Computational Linguistics and Mayan Languages

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    - Ergative vs. nominative languages
  - All of the available data in the language (uses by native speakers/writers in context)

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- Increased population capable of creating accessible knowledge, but, because of costs, left this still quite limited

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  - Speakers of disadvantaged languages remained handicapped in participation in national and global debates about the future

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  - Computer-assisted literacy training

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  - 8: “The Information Society should be founded on and stimulate respect for cultural identity, cultural and linguistic diversity, traditions and religions, and foster dialogue among cultures and civilizations. The promotion, affirmation and preservation of diverse cultural identities and languages ... will further enrich the Information Society. ”

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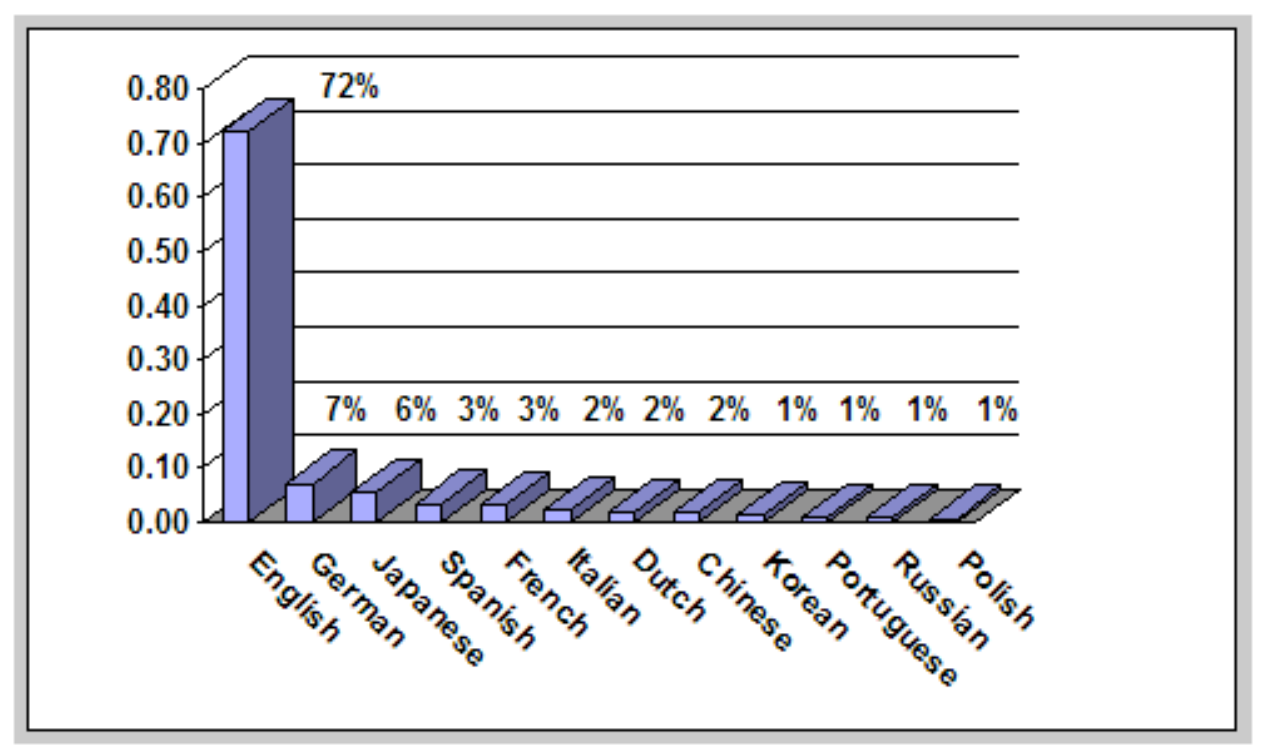

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- Quechua: 2,102 articles
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- Programming and markup languages are based on English. (Paolillo)

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  - Languages already marginalized within their own countries

Causes of the LDD

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- Lack of users

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- Linguistic imperialism, chauvinism

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- Create documents in and tools for under-represented languages, including mediating interpreters

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- Translation could bridge the divide by making more documents available in disadvantaged languages and giving speakers/writers of these languages a voice.

