

Conveying Strategy Knowledge Using Visualization vs. Text: Empirical Evidence from Asia and Europe

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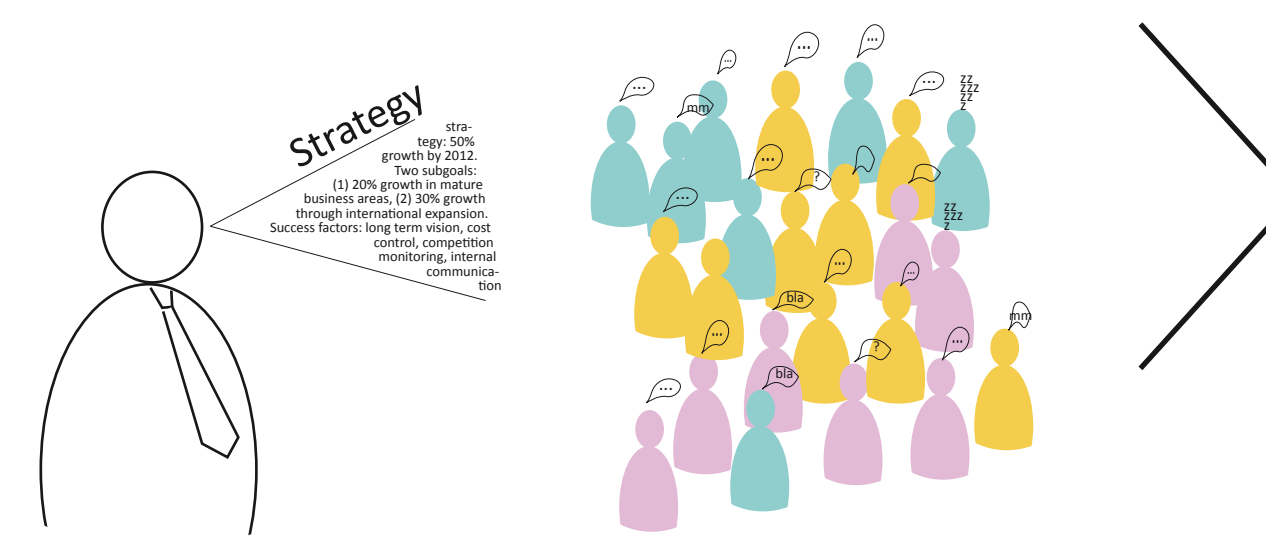
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Research question and design

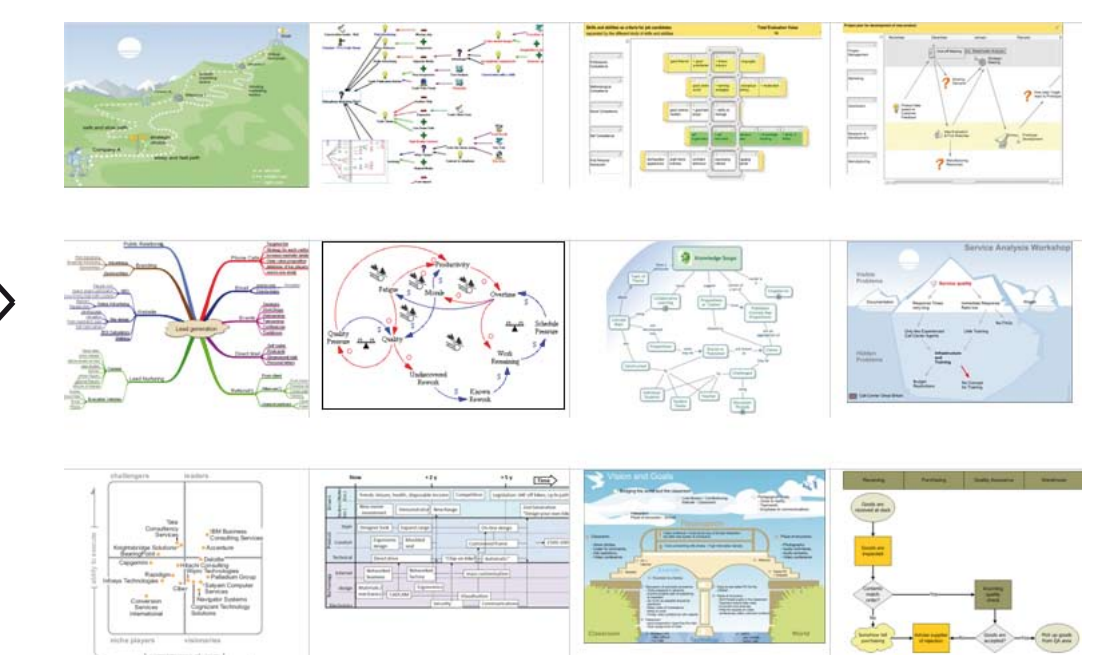
Problem: strategy knowledge communication, across-cultures
Research question: Can visual representation improve the reception of strategic knowledge compared to text?
 And is this relationship moderated by culture?
Method: experiment (3X2): knowledge representation X culture
Sample: 118* graduate students (in executive masters) from Europe and East Asia
Results: (1) knowledge visualization is superior to text for knowledge reception (2) independently of culture
 (3) subjects underestimate the benefits of visual representations of information (4) in both cultures
Implications for theory: Hidden benefits of visualization for knowledge work
for practice: Communicating knowledge with visual representations effective but undervalued

