

TRANSIT SPACE AS SEMIOTIC LANDSCAPE:
CROSS-CULTURAL INVESTIGATION INTO TRANSIT SIGNAGE
IN THE US AND JAPAN

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Abstract

This research investigates how transit signage (i.e., signage on public transit) reflects and creates culture within transit space, an understudied linguistic landscape. The study posits the existence of *transit literacy*, a situated literacy which fits within the framework of multiliteracies (The New London Group, 1996). Data collection took place on public transit in Japan and the United States and comprised three parts: an examination of visual semiotics of signage in a BART station in Oakland, CA; an analysis of multilingualism and social semiotics on interior bus signage in Oakland, CA; a chronicle of a bus ride in Oakland, CA; and an analysis of a manner poster from a subway station in Tokyo. Data were interpreted through the lenses of multimodal mediated discourse analysis (MMDA) and geosemiotics (Scollon & Scollon, 2003). Findings revealed that culture informs semiotic usage in transit signage and supported the existence of transit literacy.

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Chapter 1 Introduction

Significance of Public Transit Signage

Ubiquitous in everyday life, signage abounds. In urban settings, signage assists with navigation of the space and communicates expectations of behavior therein (Schimkowsky, 2022b, p. 2). Though its explicit purpose is to transmit a message, signage communicates much more. Signage reveals aspects of community, culture, and literacy associated with its origins. By virtue of its design and the space it occupies, signage captures a flow of culture among viewers, signage designers, and space.

Functions of Signage in Public Transit Spaces

Within public transit spaces, signage serves several aims. Signage informs: It describes the structure of the space at different scales, including stations, carriages, and the overall transit system. Signage warns: It alerts passengers to surveillance devices and of the legal consequences of criminal and antisocial behavior. Signage civilizes: It designates behavioral standards to promote passenger comfort and safety (Symes, 2015). Transit signage models appropriate etiquette, such as refraining from eating, conversing loudly, playing music, or occupying too much space (Schimkowsky, 2021). The need for signage is evident: Thoughtless behavior on transit arises from causes such as “overcrowding, lack of supervision, and the transient nature of ridership” (Schimkowsky, 2021, p. 933, citing Smith & Clarke, 2000). Under such stressful conditions, passengers are predisposed to irritability and less inclined to feel concern for the expectations of others in a crowded, anonymous space.

The perception of public transit as a space rife with “rude strangers” (Smith, Phillips, & King 2010) is not unexpected since transit space is a nexus for a range of behavioral

expectations: Passengers hail from diverse sociocultural backgrounds and harbor different attitudes toward behavior in social space (Symes, 2007). The transit authority has an incentive to create a pleasant environment for passengers. Should the hassle of transit outweigh the benefits, passengers can elect to shun public transit altogether (Stradling et al., 2007). The transit authority cannot continuously deploy personnel to enforce rules and guidelines throughout the transit space. The convenient, cost-effective way to convey behavioral expectations is through signage. As an artifact of the local community's culture and literacies, public transit signage warrants research.

My Interest in Transit

I grew up in Oakland, California. Throughout my school years, I rode buses in Oakland daily by myself and with friends. Later, when I began working, I commuted daily on the bus. Though often slow, uncomfortable, dirty and noisy, it was affordable and familiar. Despite its faults, I like public transit. It is a hallmark of community, a space where a mix of people congregate and interact directly and indirectly. Over the years on transit, I learned a lot about my community by observing and listening (or more accurately, people-watching and eavesdropping). In the present research, I learned how signage on transit informs and is informed by culture and literacy.

When I began the LCLE program at Indiana University, I did not appreciate the potential of public transit for investigating literacy, culture, and language education. What researcher would care about such a humdrum setting? Little of note happens. People wait for the bus or the train. After boarding, they sit or stand, perhaps reading, chatting, or sleeping. The space places few demands on passengers. Therein lies its charm: Transit space is the picture of human mundanity. It presents a casual tableau of a community's culture and literacy.

While residing in Japan, I recognized the connection among culture, literacy and public transit. A major reason that I chose Japan as a destination for living abroad is its first-rate public transportation. My experience with transit there presented a striking contrast to that in Oakland and the US in general. Trains and buses were clean, safe, comfortable and punctual; the staff, efficient and courteous. On my daily rides, I had an epiphany that transit was culture in action, and that a researcher could glean cultural insights simply through observing transit space.

I chose to research public transit space because it is familiar yet offers me an opportunity to make the familiar strange. Buses and trains operate around the world but are not identical. In a new culture, public transit presents a space both familiar and strange. All have seats, doors, windows and signage, but the people, language, behavior and attitudes differ. These differences are a product of culture and literacy. Through the research lens, I can make sense of the cultures and literacies at work in the transit space. I can revisit spaces from my youth and compare and contrast them to spaces I encountered while living in other communities.

Purpose of Study

This study investigates the rich semiotic landscape of public transit signage. Designed according to the audience, signage offers semiotic evidence of the cultures and literacies of the signage producer and the viewer. The study examines public transit in different communities to understand the connections among culture, literacy, social semiotics, and multimodality within signage.

Signage on public transit, or *transit signage*, is an artifact offering an intersection of cultures and literacies, its content both encoding and influencing culture and literacy. It includes advertisements, appeals for social causes, and declarations of transit rules. Transit signage succeeds in communicating because passengers and signage designers share cultural background

and literacies. It aims at influencing thought and behavior of passengers. To achieve this end, transit signage must express messages in a form grasped by viewers, that is, within the parameters of their culture and literacy. By examining transit signage, researchers can draw inferences about cultures and literacies of passengers and signage designers. The lens of multimodal mediated discourse analysis (MMDA) brings the relationship between culture and semiotic use into focus.

Communication and meaning are bound inseparably to culture and society, and together “form a tightly integrated whole” of mutual influence (Kress, 2009, p. 8). Communities differ in history and culture, and accordingly produce different semiotic usage (Kress, 2009). The more distinct cultures are from one another, the greater the differences in their use of mode and sign (Kress, 2010). Transit signage in different countries should exhibit differences in semiotic usage. It should also vary by the cultures and literacies of the transit authority and passengers. To gauge the relationship among semiotics, culture and literacy, the study includes data collected from different countries.

Theoretical Framework: Social Semiotics and Geosemiotics

Though rich with significance, transit signage has garnered little attention from researchers. I propose to examine signage on public transit to better understand how it acts as a window on and a mirror of local culture and literacy. I view the phenomenon through the lens of multimodal mediated discourse analysis (MMDA). In this chapter, I explain concepts and theories fundamental to MMDA: social semiotics, geosemiotics, sign, mode, and multimodality.