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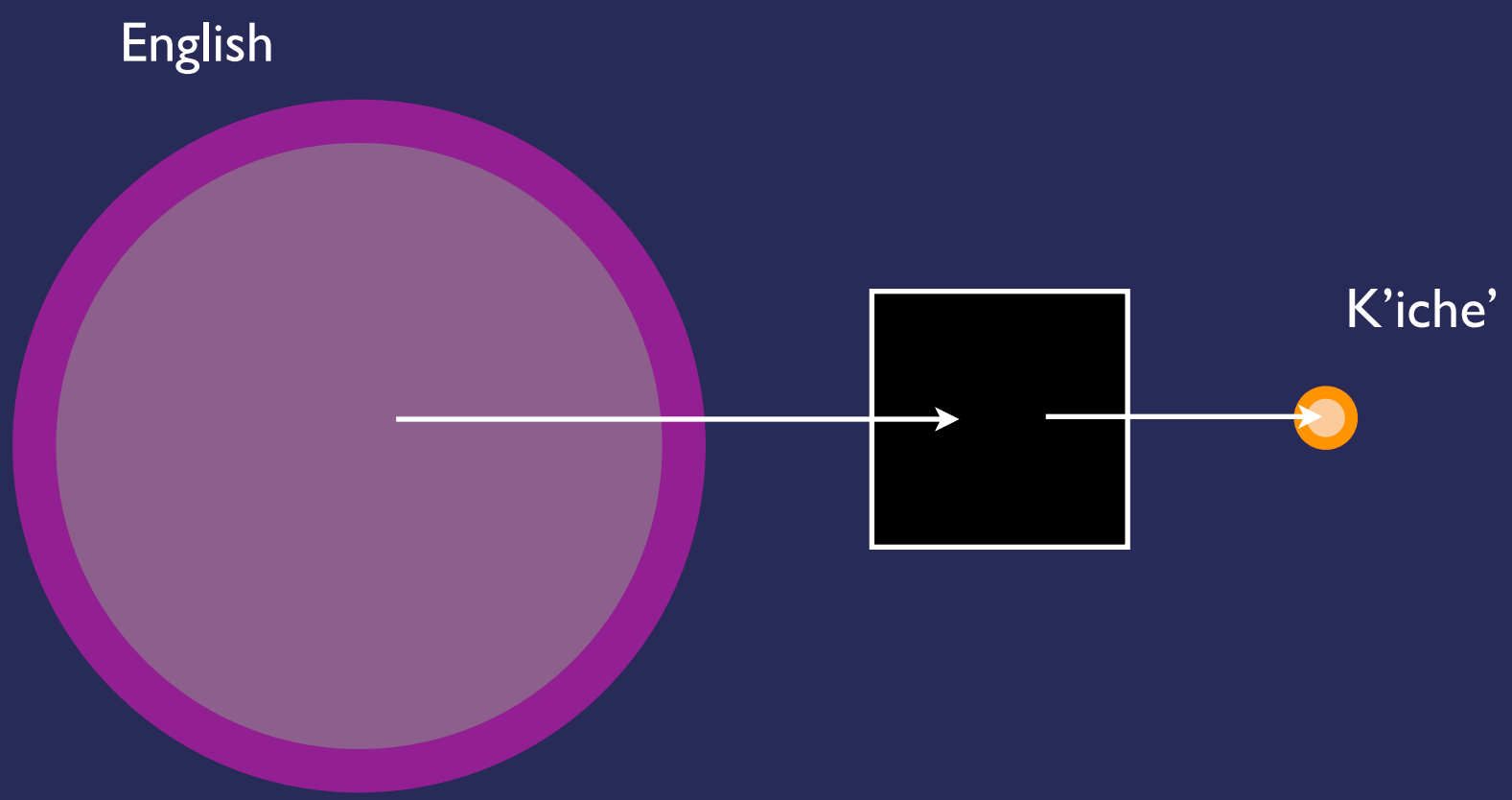