*In progress

Problem
Strategy knowledge communication across cultures



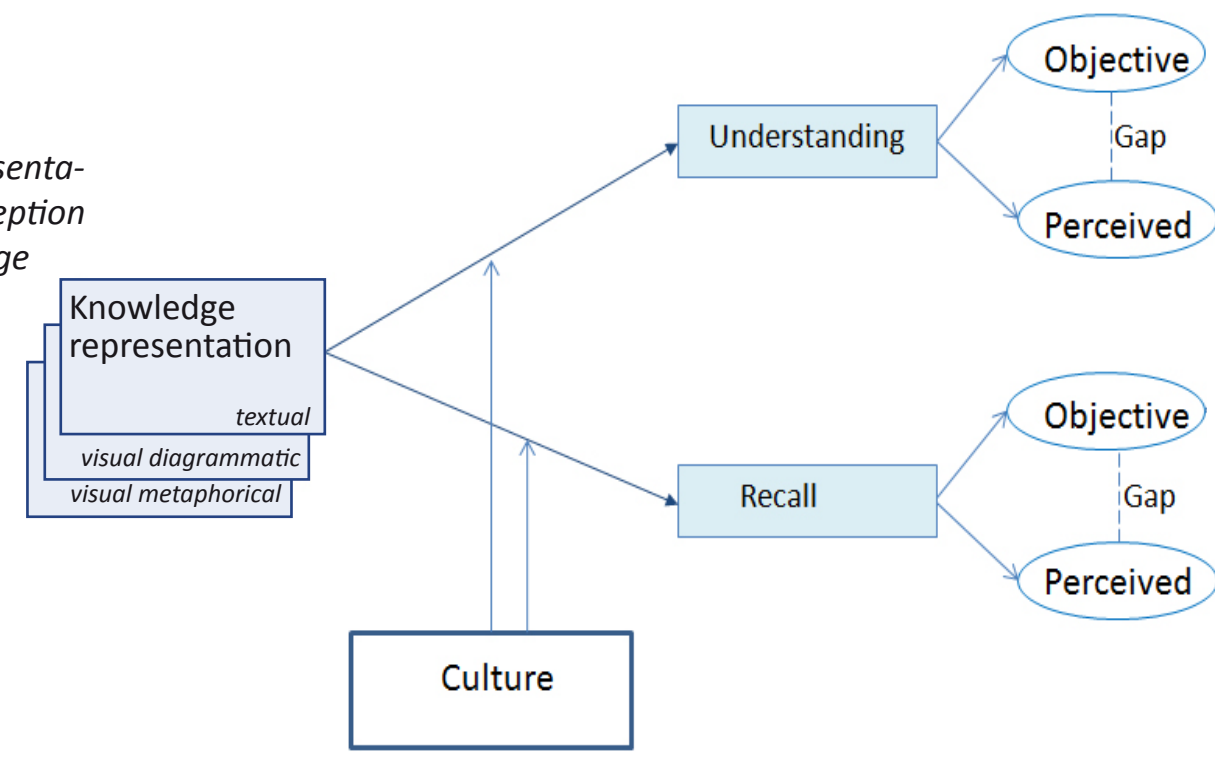
Solution
Knowledge visualization?



