

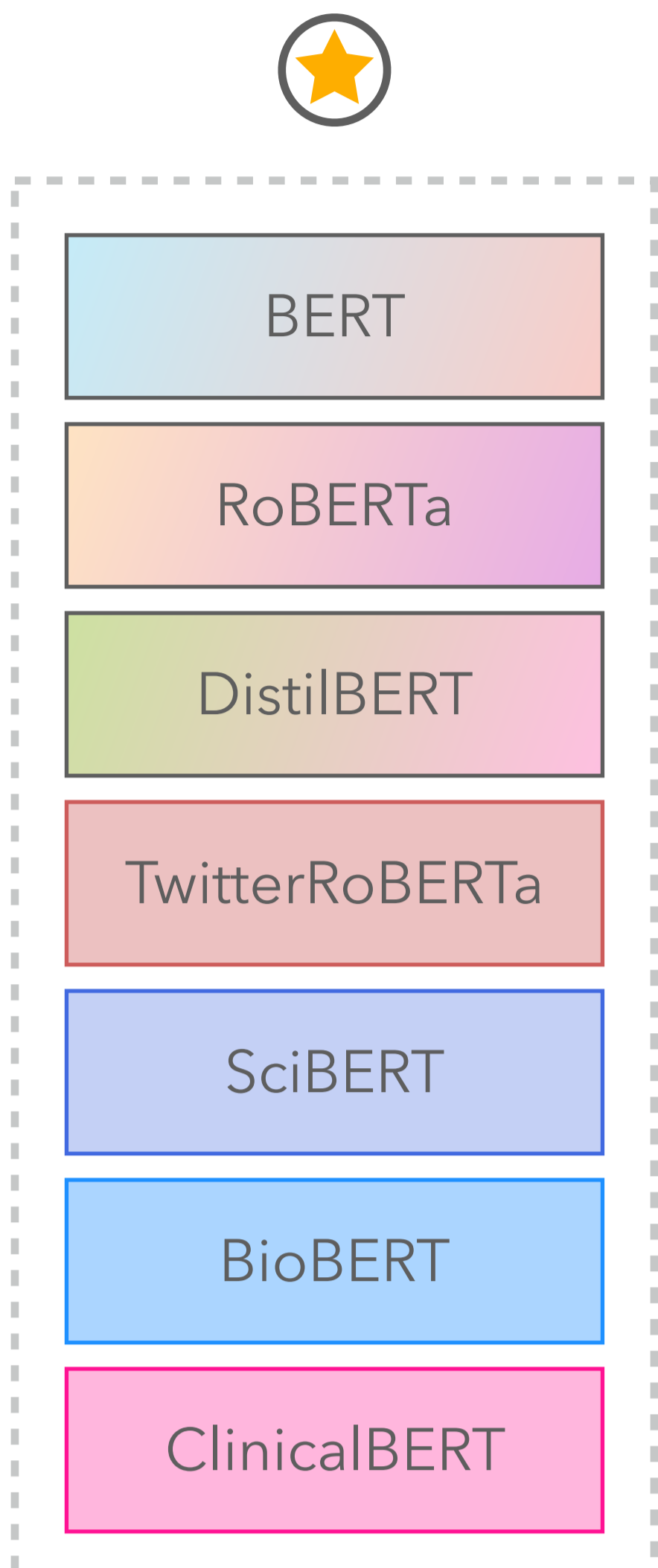
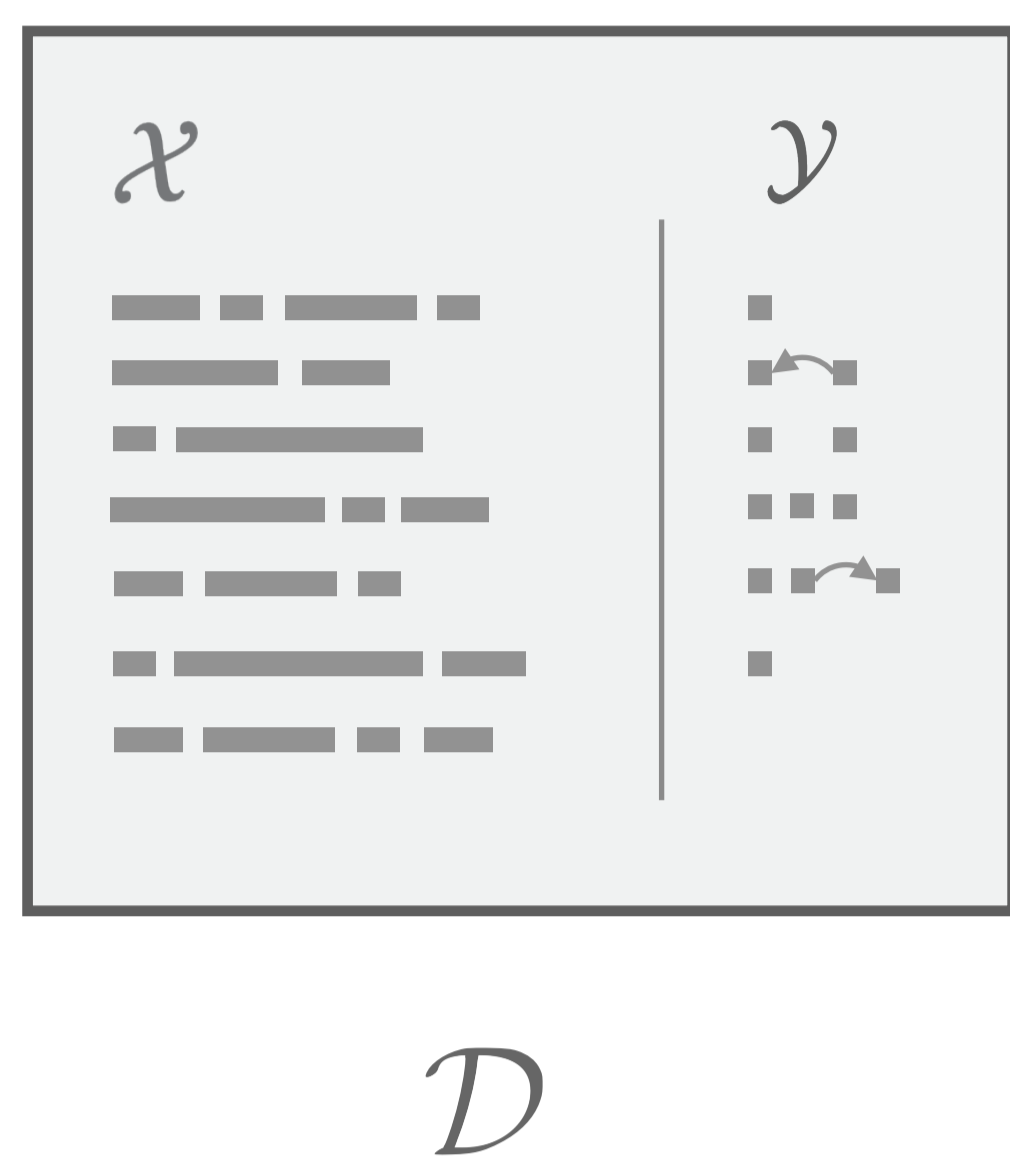
# Evidence > Intuition: Transferability Estimation for Encoder Selection

