Path salience in motion events from verbal and visual languages

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Languages differ in the way they convey paths, encoded in either the verb...

Verb-framed (V-languages)
(Spanish, French, Japanese, Korean, Hebrew)

Because S-languages draw focus to paths, they increase their salience in motion events.

This difference has been shown to influence the conceptualization and narration of motion events (2).

Tversky and Chow (2009) suggested such a difference in participants’ ratings of how “active” comic panels were from different cultures (3).

...or a “satellite” (1):

Satellite-framed (S-languages)
(English, German, Dutch, Mandarin)

Motion, Path
Verb
sair (exit)
de la casa (of the house)
comiendo (running)

Motion, Manner
Verb
fue

go, run

Path to goals, and both more than sources. This aligns with findings that paths’ endpoints are more salient than starting points in verbal language, perception, and attention (4).

Overall, trajectories appeared more than goals, and both more than sources. This aligns with findings that paths’ endpoints are more salient than starting points in verbal language, perception, and attention (4).

Also, trajectories and goals appeared more in S- than V-languages, suggesting an influence of authors’ spoken languages.

Despite our finding of differences between comic panels on the basis of spoken language typology, we found no differences based on the comics’ continent of origin. However, some interesting results did appear...

Chinese books’ depictions of paths far outnumbered all other types, which may support Mandarin as outside the binary split of S- and V-language types (5).

Also, Original English Language (OEL) manga looked more like their American peers than the manga that they imitate.

We therefore asked: would this difference arise in the paths that people draw, particularly in visual narratives?

We thus coded the components of paths directly in the panels of 35 comics from around the world.

Comic type
Language

<table>
<thead>
<tr>
<th>Language Type</th>
<th>Total pages</th>
<th>Total panels</th>
<th>Panels/page</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Manga</td>
<td>OEL (Japanese)</td>
<td>137</td>
<td>769</td>
</tr>
<tr>
<td>Chinese manga</td>
<td>Mandarin</td>
<td>115</td>
<td>772</td>
</tr>
<tr>
<td>French manga</td>
<td>French</td>
<td>100</td>
<td>749</td>
</tr>
<tr>
<td>Korean manga</td>
<td>Korean</td>
<td>58</td>
<td>579</td>
</tr>
<tr>
<td>TOTAL</td>
<td>514</td>
<td>4,763</td>
<td>9.86</td>
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</tbody>
</table>

These findings support that a speaker’s conceptualization of paths from their spoken language may influence the graphic depiction of paths they draw.

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REFERENCES
(1) Tversky & Chow, 2009
(2) Spivey, 2005
(3) Drake, 2005
(4) Spivey, 2005
(5) Heider, 1958