Social Semiotics

Social semiotics, an extension of semiotics (Sebeok, 2001), rests on the assumption that “meanings derive from social action and interaction using semiotic resources as tools” (Jewitt et al., 2016, p. 58). Social semiotics draws on Halliday’s systemic functional linguistics (SFL), a major departure from traditional thinking about language as a static set of rigid rules (Aiello, 2006). In SFL, language is a dynamic system of semiotic resources used to perform social functions and achieve social goals (Grundlingh, 2018; Halliday, 1984; 1978; Halliday & Matthiessen, 2014; Jewitt et al., 2016). Language is not just “a reflection or expression of social processes and practices, it is a *part* of those processes and practices” (Fairclough, 2001, p. 19, emphasis original). In short, meaning-making is social (Mills, 2016).

Halliday’s theory endows individuals with agency over the usage and meaning of language (Kress et al., 2006), which functions as “an evolving system of meaning potentials” (Jewitt et al., 2016, p. 58). People use language “in ways which are determined socially and have social effects” (Fairclough, 1989, p. 19), with language resources (e.g., grammar, vocabulary, idiom) determining what social goals are achievable. Every use of language becomes a choice, and language users need to be cognizant of the best options in the context (Kress & van Leeuwen, 2006). For example, medical doctors adjust communication style according to their social goals and shared language resources. The language that doctors use to establish rapport with peers differs from that geared for patients, who lack the jargon and expertise.

The thinking behind social semiotics, though explained in terms of language, applies to other forms of expression (Machin, 2007). The grammar (i.e., “structures of relations of elements”) of one form of expression does not necessarily carry over to another, but the principles for meaning-making do (Kress et al., 2006, p. 12). For example, drawing on Halliday’s

ideas, Kress and van Leeuwen (2006) were able to construct a “visual grammar,” a set of culture-based conventions for conveying ideas visually. All semiotic elements, regardless of form, have the potential to serve the functions of constructing the social world; making logical connections therein; carrying out social relations; and organizing messages (Jewitt et al., 2016).

Geosemiotics

Geosemiotics is defined as “the study of the social meaning of the material placement of signs and discourses and of our actions in the material world” (Scollon & Scollon, 2003, p. 2). It extends social semiotics to the realm of physical space, which itself acts as a semiotic element influencing semiotic elements within its bounds. Semiotic elements (e.g., *signs* and *modes*, discussed below) take on their full meaning in a context (Denis & Pontille, 2010), as place, timing, and nature of physical context contribute to their meaning.

How placement of a semiotic element affects meaning is explained by indexicality, a characteristic universal to semiotic resources since they “make references to the real-time concrete spatial world in which we live” (Scollon & Scollon, 2003, p. 21). When a semiotic resource is emplaced, the space creates an index for the viewer, while semiotic elements and physical space index each other. A *No Parking* street sign lying on the ground lacks deictic ability, the “property...of pointing to the world outside of language” (Scollon & Scollon, 2003, p. 209); once installed on the street, the signage indexes the space for the viewer. In the same way, public transit signage contains many indexes, including those related to passengers, culture, and society. Since the placement of signage influences and is influenced by the message of the signage, signage designers tailor messages to index semiotic elements in the viewer’s mind. In sum, space can convey meaning, index another semiotic, and affect the meaning of other semiotics.

Key Concepts

Signs

Though the words *sign* and *signage* overlap in meaning, I employ them such that they convey distinct concepts. *Signage* refers to a physical, usually two-dimensional piece of communication on public transit, while *sign* refers to the basic element of analysis in semiotics (Chandler, 2017; Sebeok, 2001).

In semiotics, a sign is “any material object that indicates or refers to something other than itself” (Scollon & Scollon, 2003, p. 3). Examples include “words, images, sounds, odors, flavors, actions, [and] events” (Chandler, 2017, p. 11). A mediator between mind and reality, signs refer not to physical objects but to concepts (Sebeok, 2001). Signs are not real, just a “means of making knowledge material” (Kress, 2009, p. 30). For instance, the existence of a corresponding wavelength of visible light notwithstanding, the sign *red* exists solely as a concept in the mind.

Although various taxonomies have been proposed, theorists generally treat a sign as a conjunction of two fundamental parts: form and meaning (Chandler, 2017; Kress, 2009, 2010). Saussure, considered the founder of modern linguistics, held that form and meaning had an arbitrary and absolute relationship (Kress & van Leeuwen, 2006). Meaning was “frozen and fixed..... to be extracted and decoded by the analyst by reference to a coding system that is impersonal and neutral, and universal for users of the code” (Hodge & Kress, 1988, p. 12). In Saussure’s conception, sign-users could avail themselves of the system of signs they inherited but not modify the system itself (Kress, 2003).

Social semiotics rejects the model of fixed signs and instead holds that every person is a sign-maker endowed with agency over uniting form and meaning (Jewitt, Bezemer, &

O'Halloran, 2016). Signs arise from “the interest of the sign-maker” (Kress, 2010, p. 10), so the act of representation is always “directed, purposive, and selective” (Cope & Kalantzis, 2009, p. 11) and meaning always “customized to our actual contexts” (Gee, 2013, p. 139). Because sign-makers encode semiotic resources for their social purposes, no semiotic choice can be neutral (Scollon & Scollon, 2003, p. 7).

A system of signs develops by way of semiosis, the “ceaselessly on-going” process of making meaning and shaping resources for representation (Kress, 2011, p. 248; Sebeok, 2001). Consensus on meaning produces conventions of use. Through regular use by a community, signs develop a history and become associated with meanings and connotations (Chandler, 2017; Kress, 2009, 2010; Kress & van Leeuwen, 2006).

Signs operate in conjunction, their mutual association endowing them with meaning (Chandler, 2017). The letter *A* functions as a sign because of the other 25 letters. The word *left* has meaning because of the word *right*. Since a sign signifies something other than itself, no sign holds *a priori* significance (Chandler, 2017): A sign comes into being only once a community invests it with meaning. For example, the word *red* did not refer to a concept until English speakers formed the association. The reason is that reality is not “pre-packaged in tidy boxes,” ready to be labeled semiotically (Chandler, 2017, p. 17). Were this so, meaning would never get lost in translation since the correspondence between signs and reality would be uniform and consistent across language and culture (Chandler, 2017). This is clearly not the case: perceptions of reality differ across communities, which endow signs with idiosyncratic meaning. For example, in some cultures the color *red* conveys good fortune while in others it indicates a command such as *stop* or a warning such as *danger*.