Elisa Bassignana, Max Müller-Eberstein, Mike Zhang and Barbara Plank

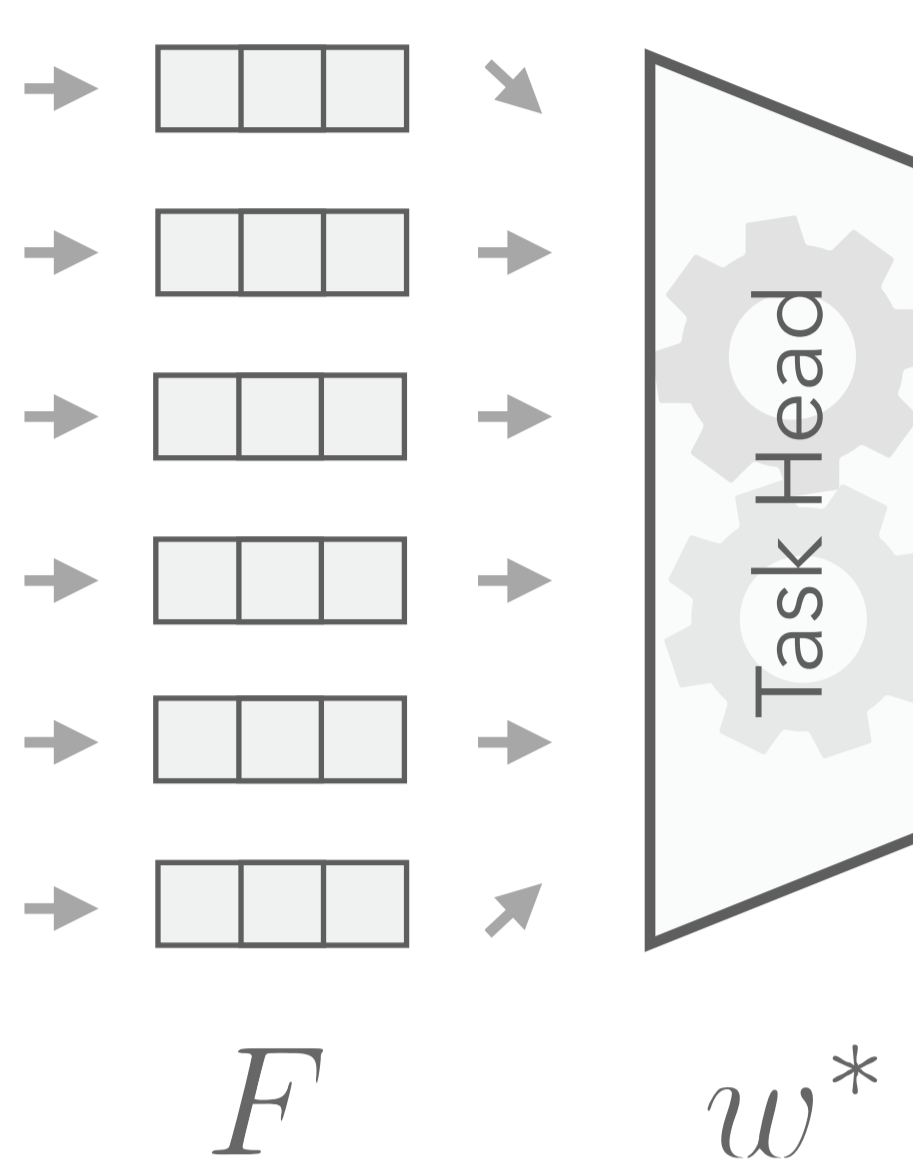
In NLP setups, there are many variables beyond **encoder choice**

Head Tuning vs Full Fine-tuning

General vs Domain



Mean vs [CLS]



How can we identify the best encoder for an NLP task before training?

