



fig. 1.
Bilingual text at every level, from the introductory panel to specimen labels, makes Spanish-speaking visitors feel welcome in a museum that celebrates the biodiversity of the border region.

Beyond Translation Towards Better Bilingual Exhibitions

Erica Kelly
Amparo Leyman Pino

In January 2015, *Coast to Cactus in Southern California* opened at the San Diego Natural History Museum (theNAT).

This 8,000-square-foot exploration of the region's varied habitats and rich biodiversity is the latest permanent exhibition at theNAT to have interpretive text that is completely bilingual in English and Spanish (fig. 1). Having made the commitment to bilingual interpretation in every exhibition developed internally, theNAT seeks with every project to deepen its proficiency at presenting content in two languages. After the opening of *Coast to Cactus*, theNAT engaged the expertise of Amparo Leyman Pino, an education consultant specializing in bilingual exhibitions, to help us review, assess, and refine both the exhibition's Spanish text itself and theNAT's process of translation and text review. This exercise, and the lessons learned, can serve as a model for museums seeking to build their own capacity to develop bilingual text.

Committing to Inclusion: Going Bilingual 1.0/ Volviéndonos bilingües 1.0 by Erica Kelly

Bilingual text isn't new at theNAT. We made the commitment to fully bilingual interpretation in the 1990s, during a strategic planning process that refocused our institutional identity on a mission to study and interpret the natural history of southern California and Mexico's Baja California peninsula. Yes, this commitment presents challenges. But it also takes a lot of pressure off the exhibit team. There is no handwringing over whether we should or shouldn't, over how and how much. Maybe you've been part of those discussions. *How about just the intro panels...? Or maybe we could develop handheld guides with text in Spanish...? Because won't bilingual labels cut our real estate in half for how much content we can communicate? And won't visitors run the other way when they see all that text?!*

Those discussions are behind us. And having made the decision to go bilingual, all those concerns about its implications have simply become design constraints, just like any other. The decision was likely a more obvious choice for us than it might be for some other U.S. museums. By 2050, San Diego's Latino population is expected to increase by more than 100 percent from the 2010 census.¹ A 2011 survey of San Diego County residents showed that 11 percent of the county's

population speaks only Spanish at home.² A San Diego resident with a passport can go to Mexico for the weekend—or for dinner. Buses bring school groups to theNAT from Tijuana. The Spanish version of the online curriculum for our first major bilingual permanent exhibition, *Fossil Mysteries*, has been downloaded more than 10,000 times, compared to approximately 9,000 downloads in English. The reality is that we serve a diverse community in an international border region where a significant percentage of the population is more comfortable speaking and reading Spanish than English.

There is research that supports the decision to make all exhibit text available in both languages, despite the challenges that this approach presents. The Bilingual Exhibit Research Initiative (BERI), conducted from 2010 to 2012 with funding from the National Science Foundation, explored current practices in bilingual interpretation across multiple U.S. science museums. When the BERI findings were published in 2013, they yielded important information about how Spanish-speaking visitors use and perceive bilingual exhibits, including evidence that when two languages are available in a museum environment, groups of Spanish-speaking visitors do not just choose a language—they use both, switching back and forth, sometimes within the same sentence. This serves as an important reminder

1 Andrew Keatts, "How San Diego's Changing, in Three Charts," *Voice of San Diego*, August 30, 2013, accessed September 23, 2015, <http://www.voiceofsandiego.org/mayoral-election-issues-2014/how-san-diegos-changing-in-three-charts/>.

2 "San Diego County Demographics Profile," County of San Diego Health & Human Services Agency, accessed September 23, 2015, http://www.sandiegocounty.gov/hhsa/programs/phs/documents/CHS-Demographics_NorthCentral.pdf.



that making both languages available simultaneously “provides more than just access to content—it [allows Spanish-speaking visitors] to facilitate the visit with their children, provide instructions, keep up with the rest of the group, and feel empowered in the exhibition”³ (fig. 2).

But getting all that Spanish text *right* is deceptively difficult—your work isn’t done when you hire a translator. During translation of the *Coast to Cactus* label copy, it sometimes seemed as if all we did all day was puzzle over word choice. Common names of animals and plants posed the biggest hurdle. Is an owl “*un búho*” or “*un tecolote*”? Depends who you ask. Given our regional mission, we had already decided that where more than one option existed, we would use whichever name is more commonly used locally. But species names aside, the process of translating general language often seemed fraught with disagreement. A word that

seemed the obvious choice to our hired translator, a native Spanish-speaker from Argentina, would be shot down by a staff member from Mexico. We felt like we needed more people at the table, but we weren’t sure who those people were, how to find them, or how the process for working with them might look.