Signs often have a range of meanings (Aiello, 2006), though usually one is favored within a culture (Ma, 2005). Meaning still depends on context (Scollon & Scollon, 2003), so

sign-makers try to limit the available meanings by choosing the form of expression “most apt and plausible in the given context” (Kress & van Leeuwen, 2006, p. 13). The color *red* connotes good fortune in China, but a red traffic light there still means *stop*.

A system of signs bears traces of its history and culture (Hodge & Kress, 1988). Communities incorporate culture into signs, an integration that results from social interaction: “Everything that is socially made and remade becomes part of cultural resources, imbued with the meanings of the work of those who have made and remade the resources” (Kress, 2010, p. 14). Since culture informs representation and interpretation, sign-makers draw upon their cultural background to create messages decipherable to community members (Kress, 2009; Kress & van Leeuwen, 2006). Signs become cultural artifacts, “the products of cultural histories and the cognitive resources we use to create meaning” (Jewitt & Oyama, 2001, p. 136).

As they are mediators between mind and reality, signs differ across cultures and vary over time within cultures (Hall, 1997). A sign’s meaning is usually evident within the community where the sign is used (Kress & van Leeuwen, 2006), but not necessarily outside it. Signs conveying culture-bound concepts can be difficult to interpret for members of cultures that lack a corresponding concept. For example, a fire alarm is meaningless noise unless the sound indexes a warning in the listener’s mind. However, semiotic resources exhibit “discernable regularities...and hence a certain stability” (Kress, 2010, p. 7), thus allowing for inference about culture and community that produced the sign. That is, it is feasible for cultural outsiders to access meaning provided that they gain a background in the culture of origin.

Modes

Modes mediate communication (Norris, 2013). Examples of mode include “image, gesture, gaze, body posture, sound, writing, music, [and] speech” (Jewitt, 2008, p. 247). Almost any form of

information could constitute a mode as long as it has “internal grammaticality” (Jones, 2012, p. 1). However, to qualify as a mode, it must “be able to represent a particular social relation between the producer, the viewer and the object represented” (Kress & van Leeuwen, 2006, p. 42).

Signs and modes always co-occur, working hand in hand and sharing similar properties. Like signs, modes function according to semiotic principles. Modes do not exist in the real world, only cognitively and conceptually, and are realized only by way of a social actor (Norris, 2013). Modes reveal and create social reality (Kress & van Leeuwen, 2006; Street, 1998) and provide “fundamentally different ways of knowing and learning the world” (Cope & Kalantzis, 2009, p. 14). Like signs, modes are flexible: The agency that individuals enjoy over signs extends to modes as well. Users can transform existing modes and create new modes to meet communication needs (Jewitt, 2008). Modes have cultural ramifications: Like signs, they influence and are influenced by culture (Kress, 2003). In short, a mode is a resource; available to sign-makers to make meaning; and shaped by culture and society (Kress, 2014).

Modes exhibit “different potentials for meaning-making” (Kress & van Leeuwen, 2006, p. 41). An idea cannot be moved in its entirety from one mode to another without loss or distortion of meaning (Cope & Kalantzis, 2009; Iedema, 2001). For example, since the mode of writing occurs spatially and the mode of speech occurs temporally (Jewitt, 2008), writing cannot precisely capture aspects of speech such as volume, accent, and tone of voice. This limitation illustrates *modal affordance*, what a mode can “express and represent easily” (Jewitt, 2008, p. 247). Language, for example, is suitable for denoting categories and explaining temporal aspects of relationships, while image is appropriate for showing spatial aspects of relationships and their degree and variation (Lemke, 1998, cited in Unsworth, 2006). Whereas a mode is abstract, modal

affordance is “material, physical, and environmental” (Jewitt, 2008, p. 247). Dividing semiotic work among modes according to modal affordance can amplify the impact of a combination of signs (Kress, 2010).

Multimodality

Modes do not exist in isolation (Norris, 2013). Meaning-making takes place through different modes operating together (Jewitt, Bezemer, & O’Halloran, 2016). For example, language alone is not sufficient for communication (Cenoz & Gorter, 2008). Even the words on this very page employ the modes of language, color, typeface, font size, and medium (e.g. printed, electronic). Each mode adds to the overall meaning (Kress et al., 2006) and the resulting combination functions as an “integrated, multimodal whole” (Jewitt et al., 2016, p. 2). The co-occurrence of modes creates a gestalt, or overall effect, requiring theory and analysis that go beyond those used for individual modes. It is from the dynamic nature of combined modes that the idea of multimodality springs.

Informed by social semiotic theory, multimodality is defined as the “interplay of multiple semiotic modes to transmit meaning” (Norris & Maier, 2014, p. 392). Multimodality has three key premises (Jewitt et al., 2016, p. 3): 1) meaning derives from disparate modes and semiotic resources, each with affordances and constraints; 2) meaning emerges from multimodal wholes or gestalts; and 3) since meaning can emerge from any semiotic resource in a text, all semiotic resources therein must be considered in order to infer meaning. Thinking multimodally clarifies how modes work in conjunction to convey a message. A viewer can identify information within each mode, while understanding how modes collaborate.

The work of communication is divided among modes, each contributing in its own way to the meaning of the text (Kress et al., 2006). For example, during interpersonal interaction, we

express ourselves through speech, gesture and facial expression (Sebeok, 2001). Each mode plays its part within the multimodal whole, with no mode isolated or independent in the meaning-making process (Jewitt, 2008). Interaction among modes also contributes meaning (Jones, 2012): for example, gesture informs speech, in turn informing facial expression.

Though communication is always multimodal, how modes are used together affects the message (Kress & van Leeuwen, 2006). Asymmetry of modal functionality explains how information is presented multimodally (Sebeok, 2001). For instance, image conveys well what language does not, so their complementarity yields a more compelling gestalt. A particular multimodal expression might foreground certain modes (Iedema, 2003). Film conveys messages by way of audio and visual modes that vary in prominence for the sake of narrative. Depending on the circumstance, interpersonal interaction might rely less on speech and more on tone of voice, facial expression and gesture.