Classification vs Structured Prediction

how accurate is the current SOTA, i.e. **practitioner intuition**?

estimate **evidence** of task-specific information within frozen encoder representations

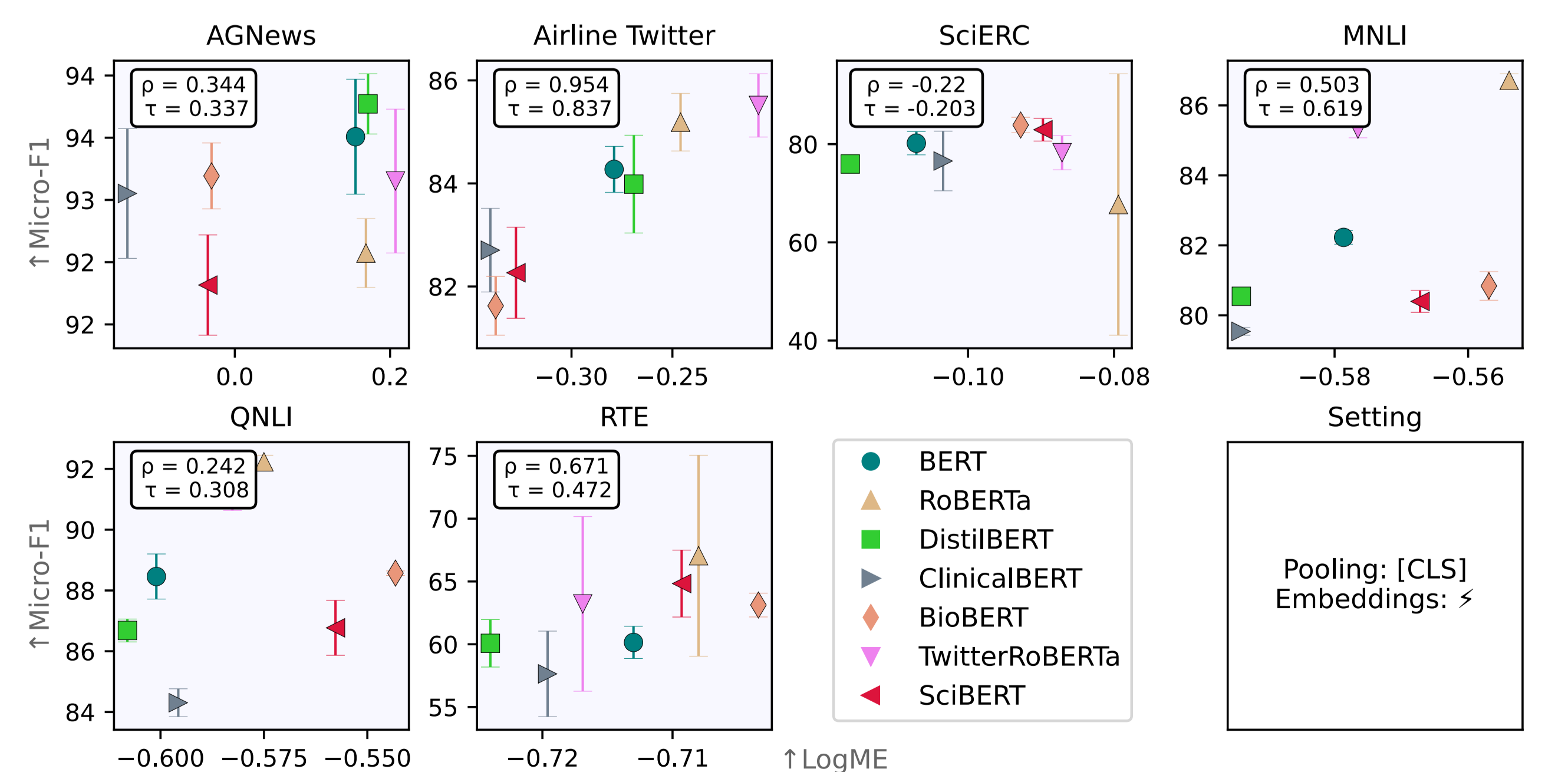
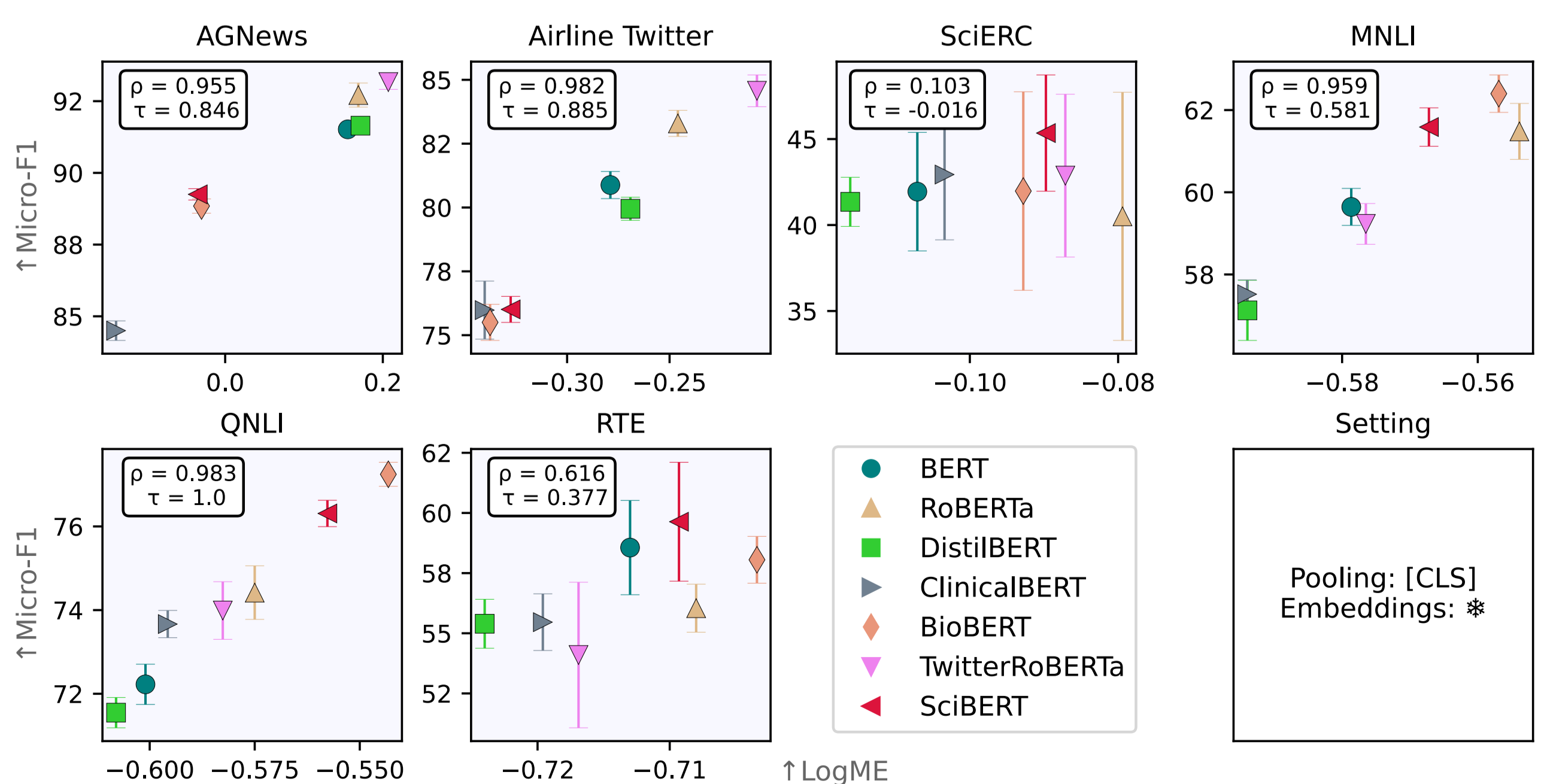
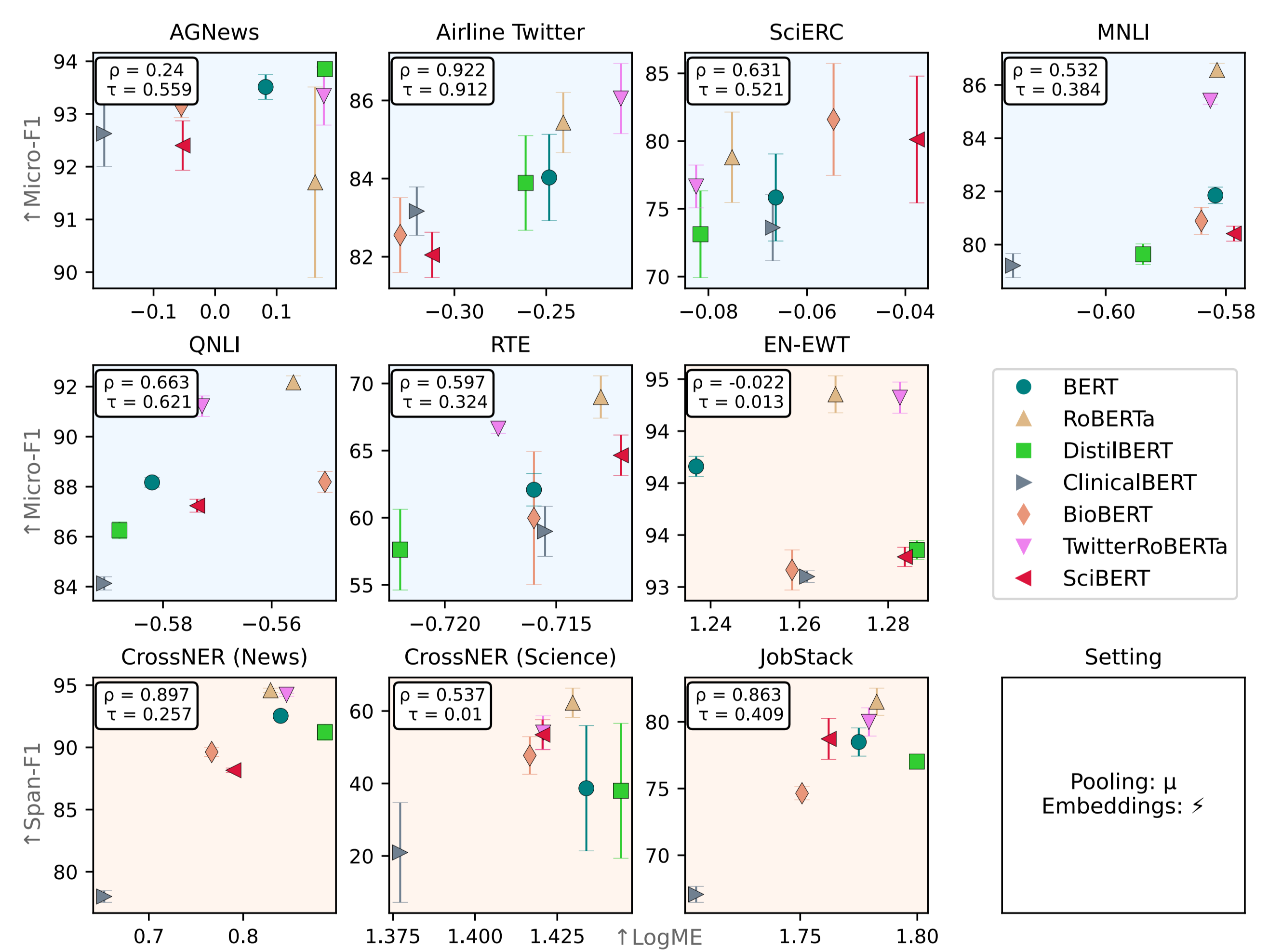
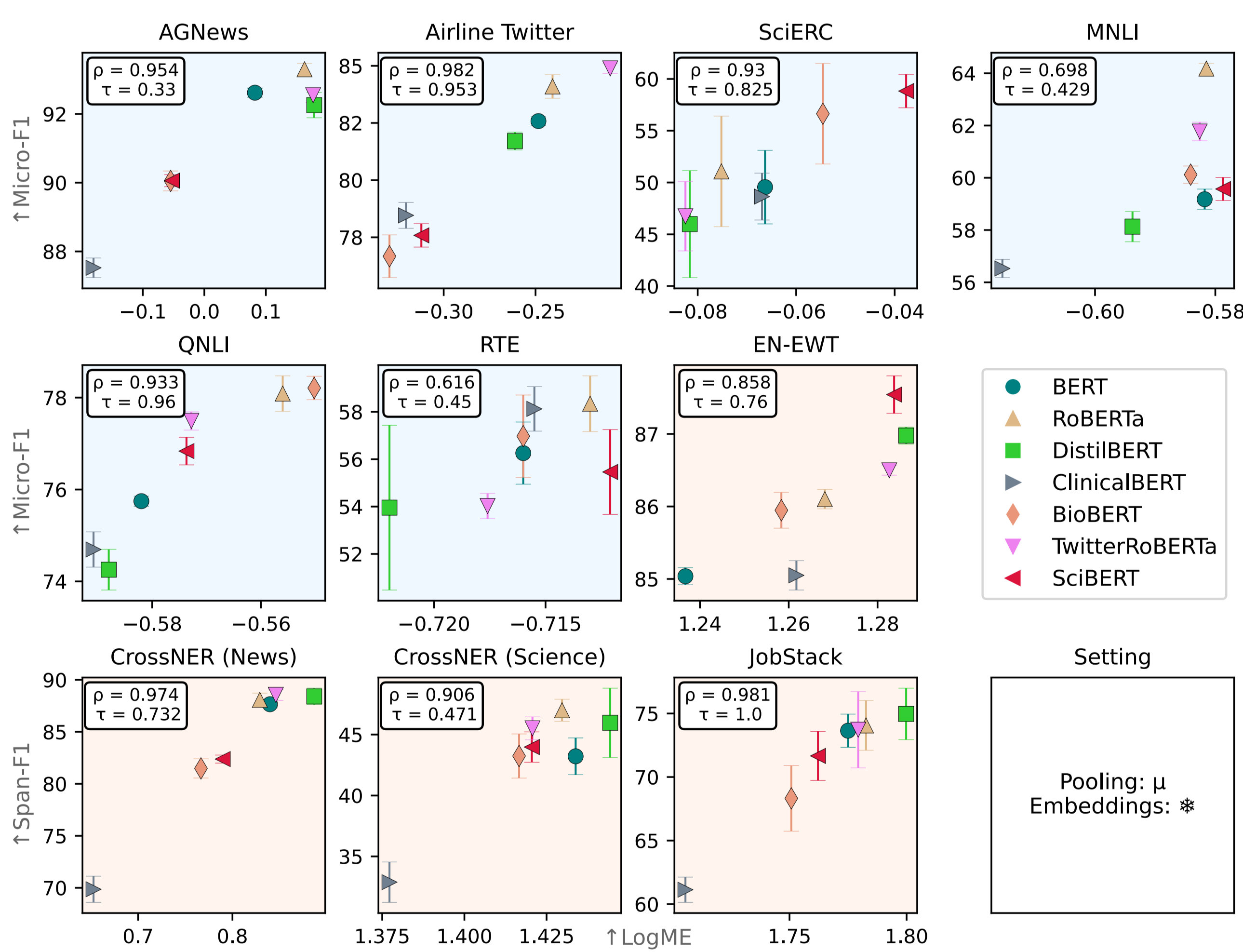
**LOGME**  
(You et al., 2021)

$$p(y|F) = \int p(y|F, w)p(w)dw$$

**HUMANS**

- Intuitive Cases
- No experts across all setups
- 3x more negative correlations

LogME correlates positively in **94% of all setups** and selects the better encoder **71% of the time** in 20/32 setups.



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