

Effect of translation strategies in reading manga: A reception experiment

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1. Reading comics and manga readers

Comics are usually defined by two characteristics: the fact that images are organized in a spatial sequence (see Metz 1974 for an original argumentation on the importance of sequentiality in comic books, McCloud 1993 for a revision or for a more recent approach on visual linguistics Cohn 2012), and the fact that there is often a combination of text and image. Harvey 2008 defends for example the incorporation of verbal content as an “essential characteristics of comics” (25). Groensteen among others has argued that this is not a necessary fact and therefore not an intrinsic characteristic of comic books and provides examples to support these claims (1999: 18). There is certainly a theoretical evolution on the definition of the essential elements of comic (2012), and consequently of manga as a type of comic. While we accept that written language is not a necessary factor for a collection of images to become a comic book, we believe that language plays a very important role in the shaping of the story.

Some quantitative studies have looked into the role of writing in manga. Unser-Schutz (2011) approaches the intersection between the visual and the linguistic by analysing a corpus composed of four top-selling shojo manga and four top-selling shonen manga in order to isolate the different text types and looking into the role of handwritten lines. Rommens (2000) believes that manga present less extradiegetic voices (text types alien to the story) and that encourages the visual sequencing, so “Manga speed-reading is made possible through the elimination of textual information” (2000). This claim contrasts to a certain extent with Allen and Ingulsrud’s results of the experiment on reading patterns (2007), where they found that readers – in this case Japanese children – focused on text lines first and characters’ expressions second.

In the last ten years (2003-2013) a total of 5840 new translated manga series have been launched in Spain (Bernabe 2014). Originally, manga was adapted to Western readership: comics were inverted to adapt to the target-culture reading direction, and all Japanese cultural items were translated. Currently, the original reading direction is not inverted and there is a tendency to transcribe instead of adapting the original Japanese references (children’s manga can be considered an exception to this rule). These changes were initially required by original

authors and publishers but the tendency was firmly set based on the readers' feedback, who mostly guided by their interest in the source culture, saw it as a kind of respect towards the source culture. Jüngst (2008: 59) has reported a similar development for manga translation in Germany, mentioning the request of Japanese publishers to keep original reading direction. Rota (2008: 95) mentions a similar tendency across Europe based on writers' restrictions, economic reasons (it is cheaper not to modify it) and a general preference across readers.

Readers thus become an important variable to take into account. Lefèvre warns that "the reader does not come unbiased or innocent. He comes with schemata" (2000: 1). Torres-Simón (2008) evaluates the manga reader as an extremely critical type of reader. Ingulsrud and Allen's own experience in becoming "manga literate" highlights the difficulty of manga reading: "reading manga is far from a mindless activity" (2010: 2). There is not, though, any "ideal reader" (Kovacic 1990).

Bearing this in mind we believed in the necessity to first provide a profile of the manga readers who were going to participate in our research and then set up a reception experiment that would provide us with empirical data on reading strategies. Specifically, we wanted to know how different translation strategies (adapting the cultural item, which we assimilate in this paper to domesticating strategies, or keeping the original reference, which relates here to foreignizing strategies) affect the behavior of readers.

In order to answer the main question of this research (whether the change of the translation approach affects the cognitive load of the reading experience), we are going to present the data collection methods, define the profile of the participants in the study, describe the experiment and present the preliminary findings.

2. Methodology

Our experiment consisted of two stages: an online questionnaire and an eye-tracking session. The online questionnaire had a twofold purpose: to collect data on manga consumption at the university and to identify prospective participants for the eye-tracking session. Both stages were carried out at the Universitat Rovira i Virgili in Tarragona (Spain).

An invitation to the online questionnaire was sent to all students at the university requesting the participation of those "interested in manga". We wanted to have a general idea of expertise within the community. Respondents were informed about the purpose of the research and gave their consent to use the data they provided. At the end of the questionnaire they were

invited to provide an e-mail address if they wanted to participate in the second part of the project.