Independent evaluator Randi Korn (who with her team was conducting a full summative evaluation of *Coast to Cactus* and its reception with both English- and Spanish-speaking visitors) thought she could help. Randi connected us with Amparo Leyman Pino, who has worked with other institutions wrestling with exactly these issues. We brought Amparo on board to help us thoroughly assess our Spanish text—both the product (the language and words we use) and the process (how we translate, review, and edit). What we learned is helping us remediate *Coast to Cactus* where we can—but more importantly, it will inform our practice for future exhibitions.

fig. 2. Providing equal access to both languages in one label facilitates social interaction for groups that may include both Spanish and English speakers at different levels of language proficiency.

³ See Steven Yalowitz, Cecilia Garibay, Nan Renner, and Carlos Plaza, *Bilingual Exhibit Research Initiative: Institutional and Intergenerational Experiences with Bilingual Exhibitions*, a 2013 report that addresses findings from the Bilingual Exhibit Research Initiative (BERI), a National Science Foundation-funded project (NSF DRL#1265662) through the Advancing Informal STEM Learning (AISL) program, p. 7. You can find the report at http://www.informalscience.org/sites/default/files/2013-10-01_BERI_Research_report_Final_Sep_2013.pdf.

**Deepening Capacity:
Going Bilingual 2.0/
Volviéndonos bilingües 2.0**
by Amparo Leyman Pino

I started working with bilingual exhibitions and programs in museums in 1994, when I was the education advisor for the exhibits department at Papalote Museo del Niño, the children’s museum of Mexico City. Writing labels and educational guides for teachers and visitors gave me the expertise to find the museum’s voice and tone for explaining science phenomena and instructions in a fun and accessible way. As Papalote has an IMAX theater, and some of the temporary exhibitions came from abroad, we faced the challenge of not only translating the labels and educational guides, but also adapting them culturally to our audience in Mexico—to make them look, feel, and sound local.

My consulting practice in the United States primarily focuses on helping institutions more effectively engage Spanish-speaking audiences. I translate both language and culture. In my experience, the text must flow as if it was written in the reader’s home language. The challenge then becomes not simply

creating a word-for-word translation, but establishing a process in which the translator understands the intention of the exhibit developer and the goals of the exhibition itself—and ensuring that those intentions are reflected in the Spanish text. Additionally, it is important to address cultural aspects of language, such as idioms and expressions, which make the Spanish text as appealing and inclusive as the English. The ultimate goal is to ensure that visitors who speak Spanish feel welcomed and appreciated.

With this expertise, I was invited by Randi Korn to be part of her team to submit a proposal for the summative evaluation of theNat’s *Coast to Cactus* exhibition. Randi envisioned my participation as the bilingual advisor, from the writing of the proposal to the actual evaluation: assessing the components and the use of Spanish of the exhibition, as well as reviewing and commenting on the instruments. Randi got the project, so we planned a face-to-face meeting. She and her team traveled to San Diego to discuss planning for summative evaluation; I joined the group to be part of those conversations as their advisor, hear the team’s concerns, and read the exhibition’s bilingual text for myself.

I immediately caught the most common flaws in the translation processes: a lack of understanding of Spanish phonetics; not using “neutral Spanish”; and insufficiently rigorous proofreading. These flaws became the basis for my following advice to the museum.

Understand the nature of the Spanish language. In a few labels, theNAT included phonetic pronunciation guides to help demystify scientific terms. This makes sense to do in English, which is not consistently phonetic. But Spanish is a phonetic language—it is written as it sounds, with accent marks over the vowels (á, é, í, ó, ú) to indicate emphasis. Therefore, there is no need for pronunciation guides (fig. 3).

