpus</b>	<b>Parallel Italian corpus</b>
<b>Tokens</b>	<b>161,538</b>	<b>94,278</b>	<b>161,356</b>	<b>44,636</b>	<b>100,410</b>
<b>Sent.length</b>	<b>27</b>	<b>21</b>	<b>31</b>	<b>23</b>	<b>22</b>
<b>Negatives</b>	<b>8.23</b>	<b>16.88</b>	<b>4.29</b>	<b>16.76</b>	<b>14.65</b>
<b>Present</b>	<b>26.79</b>	<b>40.07</b>	<b>29.00</b>	<b>50.18</b>	<b>49.22</b>
<b>Past</b>	<b>17.33</b>	<b>26.15</b>	<b>27.76</b>	<b>18.57</b>	<b>20.05</b>
<b>Future</b>	<b>5.04</b>	<b>16.69</b>	<b>0.92</b>	<b>5.09</b>	<b>9.41</b>
<b>Finite clauses</b>	<b>49.16</b>	<b>82.91</b>	<b>57.68</b>	<b>73.84</b>	<b>78.68</b>



# Compare the flexibility of the original Italian...

- che la tendenza al declino può essere arrestata e invertita. Se ciò **avverrà**, il 2006 **sarà** l'anno di inizio di una nuova fase espansiva.
- Gli unici, insieme ai bond a tasso variabile, che **soffriranno** poco se **dovesse** decollare il costo del denaro.
- “Se i tassi **rimangono** fermi, **è possibile immaginare** un'altra crescita delle Borse nei prossimi due anni. Se invece **cominciano** a salire, tutto **torna** in discussione.



# ...with the standard syntax of the Italian translations

- mantiene la propria moneta, il ringgit, rigidamente legata al dollaro. Se il dollaro si **indebolirà** nel 2002, anche le monete asiatiche **perderanno** terreno.
- E un pericolo non certo da sottovalutare è che, se l'economia non si **riprenderà** al più presto, questa fascia di mercato **diventerà** sempre più esigua.
- Se l'economia statunitense **rallenterà**, i contraccolpi si faranno sentire in tutta la **regione**,





# Discourse markers

- Discourse markers are unique to each language, so they cannot be studied by translating them more or less literally from one language to another
- Italian discourse markers were investigated by comparing keyword lists of reports and articles but bearing in mind the categories of markers identified for English (for example Hyland 2005)
- Data for some interactional discourse markers - boosters and hedges - are provided



Boosters	Comp. Italian Corpus	Parallel Italian Corpus
sempre	0.92	<b>1.08</b>
certo	0.52	0.24
anzi	0.43	0.05
in realtà	0.49	0.21
infatti	1.19	0.46
vero	0.38	0.28
ben	0.54	0.38
molto	1.32	1.16
davvero	0.25	0.21
spiega	0.29	0.07
record	0.18	0.17
più	5.89	<b>7.36</b>



Hedges	Comp.Italian Corpus	Parallel Italian Corpus
po'	0.38	0.14
qualche	0.60	0.35
sostiene	0.34	0.29
sembra	0.54	<b>0.62</b>
forse	0.20	<b>0.40</b>
probabile	0.47	0.23
circa	1.08	0.69



# A case study of discourse markers: *insomma*

LH		RH
protocolli per email e media-playback da Microsoft, suo rivale negli smartphone.	<b>Insomma,</b>	la società è determinata a restare la numero uno: e nessun tabù è più
Una crescita più rapida nei Paesi emergenti,	<b>insomma,</b>	dovrebbe accrescere anche quella in Occidente.
per il momento, di rimpiazzare l'ingombrante padre sulla poltrona di comando.	<b>Insomma,</b>	in caso di abbandono del fondatore (oggi 74enne),



# A concordance of *insomma* in the comparable corpus

Oppure del motore a vapore e di quello a scoppio. **Insomma**, sta per iniziare un nuovo ciclo economico positivo. Una crescita traina i tassi bassi e gli affitti alti stimolano le compravendite. L'acquirente, **insomma**, ha un potere d'acquisto maggiore. e propria bolla speculativa. Prezzi, andamento lento. **Insomma**, la dinamica dei prezzi in questi ultimi cinque anni è stata differente. per aumentarne la motivazione e la responsabilità. L'idea **insomma** è quella di andare avanti, ma premiando il merito e non le rendite la fabbrica dei fondi di Banca Intesa. Che di rialzo si tratti, **insomma**, non ci sono dubbi. Ottimisti e pessimisti, però, spiano con della siccità sui prodotti alimentari. Una certa impennata dell'inflazione, **insomma**, c'è stata, ma concentrata nei primi mesi alle norme che rendono rigido e sclerotico l'apparato produttivo. C'è, **insomma**, che la possibilità che l'Italia economica se la possa cavare,



# Conclusions

- MD analysis suggests that English economics articles exhibit features that are typical of involved text production, narrative discourse and overt expression of argumentation
- These features are confirmed by the study of polarity and primary tense, which are not as marked in original Italian articles
- Polarity, primary tense and discourse markers point to a tendency of translated Italian articles to reproduce features that are typical of the source texts or a less flexible use of language.



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# Thank you!

Contact...

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