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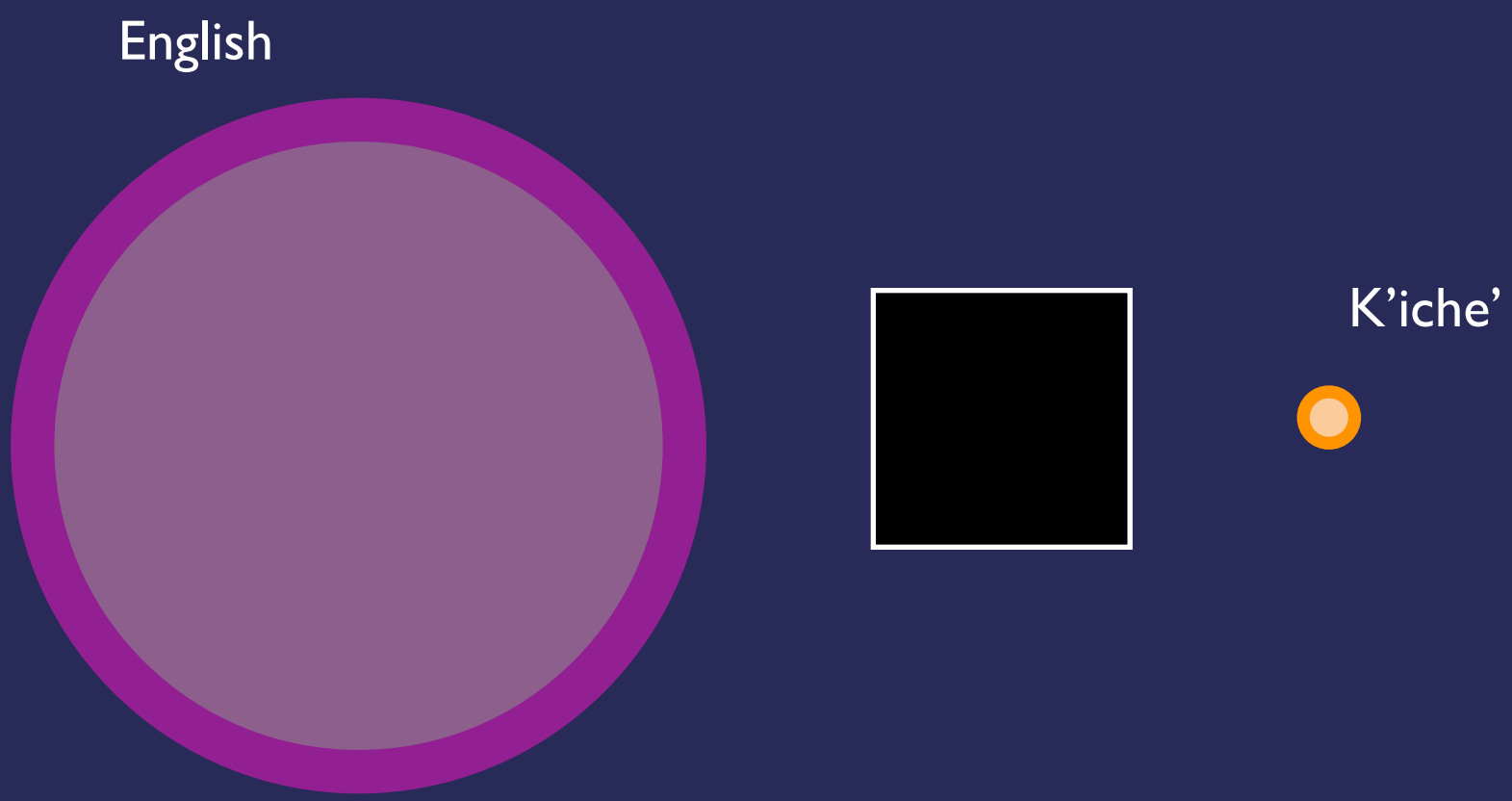