Use neutral Spanish. I also noticed several words that made me think that the translator was Argentinian. For example, in one label, the word *largos* caught my eye. Spanish is a rich language with many synonyms that vary between country and/or region, and one word could have two different meanings depending on the country and/or region. *Largos* is an Argentinian synonym for the more neutral word, *patio*. *Largos* could

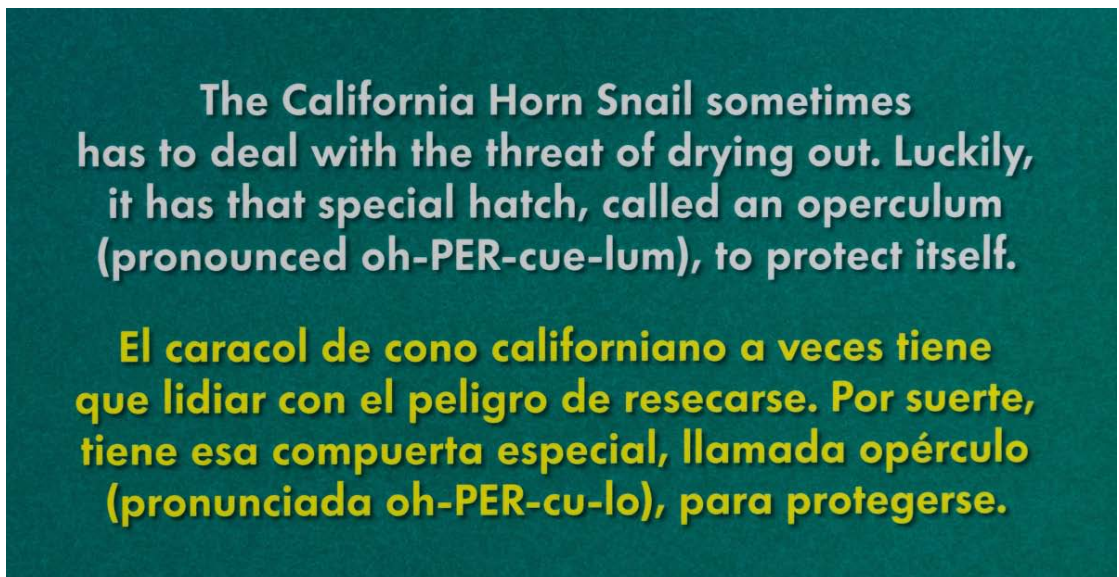


fig. 3. In translation, pronunciation guides are unnecessary—Spanish is already phonetic. We will remove these during remediation.

COURTESY OF GREG RONLOV

mean the plural of something that is big and not necessarily a backyard. When translating into Spanish, it is important to use neutral Spanish, which will be understood by the majority of Spanish speakers. The *Diccionario de la Real Academia* (RAE), the official Spanish dictionary, provides the usage of a word according to the country of origin. The website “lexicoon.org/es” is another great resource that provides, alongside the word’s meaning from the RAE, a graphic showing its usage around the world. The text cannot sound *Argentinian* when a museum is serving a Spanish-speaking audience from Mexico.

When it comes to hiring a translator, the “Translation Process Guide,” a step-by-step methodology developed by the Nanoscale Informal Science Education Network (NISE Net), offers useful criteria:

Essential:

- Advanced understanding of written and spoken Spanish
- Advanced understanding of written and spoken English
- Flexibility and availability to make iterative changes, up to the last minute
- Ability to research and answer questions independently

Preferable:

- Native Spanish speaker

Desirable:

- Familiarity with local Spanish-speaking audience
- Familiarity with the topic being translated
- Experience communicating with the public

Proofread, proofread, proofread.

Hiring the right translator is only part of the equation. The secret ingredient is proofreading. The NISE Net recommends the following criteria when choosing professional proofreaders:

Essential:

- Advanced understanding of written and spoken Spanish
- Advanced understanding of written and spoken English
- Expertise with the topic being translated
- Understanding of familiar topic-related terminology

Preferable:

- Native Spanish speaker

Using proofreaders and translators from different countries of origin also helps ensure that your Spanish is neutral. I also recommend inviting a native speaker—someone who represents your average visitor—to read your text to verify that it is friendly, and a scientist (or other pertinent expert) to ensure it is accurate.

Translators and proofreaders should also be provided with a glossary of topic-specific terms and species names. Translation guides like the one from the NISE Net (or the National Park Service’s “Spanish Style Guide”) suggest that institutions create their own style guides, so that when the need arises to reference a species or place (fig. 4), everyone in the museum knows where to get that information.

By reviewing text during the summative evaluation process, I was able to identify issues and make recommendations that would lead to an improved process for future projects at theNAT. I have a profound respect for theNAT staff. They are open to learning and identifying opportunities to better engage Spanish-speaking audiences, and I am positive that the process we went through together will help them more effectively achieve their goals.

The ultimate goal is to ensure that visitors who speak Spanish feel welcomed and appreciated.