[Bresciani, S., Eppler, M.J. (2010) Choosing Knowledge Visualizations to Augment Cognition: the Managers' View in: IEEE Proceedings of the International Conference on Information Visualization, IV10, London, 2010, Best paper award]

Research Questions and Model

RQ: Can visual representation improve the reception of strategic knowledge compared to text?



RQ: Is this relationship moderated by culture?

RQ: Is the perception of the representation effectiveness aligned with its objective reception? (= do people know?)

Research design

Experiment (3X2)

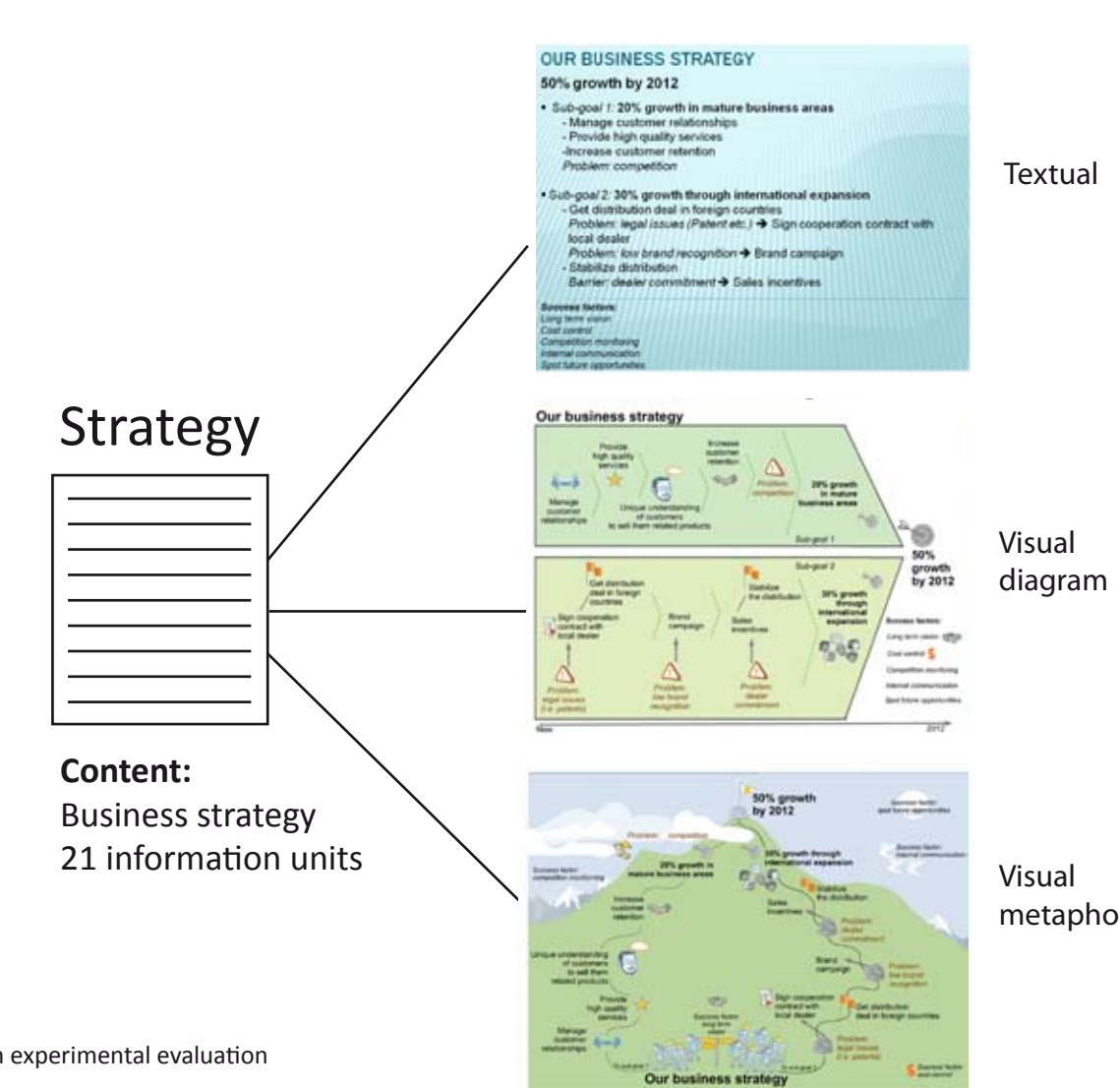
3 Representations of strategic knowledge [Burkhard, 05; Platts, 04]