The eye-tracking sessions took place at the Aula d'Anàlisi de la Parla, at the Campus Catalunya of the university. Participants were invited to select a time spot at their convenience to come to the lab. The session lasted about 30 minutes on average and consisted of the reading of manga excerpts on a computer screen, verbally answering recall questions about the segments and a short interview at the end. Data was collected using a Tobii X120 eye-tracking connected to a 23-inch monitor screen. After the collection, the data was processed using Tobii Studio 3.2.2 and Microsoft Excel.

3. Questionnaire results: Manga at the URV

The questionnaire consisted of 13 questions and it was administered using the EncuestaFacil platform. The questions aimed at knowing more of their reading habits and their manga consumption habits. A total of 284 people completed the questionnaire and provided valid data. Regarding the participation in the second stage, 111 respondents provided their e-mail address. Respondents age from 17 to 47 years old, with a mean age of 21.87 years. 46% of the participants were male (132 participants) and 54% female (152 participants).

Most respondents (53%) claimed their interest in manga can be traced back to their early teens (11-15 years old), several trace it back to their late teens (25% located their first readings between 16 and 20 years old) or childhood (18% remember reading manga before the age of 10), and a minority classify it as a recent phenomenon (3% started reading manga in their twenties or later). When asked why they began reading manga, 87% of the respondents chose anime as the ignition of their interest. Friends and family recommendations was another link to manga: 27% entered the world of manga due to friends' recommendations and a further 3% explain in other the influence of older brothers/sisters and parents. A 20% relate their interest in manga to a previous interest in Japan.

Regarding reading habits, the majority use more than one medium to access manga: 62% read printed manga, 75% read it online and 23% read it in electronic format. As more than one option was possible, we learnt that 13% use any media indistinctively, while 31% read only online, a good 21% stick to the classic printed manga and a low 2% use electronic devices only to read manga.

48% of respondents read between two and five volumes per month (we asked them to consider 100 pages as one volume if they read online), and 40%, only one per month or less. A fur-

ther 9% read between 6 to 15 volumes per month and a narrow 3% read more than a volume every two days. So, most respondents read manga weekly.

Several means were presented to access manga. On the one hand, 44% claim to spend money on manga (they buy them), spending from 2€ to 50€ a month. On average, they spend 14.50€, which would correspond to two volumes, with a median expenditure of 10€. Regarding “free” access to manga, 81% look for volumes on the internet, 29% borrow it from friends, 15% borrow them from the library and 5% read manga through other means (like “reading it in the shop”, “borrowing them from the authors”, or “receiving it as presents”).

Having considered blog reviews as a possible mean to present manga to readers, we asked whether participants followed any manga blog. Manga blogs are a regular source of information for 24% of the participants, and a sporadic source for 44% of the respondents. The remaining participants (32%) never read manga blogs.

Regarding language, most participants read in Spanish (88%), English (43%) and/or Catalan (38%). A minority claim to read them in Japanese (3%), Portuguese, French or Chinese (1%).

We asked the participants for other Japan-related interests. The most voted interests were anime (89%), videogames (68%), Japanese food (48%), cosplay (25%), Japanese art (20%), Martial Arts (20%) and J-Pop/J-Rock (15%). Also, 21% of the respondents had studied Japanese language at some point.

So all in all, the prototype of the manga reader in URV is a 20-year-old woman who developed an interest in manga in her early teens after watching anime, who currently reads two to five volumes a month, spending around 15€ a month on buying some and obtaining the rest from the internet. She reads in Spanish and has further Japanese-related interest, mostly anime and videogames.

4. Eye-tracking experiment

As mentioned, the second part of the experiment consisted of an eye-tracking session with the respondents who provided their e-mail address for further contact. The eye-tracking sessions took place between October and November 2014 at the Universitat Rovira i Virgili. The participants were asked to choose a date and a time to come individually for the session. Upon arrival, we explained to them how the experiment was structured and we told them about the research project (without any specific mention of the difference in translation strategies). Once any question they might had was answered, they were asked to sign a consent form.

4.1. Input

We wanted to test if the decision to use foreignizing or domesticating strategies in the translation of manga would affect the readers' comprehension and reading behavior. We assumed foreignizing strategies would be more cognitively demanding for them. In order to do this, we selected real passages from published manga books translated into Spanish, which contain the names of food related items either kept in Japanese in the foreignizing version (e.g. *ramen*) or adapted into Spanish (e.g. *fideos* “noodles”) for the domesticating version. Once we had selected these passages, we edited the images to create an alternative version for each segment. That is, for each domesticating excerpt we created a foreignizing version, and vice versa. Figure 1 shows the original and altered versions for one frame.