Because semioticians deemed it to have a “foundation of rationality” (Kress, 2003, p. 143), language has historically enjoyed a de facto primacy among modes. Multimodality rejects this hierarchy. One mode among many, language is not the most communicative or meaningful (Jewitt, 2013), and does not serve as the analytical foundation for other modes. Multimodality treats all modes with parity.

Though no mode is inherently superior to another, modes have different status according to community and context (Jewitt et al., 2016). For example, in academia, the written word is more valorized than the spoken, while in film the spoken word is preferred. Modal priority and modal terrain (i.e., how work is parceled across modes) vary across cultures, which guide us toward certain interpretations of constellations of modes (Kress, 2010; Kress & van Leeuwen, 2006). As Lemke observes, “[O]ur cultural experience suggests a greater likelihood that certain

kinds of signs in certain modes of juxtaposition ought to be meaningful. We live in communities where many kinds of multimodal syntagms are typical and familiar” (2009, p. 288).

Conclusion

This chapter has explained the nature of public transit signage and the reasons that it warrants investigation. It explained my initial impetus for choosing to research transit signage and its relevance to LCLE. Social semiotics and geosemiotics are proposed as theoretical frameworks through which to analyze transit space and signage. Signs and modes, the fundamental concepts of semiotics, are defined by way of explaining the foundation of multimodality, a property inherent in all texts but especially relevant for understanding public transit signage.

Chapter 2 Literature Review

This chapter explains the key concepts and analytical approaches for the research. First, I detail the steps for conducting the literature search. This part is divided into sections addressing the following topics, which emerged during the literature search: linguistic landscapes; linguistic landscape and language learning; transit signage; transit literacies; linguistic landscapes in Japan; and linguistic landscapes within Japanese public transit. The sequence reflects a narrowing of the subject matter and concludes with the findings most relevant to my research. In the latter half of the Chapter, I explain how the conceptualization of literacy has evolved to subsume phenomena such as transit signage.

Literature Search

I conducted a literature search on Google Scholar, the details of which can be found in Appendix A. Searches for “public signage” and “public sign” produced thousands of results, reflecting researcher interest across a range of fields. I sought studies on signage related to semiotics, geosemiotics, multimodal discourse, culture and literacy, so I constructed searches around these terms.

My heuristic was to start with a few search terms, then refine the search by adding a term or two. Searches with a set of single words ungrouped by quotation marks produced an unwieldy number of results. For example, a search on *public transit signage* returned 55,000 items, whereas “*public transit*” *signage* and “*public transit signage*” produced 27,500 and 7 (seven) results, respectively. The term *linguistic landscape* kept recurring in article titles in the search results, so I constructed searches around it as well.

Google scholar retrieved ample research on “*public signage*” (3,440 results) and “*linguistic landscape*” (28,600 results). To refine these results, I added the term *Japan* to the

search. The terms *Japan “linguistic landscape”* produced 7,750 results, whereas the combined terms *Japan “linguistic landscape” “public transit signage”* yielded zero.

To gauge which studies had made use of my analytical frame of interest, I searched for works that had applied multimodal discourse analysis or geosemiotic concepts to transit signage. Relevant searches yielded **zero** results: *“transit signage” “multimodal discourse analysis”*; *“transport signage” “multimodal discourse analysis”*; *“public transit signage” geosemiotics*; and *“public transport signage” “multimodal literacy”*. The pattern of results revealed a gap in the research: namely, the investigation of transit signage in terms of literacy, geosemiotics, and multimodal discourse analysis.

Through the literature search and review, I identified the following themes: *linguistic landscapes*, *linguistic landscapes in Japan*, and *public transit signage in Japan*. I arranged the literature review into sections around them.

Linguistic Landscapes

A trove of useful research on signage comes from the field of linguistic landscapes, a term referring to “all the language items that are visible in a specified part of the public space” (Cenoz & Gorter, 2008, p. 267). A fuller definition comes from Landry and Bourhis (1997, p. 25):

The language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration.

Linguistic landscapes comprise a “conglomerate of traces of human social activity” while reflecting the role that languages play in society (Mensel, Vandenbroucke, & Blackwood, 2016, p. 424). Any physical space with visible semiotic elements left by human beings for communication purposes can be called a linguistic landscape (Pütz & Mundt, 2019).

Linguistic landscape studies have often adopted a descriptive approach, which lends itself to quantitative assessment (e.g., measuring language diversity, cf. Backhaus, 2007). Such research typically collects a record of every instance of signage within geographical boundaries over a set time span (Van Mensel, Vandembroucke, & Blackwood, 2016). Research sites have included Japan (Backhaus, 2007), Jamaica (Dray, 2010), Thailand (Huebner, 2006), Ukraine (Pavlenko, 2010), Hong Kong (Jaworski & Yeung, 2010), Brussels (Tulp, 1978), and England (Cook, 2013).

Quantitative investigation of the LL (linguistic landscape) usually limits observation to a few categories for the sake of data collection. Though there have been efforts to capture the LL in greater detail (cf. Amos 2016), coarse granularity of categorization inevitably obscures nuance and variation of the signage. LL research has provided a comprehensive, birds-eye view of signage, but has yielded little insight into the multimodal or geosemiotic nature of signage. Therein lies a research opportunity, for the linguistic landscape is “the multimodal material embodiment of social forces” (Guilat, 2016, p. 165).

Because of the characteristics of signage, scholars have argued that the field of LL be treated as an area of semiotics, not just linguistics (Spolsky & Cooper, 1991). Malinowski (2020) held that the apposite domain would be social semiotics, for “collective processes of sense-making are at the core of the field’s interests” (p. 24). Research findings support the contention. Cook (2013) found that signage is “not a defective version of written language but a distinctive genre with its own grammar and conventions” (p. 43). That is, signage has a social semiotic nature evident in the use of grammar as a flexible resource for meaning-making.

The social semiotic nature of the LL implies that researchers should attend not just to the space and the objects therein but also to human interaction with the space (Peck, Stroud, &

Williams, 2019). The linguistic landscape guides viewers toward an interaction order (Scollon & Scollon, 2003), structuring “the way people approach and connect with” a space (Zhao, 2021, p. 252). To date, few studies have attended to the viewer or the LL geosemiotics, but extant research implies that the viewer’s interaction with the LL offers opportunities related to literacy, culture, and language education. Zhao (2021) concluded that the linguistic landscape of Chinatown in Paris helped orient newcomers and acted as “a structured and structuring discursive frame through which individuals make sense of people and place and position themselves in relation to them” (p. 253). Amos (2016) found that the linguistic landscape reflected a “community representative of authentic Chineseness” (p. 127) and served to construct ethnic identity. Wang (2015) included a survey of student attitudes toward foreign language on signage on Japanese university campuses, while Malloy (2023) investigated the emotional reaction of signage readers in multilingual and multi-ethnic linguistic landscapes.