Sample (in progress): N= 118
 87 from Singapore, 37 from Switzerland
 Mean age: 27, years of work experience: 5.3;
 gender: 60% males

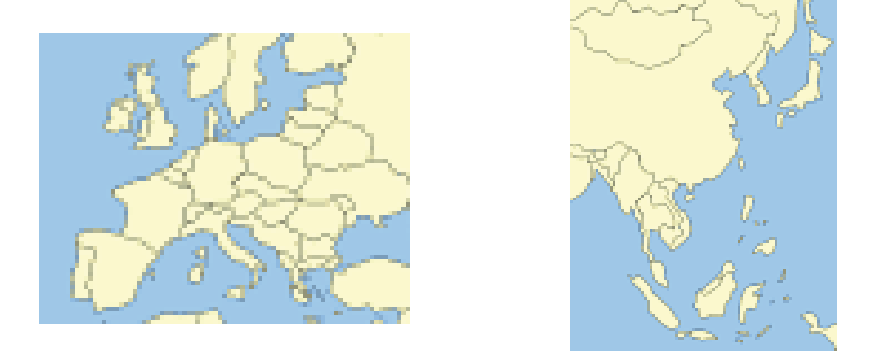
[Kernbach, S., Eppler, M.J. (2010) The use of visualization in the communication of business strategies: An experimental evaluation in: IEEE Proceedings of the International Conference on Information Visualization, IV10, London, 2010]