Conclusion

by Erica Kelly

As we finalize this article, the NAT's exhibit team is implementing as many of Amparo's recommended changes as possible to the Spanish text in *Coast to Cactus*. (Our exhibition budget included funds for remediation after opening.) And as work on another new permanent exhibition is already underway, we have the opportunity to ground test our new-and-improved translation and proofreading process, which will now include:

- A hired translator who is a native Spanish speaker. (We got this one right before.)
- A hired proofreader who is a native Spanish speaker. (We got this right, too.)
- A *second* proofreader who is a NAT staff member familiar with our mission, style, and voice, and who is a native Spanish speaker from our region. It sounds obvious in retrospect, but we were missing this step.

Our hired translator and proofreader use neutral Spanish, but even with a good translator, word choices regional to that individual's country of origin can slip in, unnoticed. We didn't have a checkpoint in place that would catch these instances.

fig. 4. When more than one name for an animal or plant existed in Spanish, the NAT used the one most commonly used locally.

And with no formalized process, disagreements about word choice were taking up more time than they needed to. We were happy to learn from Amparo that we were doing a lot of things right—and that in the end, the course corrections we needed to make are really pretty simple. Other institutions might just be starting their bilingual journey, but hopefully the lessons we've already learned can serve as a roadmap. ■

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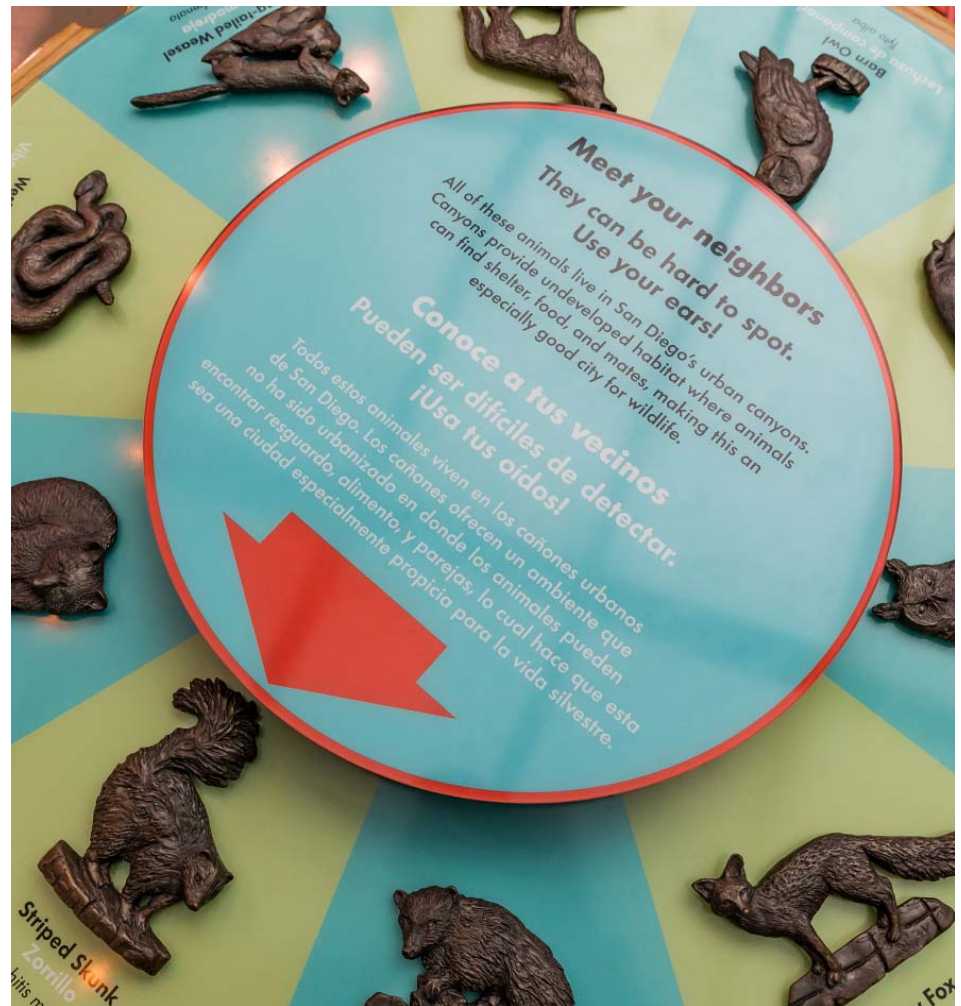
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