Linguistic Landscape and Language Learning

My research aims at building on the corpus of work on LLs pointing to the wealth of possibilities for teaching literacy, culture and language. Several studies underscore the opportunity for students to acquire literacy in their daily environment beyond the classroom walls. Cenoz and Gorter (2008) analyzed public signage as a multimodal, multilingual source of informal but authentic input for second language learners. Landry and Bourhis (1997) investigated how Canadian Francophone students responded to signage in their communities. In Burwell and Lenters (2015), Canadian high school students examined the linguistic landscapes of their neighborhoods to understand their community and its various representations by outsiders. In another Canadian study, elementary school students found connections between their photographs of the linguistic landscape and multiculturalism and multilingualism (Dagenais

et al., 2009). Assessing linguistic landscapes for multiliteracies, Rowland (2012) ran a university classroom project in which students analyzed the English usage in Japanese signage they photographed.

Transit Signage as Linguistic Landscape

The present study examines transit signage, which fits within the theoretical and empirical parameters of linguistic landscapes. The study aligns with the trend toward examination of the multimodal nature of linguistic landscapes. It fills a research gap in that few studies have investigated public transit space (but see Bayne, 2018; Denis & Pontille, 2010; Padoan, 2014; Schimkowski, 2021, 2022a, 2022b).

From Transit Signage to Transit Literacies

Historically, literacy has been treated as “universal, autonomous and monolithic” (Jewitt, 2008, p. 244) and confined to a narrow definition: the ability to read the printed word. Assessed against an invariable metric, a person would be deemed “literate” if proficient in reading an orthodox variant of a language. In fact, literacy is inherently heterogeneous, varying by community. Regular use of language within a community produces shared expectations for interaction (Jewitt, 2008). Community members can exchange messages by adhering to communication conventions, which constitute a literacy.

Literacy takes form within the manifold changing frameworks of culture and society (Street, 1998). As social and cultural practices vary across communities, so too do communication conventions (Barton & Hamilton, 1998). Because each community generates its own set of conventions, literacy varies across communities, for which reason researchers and educators speak not of literacy but literacies. Community forms around aspects of identity such

as nation, culture, social class, profession, and personal characteristics. Through participation in different communities, a person can become proficient in their respective literacies.

Though usually associated with language, literacy applies to other modes of expression as well. For example, visual material such as a painting implies an underlying literacy because it is information organized according to conventions. Constellations of conventions in other fields such as music, film, and architecture likewise evince the presence of literacies. Because conventions of expression vary, viewers cannot assume that their own conventions obtain when interpreting a text from other cultures and communities. For example, Western viewers might not grasp the implications of East Asian painting, which adheres to conventions of space and color distinct from those of European paintings. However, through study and practice, the same viewers could learn to appreciate artistic expression originating outside their culture.

The world features numerous literacy practices, with more emerging as a result of interaction of the social setting, the material in the social setting, and human nature (Kress, 2003). Literacy is not static or compartmentalized and cannot be made so, for it is set against a “changing communicational landscape...typified by diversity and plurality” (Jewitt, 2008, p. 244). Proliferation of technology and communication channels has catalyzed interaction across cultural and social borders (Kress, 2003; New London Group, 1996), thereby bringing literacies at the local and global levels in contact (Brant & Clinton, 2006). Ideas combine and new ones emerge, while conventions of expression fracture and reform, resulting in “cultural and subcultural diversity” (New London Group, 1996, p. 61). To capture the dynamic, varied and pluralistic nature of literacy, the New London Group (1996) proposed *multiliteracies* as a replacement for the traditional concept of literacy.

Transit Signage as Literacy

Transit signage (i.e., signage on public transit) constitutes a form of literacy that Fuller calls “an interface—a ‘naturalized’ system of semiotized acts that on the whole must be learned to be intuited” (2002, p. 238). The basic purpose of signage—to convey meaning—depends on knowledge shared by signage designers and viewers. To reach viewers, a message must fit communication expectations. Accordingly, signage designers need a command of the relevant literacies on which passengers rely to interpret signage within the transit space. However, transit signage addresses passengers hailing from diverse social and cultural backgrounds. Since literacy varies across communities, transit signage designers cannot count on viewers all sharing the same literacies. For example, Lock (2003) treated the Hong Kong Mass Transit Railway as a nexus of language and culture and concluded that access to meaning of advertisements depended upon the viewer’s background. No single literacy can encompass the array of ridership literacies, but commonalities among such literacies can be considered to constitute transit literacies. *Transit literacy*, as an instance of local and situated literacies, fits within the expanded conceptualization of literacy. Literacies associated with transit spaces subsume an understanding of place semiotics, visual semiotics, and interaction order, all of which signage designers harness to convey a message (Scollon & Scollon, 2003).

Linguistics Landscapes in Japan

Transit space constitutes a linguistic landscape. Studies on linguistic landscapes in Japan are particularly informative to my research. In a monograph examining multilingual signage in Tokyo, Backhaus (2007) photographed signage within the perimeter of the 29 stations of the circular Yamanote Line and amassed a corpus with almost 2,500 pieces of multilingual signage.

Backhaus' analysis focused on linguistic aspects, such as the frequency of certain languages, the presence of translation/ transliteration, and hierarchy (i.e., order of appearance) of languages on the signage.

Backhaus (2007) oriented his research around three questions: (1) Linguistic landscaping by whom? (2) Linguistic landscaping for whom? and (3) Linguistic landscape *quo vadis* [*where are you going*]? These questions address the signage producers, the viewers, and the languages in contact. Their answers speak to the geosemiotic facets of an LL (Scollon & Scollon, 2003).

The overall semiotic pattern suggested expectations about viewer literacy. Two configurations emerged: whereas signage *without* translations or transliterations were meant exclusively for Japanese viewership, signage that included them addressed both Japanese and non-Japanese audiences (Backhaus, 2007, p. 143). Foreign words unrelated to the Japanese prose injected a “foreignness” appealing to non-foreign (i.e., Japanese) viewers, while more complex information on such signage tended to appear in Japanese only. In other words, untranslated foreign words imparted exoticism, not meaning.