Strategy

Content:
Business strategy
21 information units

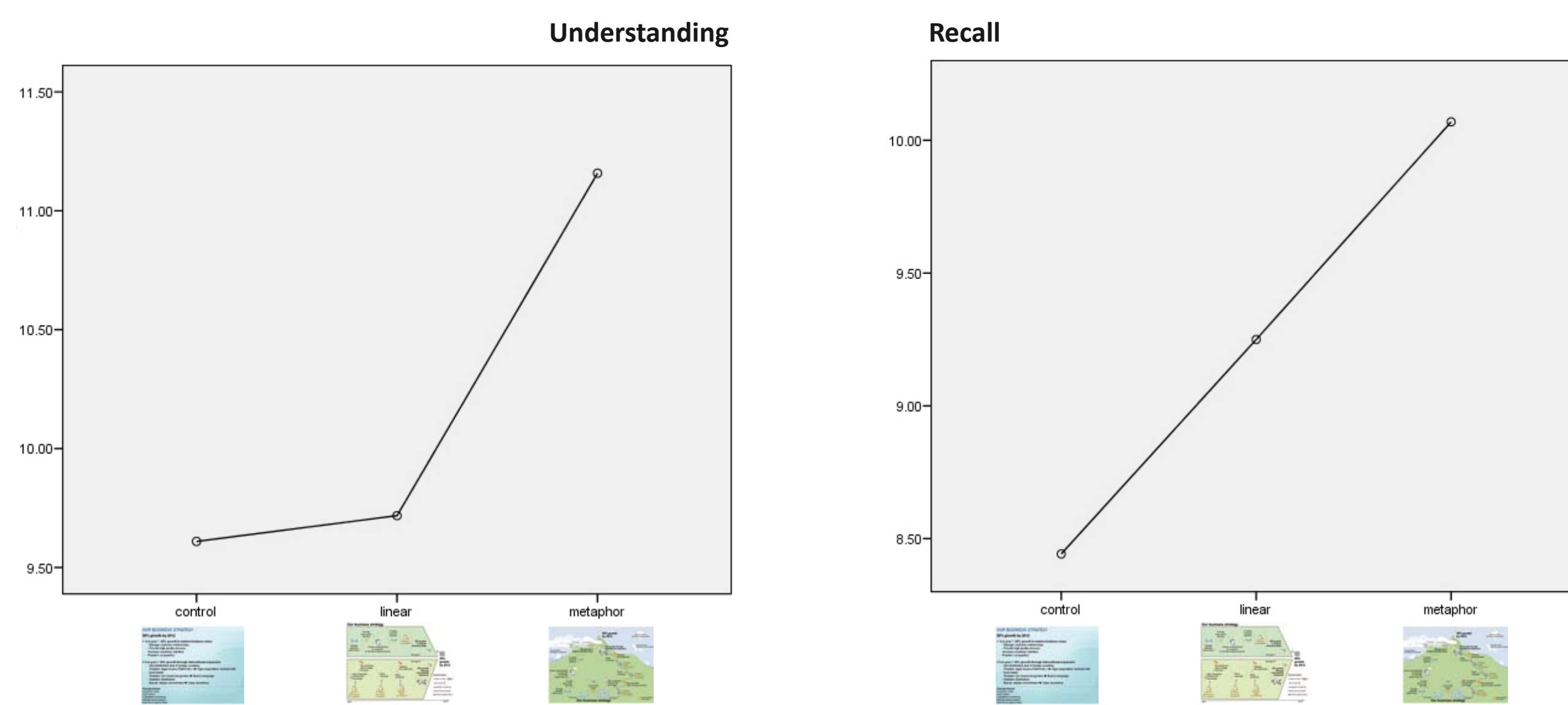


2 cultures: Europe and East Asia [Nisbett, 05; Hofstede, 01]

