

# Oracle-RLAIF Cross-Lingual Generalization from English to Multilingual Preference Data

Assignee Research

May 30, 2026

## Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: How does Oracle-RLAIF maintain cross-lingual generalization capabilities on RxR-CE when scaling from English-only pretraining to multilingual human preference data. To democratize large language models (LLMs) to most natural languages, it is imperative to make these models capable of understanding and generating texts in many languages, in particular low-resource ones. While recent multilingual LLMs demonstrate remarkable performance in. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 2.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: LLMs Beyond English: Scaling the Multilingual Capability of LLMs with Cross-Lingual Feedback. Research question: How does Oracle-RLAIF maintain cross-lingual generalization capabilities on RxR-CE when scaling from English-only pretraining to multilingual human preference data?.

## 2 Methodology

Systematic literature search across multiple databases yielded 13 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 2.5/10.

### **3 Results**

13 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 2.5/10.

### **4 Limitations**

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

### **References**

- <http://arxiv.org/abs/2406.01771v1>
- <http://arxiv.org/abs/2310.10378v5>
- <http://arxiv.org/abs/2407.14477v4>