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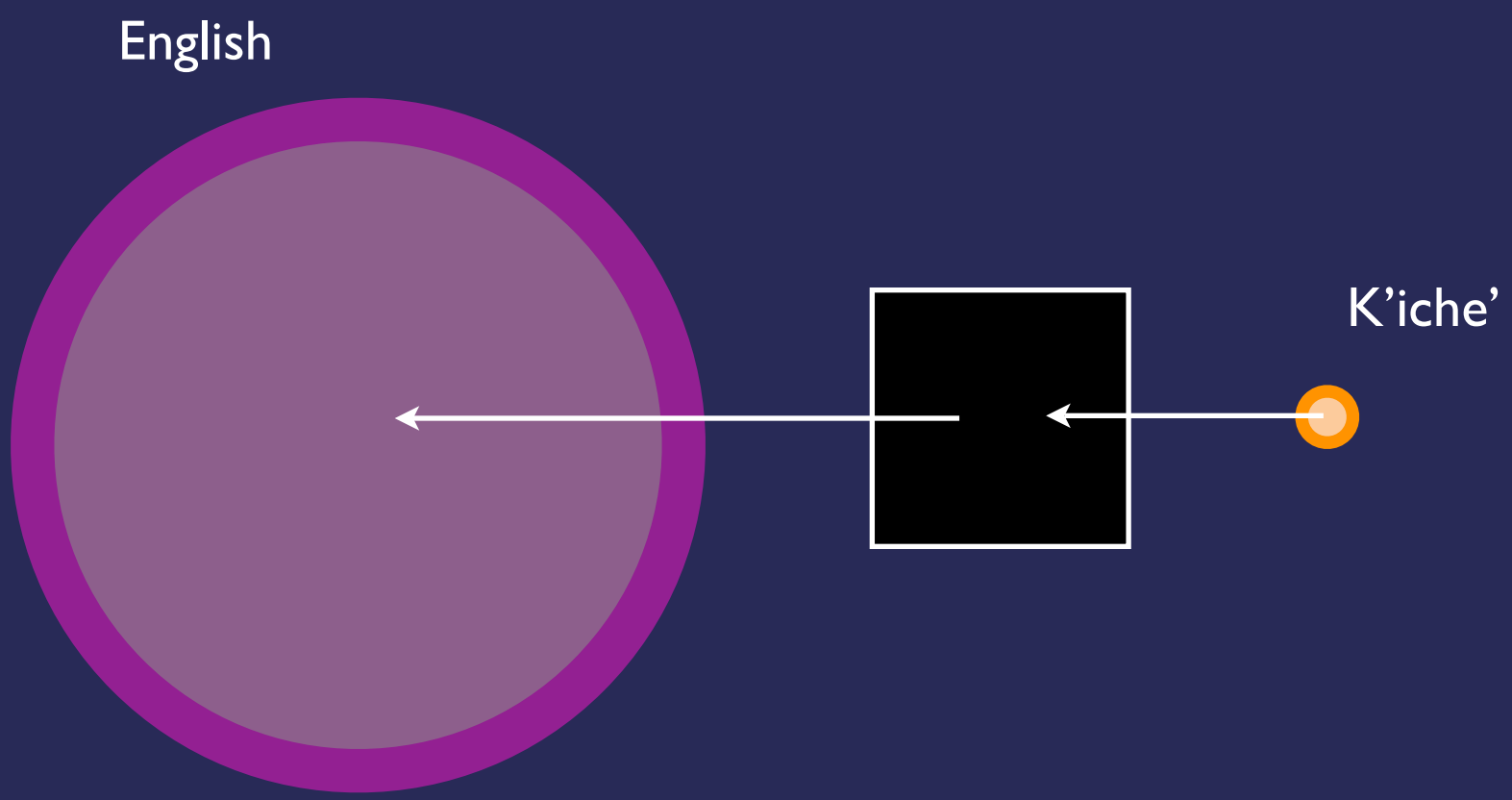