Backhaus' study, its thorough documentation notwithstanding, leaves room for further investigation. Although conducted from a transit system, the work does not take into account transit signage: Backhaus avoided photographing the station entrance area to adhere to the parameter of “a unified and non-biased determination of survey areas” (2007, p. 66). This lacuna presents a research opportunity as the transit stations and carriages contain a panoply of multimodal signage. While Backhaus considered print modes such as font size and code, he did not analyze non-linguistic modes such as color or image. Analysis of a wider range of modal usage in Japan should yield results that speak to semiotic landscapes, multimodality, and multilingualism in an urban setting.

Linguistic Landscapes within Japanese Public Transit

Just as cities can be considered texts (Mondada, 2000), so can train stations. Bayne (2018) treated Japanese train stations as micro-landscapes, a subset of the greater linguistic landscape. The study examined manner posters, which “aim to alter poor, or encourage better behavior on public transport” (p. 61). Subdividing the transit space, Bayne (2018) gauged how manner posters varied by location (platform, access areas, entrance and foyer, transit to platforms), but did not include in-carriage signage.

A more recent study examined Japanese manner posters targeting behaviors that impact efficiency, comfort, and safety of public transit. Using a multimodal approach, Schimkowsky (2021) concluded that culture dictates the tone of the manner posters. In US settings, signage designates prohibited behavior typically by way of a red circle transected by a diagonal line. While US passengers accept the authoritarian tone, Japanese passengers would deem a command to obey rules a transgression of decorum. Though the train company has authority over the transit space, passengers in Japan are first and foremost customers, whose needs and desires are paramount. To remain within cultural parameters, Japanese manner posters must solicit passenger collaboration and employ appropriate rhetorical forms: namely, *direct*, *descriptive* and *implicit* appeals (Schimkowsky, 2021).

Direct appeals urge viewers to “engage in, or refrain from, specific behaviors” (Schimkowsky, 2021, p. 144). In Japan, a direct appeal uses inclusive rather than peremptory language. *Descriptive appeals* denote the consequences of behavior, usually detrimental ones, such as train delays or injuries. Descriptive appeals encourage viewers to consider the impact of their behavior on other passengers. *Implicit appeals* employ an indirect tone and might “describe a feeling, pose a question, feature a joke – or even appear unrelated to the targeted behavior at

first glance” (Schimkowsky, 2021, p. 145). The oblique tone of the message demands “a more engaged decoding process because message meaning must be inferred from the poster’s context” (p. 145). One manner poster in his study depicts a dog and a monkey, the Japanese analog of the inimical dog and cat in Western culture. The monkey is smoking a cigarette while the dog recoils from the fumes. The poster uses a play on words, *ken’en no naka*, which translates to “*on bad terms like cats and dogs.*” The poster substitutes the characters 犬猿 (*ken’en: dog and monkey*) with the homophone 嫌煙 (*ken’en: a hatred of smoking*). The bottom of the poster contains the request, “Let’s stop smoking when it’s crowded” (*konzatsuji no tabako ha yamemasho*). By couching a request in a pun on a well-known Japanese idiom, the implicit appeal remains within the bounds of propriety.

The author concluded that public transit manner posters provide material for “socio-semiotic analysis” and furnish “insight into Japanese society and culture” (p. 158). A further research opportunity exists: The study did not delve into geosemiotic systems such as visual semiotics, place semiotics and interaction order (Scollon & Scollon, 2003), all relevant because the signage and transit space index each other and the viewer.

Building on previous work, Schimkowsky (2022b) combined quantitative and multimodal analysis to understand how 40 manner posters on Tokyo transit sought to manage behavior and maintain public order. The research focused on the visual aspect, namely “character figuration, image–viewer relations and the portrayal of misconduct” (p. 1). Schimkowsky (2022b) devised an analytical template based on the work of Kress and Van Leeuwen (2006) and Serafini and Reid (2019). That template included (p. 7):

I. Poster

Targeted behavior; Setting; Perspective

II. Characters

Number, age, gender, appearance; Behaviour, attitude, relations between characters;

Location and salience; Relation to viewer

III. Composition and syntax

Visual style; Colour; Visual strategies; Verbal strategies; Font and script

IV. References

Intertextuality; Temporality

Research of the Japanese transit space thus far leaves room for inquiry. Bayne (2018) did not apply multimodal discourse analysis nor consider the semiotics of the transit space against the backdrop of Japanese culture. Schimkowsky (2021) likewise did not perform a detailed multimodal discourse analysis of individual posters; however, in later research Schimkowsky (2022b) helped fill the gap in understanding the semiotic structure of public transport signage. Regarding further avenues of research, Bayne (2018) identifies examination of manner posters in terms of: tone; participants and their portrayal; language, its range and usage; and influences, cultural and otherwise. Schimkowsky (2022a) suggests that future studies compare how signage's bid to influence behavior varies by location (p. 947). These suggestions point to visual semiotics, place semiotics, and interaction order (Scollon & Scollon, 2003). It is within these areas that my research builds.

Conclusion

This chapter has reviewed the literature germane to my research: namely, linguistic landscapes (LL); linguistic landscapes and their pedagogical implications; transit signage as a feature of the linguistic landscape of public transit; transit signage as a literacy within the framework of multiliteracies; and linguistic landscapes in Japan, particularly in the context of public transit.

My research contributes to LCLE literature in many ways. Previous LL research has attended to urban space but usually overlooked the transit space, one of the most heavily

trafficked pedestrian areas of a city. Transit space warrants scrutiny because it is designed to communicate to passengers across an array of cultures and literacies.

While previous studies tended to limit focus to the station space, my study investigates the in-carriage space as well. Furthermore, I gather data internationally, an approach that allows for cross-cultural comparison of semiotic usage in transit signage. This design fills a gap identified by Schimkowski (2021, 2022a): cross-border comparison of signage to understand the cultural basis of regulation of behavior.

Most linguistic landscape research takes into account the mode of language. In response to calls for the field to be more modally inclusive (i.e., semiotic landscapes, not just linguistic), researchers have added visual modes to their inquiries. I attend to modes other than visual and verbal by collecting in-carriage observational data of passenger interaction. Regarding geosemiotics, many studies mention it in passing but do not incorporate it into their analytical lens. My research speaks to the geosemiotic nature of the linguistic landscape by including place semiotics and interaction order in the analysis. Attending to the geosemiotic facet of transit space helps clarify how signage and space inform each other.