Fig. 1: Original and altered version for one segment in Shinchan.

The utterance in the left-hand cartoon in Figure 1 (“It is just fish-shaped pastries”) provides an alternative to the Japanese food item by adapting “taiyaki” to existing Spanish solutions “pastitas en forma de pez” (fish-shaped pastries). We consider this to be the domesticated version. The balloon in the right-hand cartoon (“It’s just taiyaki”) keeps the original Japanese term for the food item they are discussing in the comic strip: “taiyaki”. We considered this a foreignizing version.

4.2. Material

We selected two mangas, *Shinchan*® (S) - by Yoshito Usui - and *Ranma ½*® - by Rumiko Takahashi. In their translations into Spanish, the translation of *Shinchan* published by Planeta (2011) follows domestication (Dom) guidelines, while the translation of *Ranma ½* published by Glenat (2012) opts for foreignization (For) strategies. They are both translated by Daruma SL. We included two passages from each manga and for each segment, used the original published version (O) and an alternative version (A). Thus, we had two versions of each excerpt.

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4.3. Randomization

Each participant watched the four excerpts only once and under one condition. After the visualization of each excerpt, participants were asked to describe the scene they had read, to answer two questions related to how the food appeared in the content and context and to provide their opinion on the segment.

We used two different orders of administration; we randomized the conditions but kept the order of the segments the same for all participants (see Table 1). Ideally, we would have also randomized the order of the segments, but that would have required double the number of participants. To counterbalance this problem, we included an additional segment at the beginning of the session. This segment was taken from another manga (*Monster* by Naoki Urasawa published by Planeta and also translated by Daruma), which served to make participants feel comfortable about the eye tracker, show them the type of comprehension questions they were going to be asked.

Order	Excerpt			
	Ranma 1	Ranma 2	Shinchan 1	Shinchan 2
1	Original-For	Alternative-Dom	Original-Dom	Alternative-For
2	Alternative-Dom	Original-For	Alternative-For	Original-Dom

Table 1: Randomization of the excerpts.

4.4. Participants of the eye-tracking session

We collected data from 20 of the 111 participants who gave their contact details in the questionnaire. Two participants were excluded from these analyses due to poor data collection (P08 and P20). Additionally, the recordings of two segments read by P18 and one segment by P19 were also excluded for the same reason.

5. Preliminary results of the eye-tracking session

In order to present the first results of this study, we will analyze here one frame from each segment. We selected the frames for which we had created an alternative version and analyzed the participants' behavior on these frames only. Each frame was divided into two areas

of interest: the image and the text. At this stage, we used two measurements to explore the participants' behavior. First, we considered the mean fixation duration on each area of interest (image and text) and then, we identified the reading pattern within the frame. Measurement was based on the fixation on the two areas rather than on the specific words due to possible accuracy problems. The Tobii X120 eye trackers offer a typical inaccuracy of 0.5 degrees, which would have made it very difficult to identify fixation on specific words.

5.1. Mean fixation

The mean fixation duration was calculated by adding up the duration of all the fixations and dividing this figure by the number of fixations. When looking at the mean fixation duration per translation strategy, we observed domestication causes a longer mean fixation on the text (433.85 ms) than foreignization (426.49 ms). This situation was reversed for the mean fixation on the image, because domestication had a mean fixation duration of 255.35 ms, which was lower than the mean fixation duration in the foreignizing instances (290.44 ms). This implies participants have shorter fixations on the text and focus more on the image when the segment is translated using foreignizing strategies. The process seems logical because the image could offer, in these cases, more information about the meaning of the terms.

	Mean	StdDev
Image		
<i>Domesticating</i>	255.35	200.84
Alternative	284.35	213.21
Original	227.74	186.68
<i>Foreignizing</i>	290.44	192.12
Alternative	331.88	225.84
Original	232.43	110.28
Text		
<i>Domesticating</i>	433.85	453.17
Alternative	310.51	221.26

Original	680.54	656.82
<i>Foreignizing</i>	<i>426.49</i>	<i>454.11</i>
Alternative	755.61	743.32
Original	327.54	249.81

Table 2: Mean fixation duration on the image and the text areas per translation strategy.