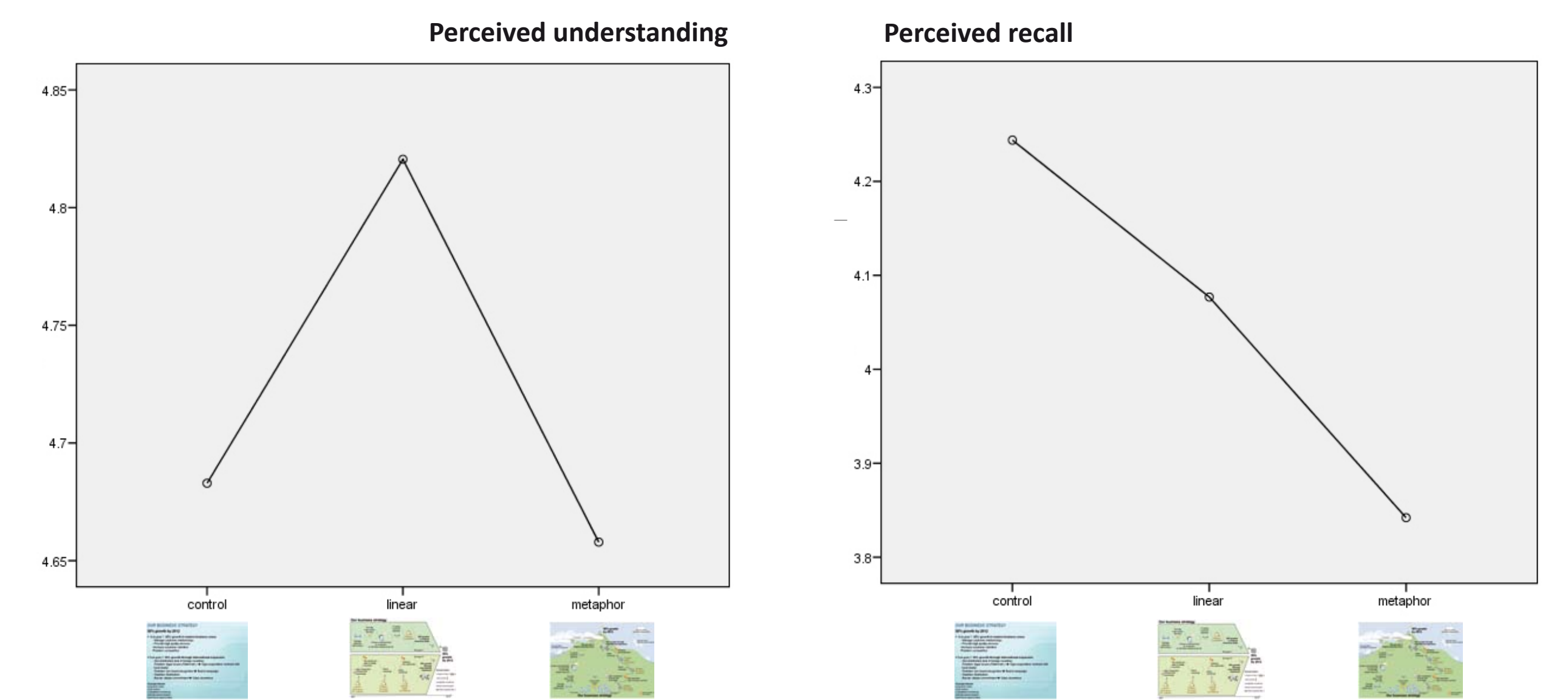


Results

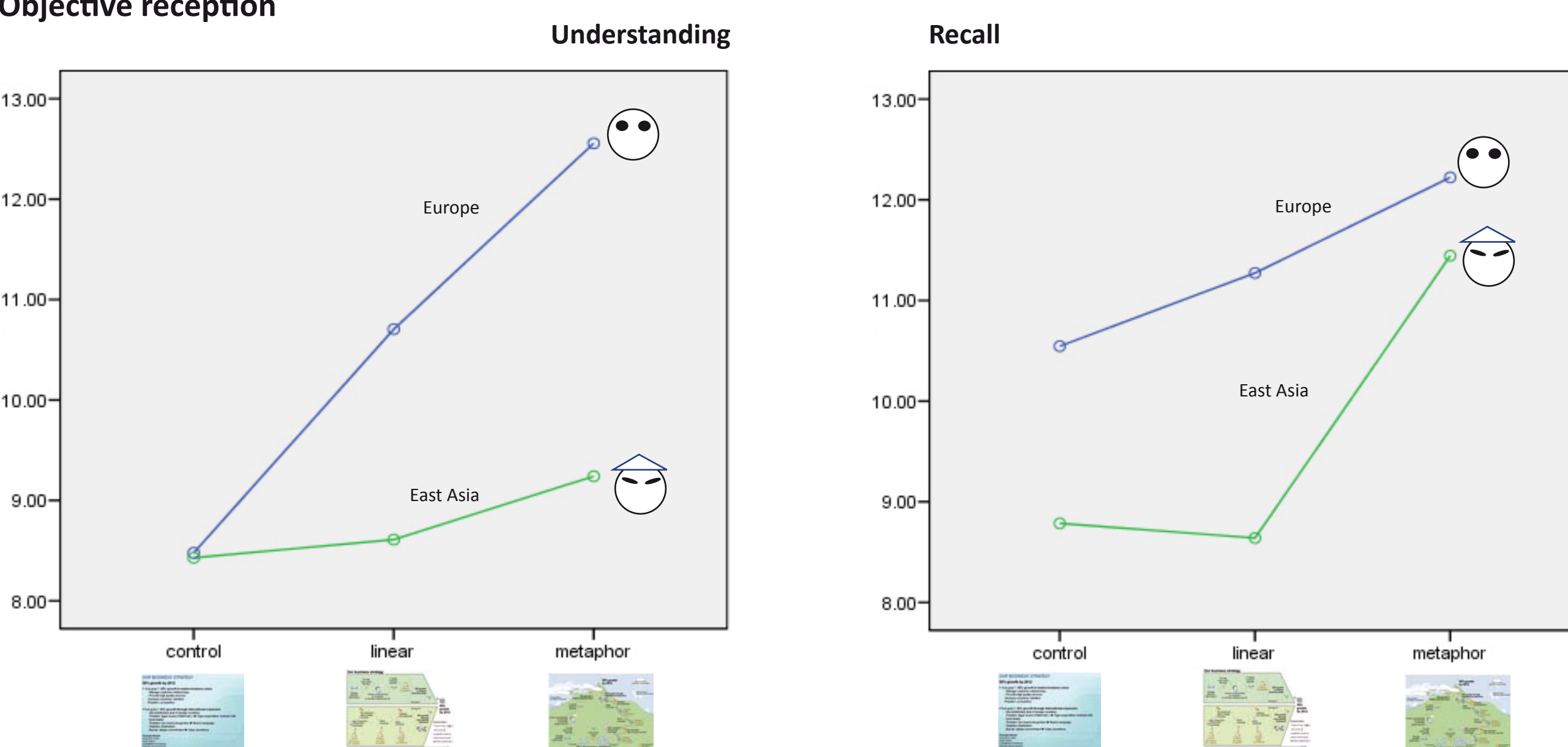
Objective reception, all cultures



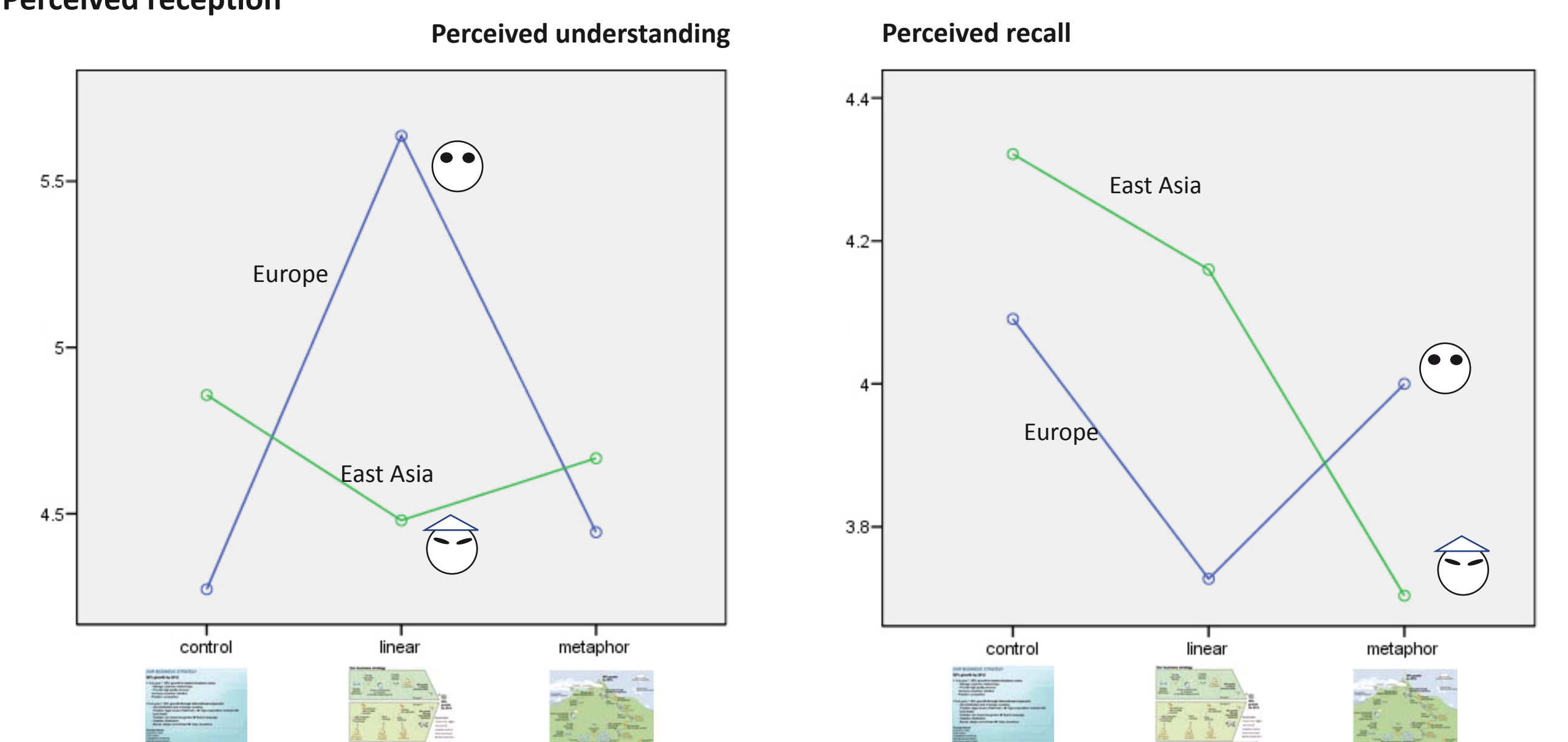
Perceived reception, all cultures



Objective reception



Perceived reception



Implications

Implications

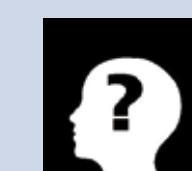
- 1 | Visual representation of information **objectively increases understanding and recall** both in Europe and East Asia
- 2 | There are **cultural differences** in the reception of visualization as predicted by theory,
- 3 | There are **hidden benefits** of visual representation for knowledge work: subjects constantly underestimate the benefits of visualization

So what?

Knowledge visualization is better than text, never worse



Subjects are not aware (underestimation)



Future >>

- Bigger sample (now N= 220) ✓
- More cultures (India?) 🇮🇳
- Interactive / collaborative 🤖
- Field study in a real organization 🏭
- Why visualization is less beneficial for Asians? (i.e. training)

Contacts

Interested in the final results?
Follow us online:

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Interested in collaborations?

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