Recent studies on Japanese transport spaces do not provide analysis of the metafunctions (e.g., ideational, interpersonal, etc.) at work within the texts. Through attention to metafunctions, my research provides insights about how the text informs and relies upon the culture and literacy of the transit space, itself a micro-landscape.

Chapter 3 Overview of the Project

Public transit is a nexus of cultures and literacies and a rich semiotic landscape that informs, warns, and persuades a ridership from a variety of backgrounds. Signage on public transit is designed according to the audience and its language, culture, and patterns of communication. The semiotics in signage offers evidence of designer intention and viewer background. This study examines the semiotic choices that signage designers make to mediate a message and anticipate the literacy and culture of the ridership. It addresses an under-researched area of linguistic landscapes: namely, transit spaces.

Rationale for Multimodal Discourse Analysis

In this research, I examined signage by way of MMDA (multimodal mediated discourse analysis) and the space containing the signage through the lens of geosemiotics (Scollon & Scollon, 2003). Researchers have not viewed linguistic landscapes, or more broadly, semiotics landscapes, in terms of geosemiotics. Here, I briefly review the fundamental concepts related to MMDA.

Multimodal Mediated Discourse Analysis (MMDA)

MMDA is predicated on semiotics and social semiotics. Semiotics studies signs, something that refers to something besides itself (Scollon & Scollon, 2003). Signs work through modes, examples of which include language, image, color, gesture and gaze. Social semiotics, an extension of semiotics, treats language as a resource for performing social functions, not a set of static codes or rules (Halliday, 1978, 1984). Language is dynamic, evolving in response to meaning-making needs of speakers in their social settings (Unsworth, 2006). Social semiotic principles regarding language apply to other modes of expression, which follow culturally shaped conventions used to meet social ends (Kress & van Leeuwen, 1996, 2006).

A tool for textual analysis, MMDA helps reveal how different modes of communication, operating individually and collectively, produce an effect (Machin, 2007). Multimodal discourse analysis explains how modes combine to communicate in ways that individual modes alone do not. MMDA recognizes that the whole is greater than the sum of the semiotic parts. One mode enhances and complements the meaning of another: language can change the viewer's interpretation of image, and gaze can refine the meaning of gesture. Each element has its own meaning, but gains communicative power in conjunction with others, which help it realize a new meaning (Machin, 2007).

MMDA helps uncover implicit aspects of local culture such as attitudes toward different identities. As it is rooted in social semiotics, MMDA attends to the social purpose of the text and its cultural nature. MMDA considers how modes vary in significance to each other according to culture (Jewitt et al., 2016). Because culture inheres in its signs and modes, signage designers select and arrange modes according to conventions of the local culture. Transit signage is a locus of interplay among culture, space and semiotics. A cross-cultural comparison of transit signage should reveal how cultures use modal combinations to achieve their effect.

Geosemiotics

My research views signage on public transit in Japan and the United States through the lens of geosemiotics (Scollon & Scollon, 2003). Geosemiotics examines the meanings of an emplaced text and its interaction with readers. It draws heavily from multimodal discourse analysis (MDA) (Kress & van Leeuwen, 2006), an extension of social semiotics (Halliday, 1978). Geosemiotics rests on the idea that space is semiotic: it can convey meaning, refer to something other than itself, and influence the meaning of other semiotic elements. The placement of semiotic

resources such as image and prose within a space alters their index for the viewer, that is, changes their meaning.

The geosemiotic framework comprises three semiotic systems: (1) visual semiotics, (2) place semiotics, and (3) interaction order (Scollon & Scollon, 2003). Visual semiotics focuses on the “visual properties of texts, images, and other signs” (Zhao, 2021, p. 241). Place semiotics concerns “the meaning of language generated from its emplacement in physical space and spatial organization of language” (Zhao, 2021, p. 242). In more general terms, place semiotics would include modes besides language. Interaction order identifies the social arrangements expected of social actors (Zhao, 2021). In a transit setting, interaction order pertains to how passengers are expected to move and behave within the space: for example, in single-file queues in ticket lines, in isolated bubbles while seated or standing on carriages, and on one side of stairs, escalators or moving walkways to allow others to pass.

Literacy

Literacy is relevant to the present study because multiliteracies at work within the transit space. Contrary to common perception, literacy is not universal and singular (Jewitt, 2008) but diverse and plural since usage of language, image, and other semiotic resources varies by culture and community. To communicate, signage producers and viewers must share knowledge of usage of signs and modes in a community. Transit signage communicates because passengers and signage designers share a communication convention. Hence, transit signage encapsulates a literacy.

Multimodal literacy

Literacy can be multimodal as well. For example, movie audiences understand how film combines speech, visual modes, and a soundtrack to narrate a story. Meaning-making varies

across cultures and social settings, since semiotic resources and their combination are shaped by social and cultural factors (Mills & Unsworth, 2006). Semiosis is not necessarily accessible to communities with different multimodal conventions. For example, viewers accustomed to the Hollywood approach to film might not fully grasp a Bollywood movie. In the same way, cultural outsiders might lack literacy to infer intention behind signage in a transit setting novel to them.

Chapter Organization

The research portion of the dissertation comprises three parts, each with its own chapter. *Chapter 4* examines visual semiotics of signage in a BART station in Oakland, CA. The three related pieces of signage originate from a non-profit environmental organization, WildAid, and feature animal-celebrity pairs in a campaign against wildlife trafficking. Through MMDA and geosemiotic analysis, I uncover linkage between the transit signage, culture and literacies, as well as the mutual interaction among culture, literacy and semiotic choices. This approach reveals signage designer expectations of viewers within the transit space.

Chapter 5 examines the social space of the interior of buses in Oakland, CA. It includes two sections: the first is an analysis of multilingualism and social semiotics, while the second is a chronicle of a bus ride. The latter includes events and observations to provide a narrative of activity in the space where the signage is found. Chapter 5 provides a transcript with notes on modes that researchers such as Shohamy (2015) urged LL researchers to take into account. Though not permanent like the printed word, the sights, sounds, smells, speech and movement inform and are informed by the transit space and the viewer's perception of signage.

Chapter 6 presents an analysis of a piece of signage from a subway station in Japan. From the use of semiotics in the poster, the transit authority made clear that it tailored the message exclusively for a Japanese audience. This is a "manner poster," which aims at

promoting etiquette on transit. The poster not only reflects culture and literacy within the transit space, but also instantiates them. Accordingly, I use MMDA as a lens to gauge the relationship between culture and semiotic use in a non-Western setting. I consider how the interaction of indexicality, modality, and language draw the viewer into the text. The analysis complements and extends studies on Japanese linguistic landscapes. The chapter ends with a discussion of implications for literacy, culture, and language education.