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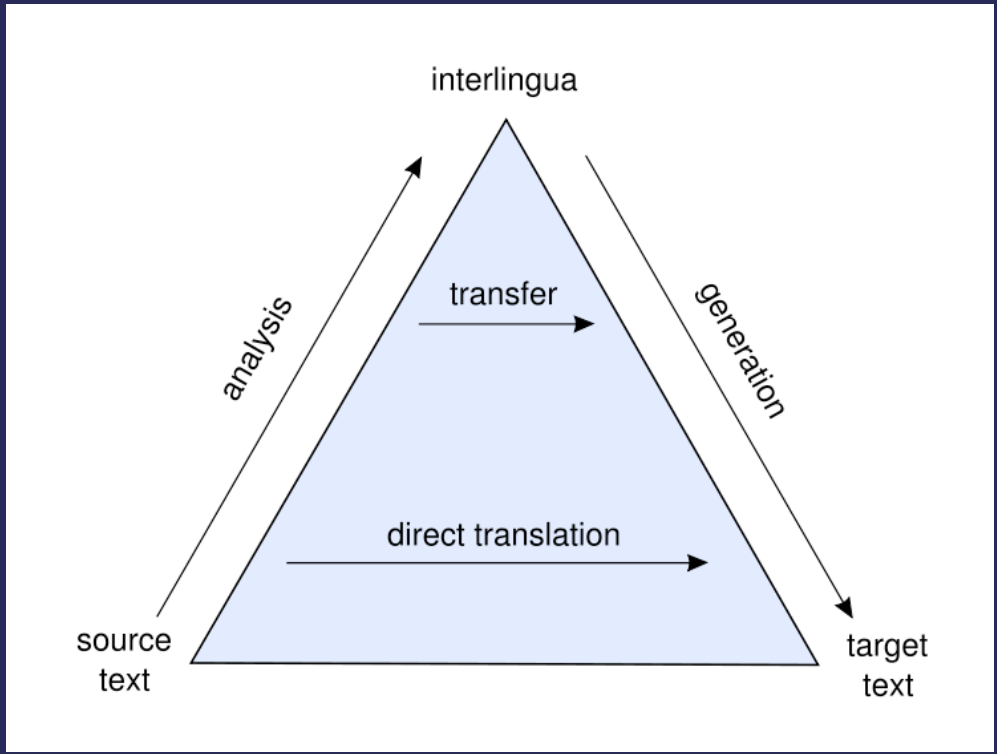

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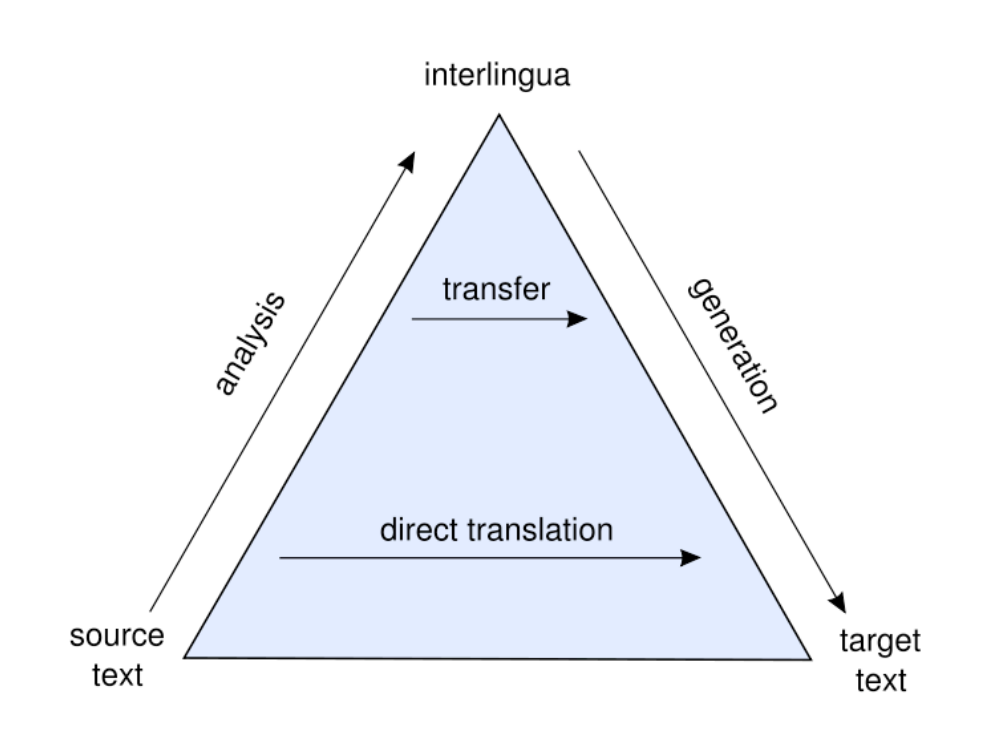