We should nevertheless take into account that there could also be a difference between the original version and our alternative version. In the original version, the domesticated strategy produced a higher mean fixation duration on the text (680.54 ms), while in the alternative version, the case is the opposite, the foreignizing version produced a much longer mean fixation duration (755.61 ms) in comparison to the domesticating strategy (310.51 ms).

As can be seen, the standard deviations of the mean are, in general, very high. This indicates a high degree of variation in the measurements. Unfortunately, the lack of studies on eye-tracking and comics does not allow us to establish boundaries that would help us filter the data (cf. Hvelplund 2014). Future reports on this research will require a more fine-grain analysis of the fixations and a comparison between the fixations on these specific frames and the rest of the passage.

5.2. Reading patterns

For analyzing the reading patterns in each one of the selected frames, we considered the distribution of the fixations between the image and the text and the order in which they occurred. We are referring here only to the participants' reading behavior on the selected frames and the results we report here are only preliminary.

Instead of counting the number of fixations, we take the visit to the area as the indicator to define the pattern. A visit could consist of one or multiple fixations. We created acronyms based on the patterns. Thus, if the participant started with a visit to the image and then goes to the text, we have an IT pattern. The complete list of patterns occurring among our participants can be seen in Table 3.

We divided the patterns into two categories: simple and complex patterns. Simple patterns consist of a visit to one of the areas (image or text) or a combination of one single visit to each area. That is, there is none or only one shift between the two areas. Complex patterns are made of three or more alternated visits to both areas. As can be seen, in both strategies the

most common pattern is a simple pattern with a visit to the text area followed by a visit to the image. It could be argued this is the most natural way of reading the frame since it occurs in 37.68% of cases.

Simple patterns account for 59.42% of all patterns. Simple patterns were more common when reading domesticated versions (34.78%) than when reading foreignized versions (24.64%). On the contrary, complex patterns were more frequent when participants were reading foreignized translations (24.64%) than when they were reading domesticated versions (15.94%).

	Domesticat- ing	Foreigniz- ing
Simple		
I		1
IT	3	3
T	6	2
TI	15	11
Complex		
ITI	6	7
ITIT	1	2
ITITI		1
ITITIT	1	
TIT	2	3
TITI	1	2
TITIT		2

Table 3: Reading patterns in the selected frames.

6. Conclusion

The preliminary findings from the eye-tracking session point at different reading processes when different translation strategies are applied. As noted, mean fixation duration is longer on the text area for the segments translated using domesticating strategies, while it is longer on the image for segments translated with foreignizing techniques. That result alone would imply that readers take longer to understand textual fragments where food words have been adapted and translated as Spanish regular dishes. However, another conclusion could be extracted if compared to reading patterns. Reading patterns within the selected frames are more complex when foreignizing strategies are applied, which might imply a more compelling need to re-read in order to reinforce comprehension.

Within a context in which readers are familiar with Japanese culture – as indicated in the results from the questionnaire - it can be argued that domesticating strategies produce certain confusion in reading. While the meaning might be understood, certain items seem out of place in a manga where characters behave Japanese, but do not eat Japanese. The reader takes longer to connect the word to the context implying a longer fixation in the text. Foreignizing strategies, though, clearly mark food as foreign, provoking immediate return to the image for confirmation or fuelling complex reading patterns where sense is obtained from other items away from the exact used word.

Again, the assumed interest in Japanese culture – shown by the answers in the questionnaire – could also explain a higher degree of acceptance of foreignizing strategies: Readers want Japan to be present throughout the manga.

The use of eye-tracking techniques to explore the translation of comics is a new method that needs to be further developed in order to provide more solid understanding of how translated comics are read. Considering the lack of studies of this nature, analyses need to be particularly careful not to include bad-quality or biased data and, at the same time, to keep the researchers from excluding valid data. Further, more studies using triangulation techniques are also needed in order to provide solid results and serve as grounds for future research.

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