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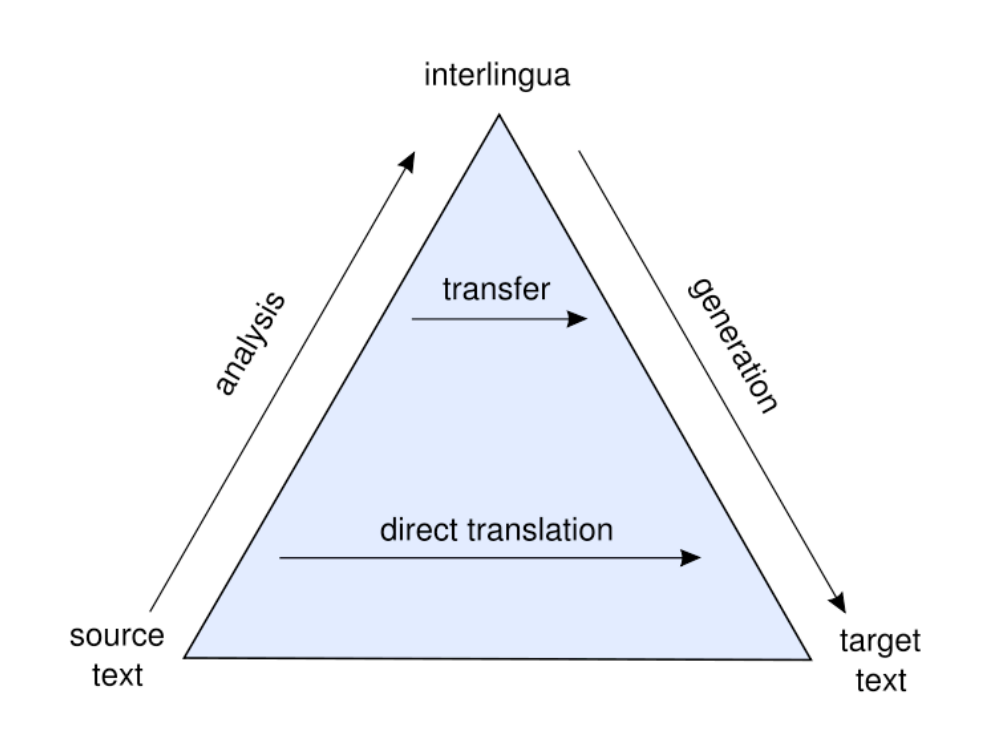

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- Toward appropriate and efficient forms of collaboration between people and machines (Kay)

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- For the majority of languages, we only have at best dictionaries and a few other resources

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- There are now some bilingual schools.

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- Small number of online resources, a few monolingual and bilingual texts, bilingual dictionaries, teaching materials.

From *Loq'aläj täq Mayab' kunab'äl* (*Mayan Medicine*)

ANIX

UPETIK UB'ANTAJIK

We q'ayes kunab'äl ri', man kk'iy ta ulöq utukel. Je wa' kpetik: ri rulewal are täq le xoral, le uxäq laj täq xerxob' uwach.

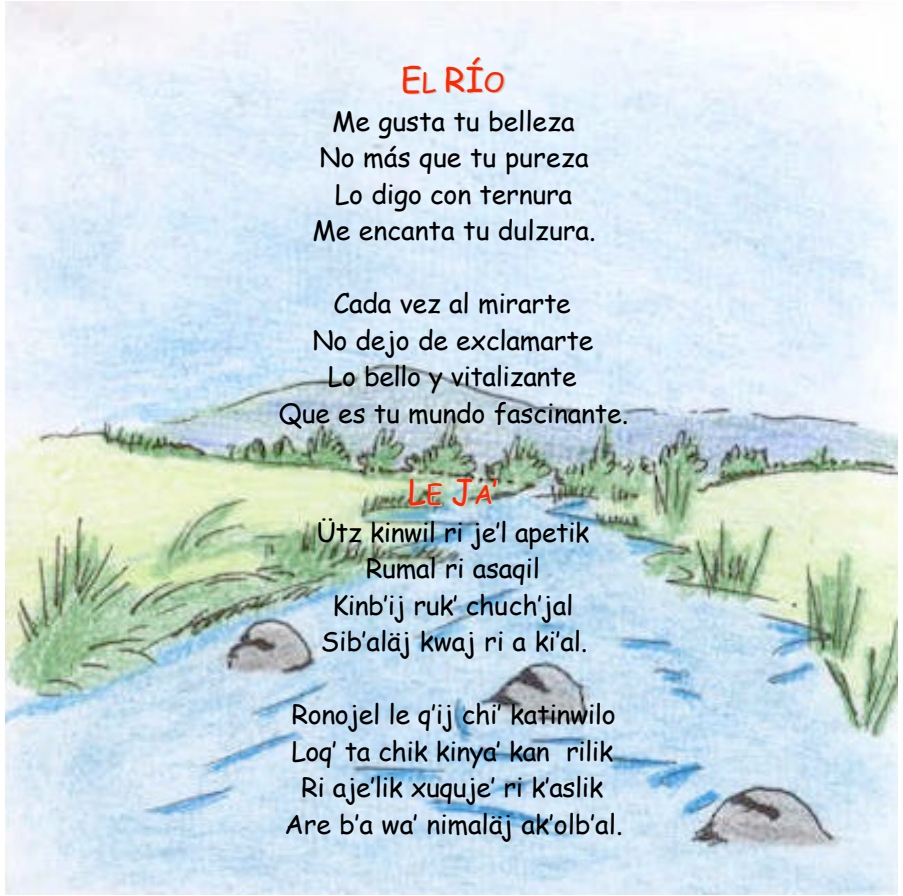
RI KUKUNAJ

- Pamaj.
- Ib'och'.
- Kuk'iysaj upam le tu',

RI UKOJIK

- **Chi rech le pamaj:** Kpoq'owisäx jun laj jub'utzaj pa jun xa'r k'a te k'u ri' ktzaq jub'iq' tzam ruk', ktijow jun qumb'äl ronojel nïm aq'ab' b'elejeb' q'ij ktijowik.
- **Chi rech le ib'och':** Kpoq'owisäx jun laj jub'utzaj pa jun xa'r, ktijow xäq pa chi kech kajb'äl, jun qumb'äl ktijowik ronojel q'ij, lajuj q'ij ktaqexïk.
- **Chi rech upam le tu':** Ktijowik are chi' ke'l ulöq ri ixöq pa tuj, kutïj jun qumb'äl chi rech pa waq'ib' q'ij.

From *Poemas infantiles*



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  - Ways to interact with speakers of other languages

L^3 and Mayan languages: short-term goals

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- Morphological parsers and generators for four largest languages (K'iche', Kaqchikel, Mam, Q'eqchi')

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- Morphological parsers and generators for four largest languages (K'iche', Kaqchikel, Mam, Q'eqchi')
- Translation of simple sentences in a narrow content domain among these languages.

Thank you!
¡Maltyox!
¡Matyox!
¡Chjonta!