Research Questions

The study investigates the following research questions:

- 1) *How does public transit signage reflect and create culture in Japan and the United States?*
- 2) *How does semiotic usage in signage vary across cultures?*

Through answering these questions, the research aims at extending the understanding of the relationship among transit signage, culture and literacy.

Researcher Positionality

I chose this research because it aligns with my personal background. As result of regularly riding buses and trains in North America and Japan, I was able to surmise the connection between culture and semiotics. My direct experience on transit notwithstanding, there remains the matter of the validity of analysis by a cultural outsider. I grew up in the United States. What insight can a non-Japanese offer about Japanese signage?

Because of the exclusive nature of Japanese society, I could never be treated as an insider and therefore I will never have knowledge and perspective borne of the insider experience. However, I am not a complete outsider with respect to Japanese culture. Through long-term

residence and study, I have gained a firsthand background in Japanese culture and language. Such knowledge is indispensable for my form of researcher. Knowledge of language and culture enhances the acuity of multimodal mediated discourse analysis. Moreover, the general regularity and stability of semiotic resources in a community (Kress, 2010) allow researchers to make inferences about a culture. In my experience, the more familiarity that one has with a culture, the more aligned their inferences are with those of cultural insiders. However, it is not my aspiration to produce an analysis identical to that of cultural insiders. My research objective is to understand the linkage between culture and semiotics within transit signage and the geosemiotics of transit space.

Contexts, Participants, and Data Collection

The research site is public transit, which includes the interiors of buses, train carriages, and stations in the United States and Japan. Transit space is characterized by signage employing semiotic resources according to communication conventions of signage designers and viewers from many backgrounds. Because it informs and is informed by them, public transit signage captures a snapshot of culture and literacy in a stable but not static way, persisting in the transit space long enough to make an impression yet changing to reflect new ideas and attitudes in a community.

Note that in this research, the term *participant* refers to people depicted in a text. The participants in this study are not living human beings but images.

Transit Contexts

Between 2017 and 2019, I collected almost 800 photographs of more than 150 pieces of transit signage in Japan and the United States of America. I focused on public transit systems in the San

Francisco Bay Area and the cities of Sapporo and Tokyo, Japan. My rationale for this selection is that I have lived in the areas, am conversant in the cultures, and have extensively used the transit systems. Moreover, English is my first language, and I am fluent in Japanese.

I collected data in the field through digital photography. Photographs of copyrighted material should be legal for non-commercial purposes (cf. Blanco Ramirez, 2016). My photographs did not capture other passengers. The Indiana University Institutional Review Board determined that participant consent was not necessary.

Data collection procedures, the lynchpin to qualitative research, determine the phenomena the researcher encounters and guide the sense-making process (Charmaz, 2006, p. 15). For the sake of robust theory, I aimed at gathering a variety of signage, but with no expectation that the data were representative of transit signage in general or of the culture and literacy. Like Blanco Ramirez (2016), I rode multiple trains and buses on each system with the expectation that differences in ridership could manifest in signage. For example, more affluent riders such as commuters in the Bay Area tend to ride train systems, while local riders use the bus. I attempted to collect photographs at intervals to allow for changes in signage and a more varied data set. In my experience, transit signage was dominated by specific advertising campaigns for a period, often tied to an event, season, or holiday.

I rode trains and buses when they were less crowded in order to take photographs unobstructed. One concern was that the movement of the bus would make photography difficult. It was easier to gather data during a layover at the end of the line, where the driver stopped for a break. I then boarded a bus, took photos, and waited for the next bus to stop on layover. I collected clear photographs without having to travel.

It was difficult while in the field to predict which pieces of signage would prove informative, so I reviewed data during collection in order to gauge variety in themes and in participants (i.e., images of people in the text). It was not possible to ensure that participants in my dataset were representative of the culture. I coded data after each collection session to refine theory incrementally. Because semiotic usage varies across cultures, theory developed from data in one culture could fit poorly with semiotics in other cultures. As new questions arose during data examination, I was able to apply them to data collected earlier as well as to refine coding in light of patterns in data collected later.

Japan

Japan has a large proportion of the busiest train stations on the planet (Blaster, 2013), with 15 billion rail passenger journeys annually (Fisch, 2018; MLIT, 2020). I took photos inside Tokyo Station, one of the largest stations in Japan. In Sapporo, Hokkaido, where I lived and rode public transit for many years, I collected photographs of signage from subway stations, including Odori Station, Nishi 18-chome Station, and Makomanai Station.

Oakland, California, USA

Bay Area Rapid Transit (BART) is an intercity heavy rail system that celebrated its 50th anniversary in 2022. It has five major lines: Red, Orange, Yellow, Green, and Blue. Trains come every 10-20 minutes. The stations have signage on the walls across the tracks from the platforms. The interiors of the cars have about 10 pieces of signage on the walls next to the doors and at the end of the cars. The interior signage is usually the size of a large poster and made of paper, but newer trains have video screens. Next to each door are also fixed notices from the transit

authority “to provide information necessary for safe and efficient journeys and to notify passengers of expected behavior” (Lock, 2003, p. 197).

I collected photographs of signage at 12th Street Station, 19th Street Station, and MacArthur Station in Oakland, California. Within the train carriages, I collected data on the Antioch-Millbrae Yellow BART line and the Richmond-Daly City Red BART line.

Photographing Signage

For the sake of accuracy and completeness, I took several photos of each instance of signage. For elements too small to be visible or legible in a full frame shot, I took close-ups of the signage. In some locations, I took pictures of the space around the signage because the signage made reference to it. When placement did not inform the content of the signage, I usually did not photograph its surroundings.

Types of Transit and Locations

2017. In December 2017, I took 12 photographs of 12 pieces of signage on AC Transit in Oakland, California.

2018. In August 2018, I took 36 photographs of 17 pieces of signage on BART in Oakland. In Sapporo, Japan, I took 243 photographs of over 50 pieces of signage on the subway system. In September 2018, I took 66 photographs of 15 pieces of signage on AC Transit in Oakland. In October 2018, I took photographs on public transit systems in the San Francisco Bay Area: BART (Bay Area Rapid Transit—a train system). I collected 104 photographs of 16 pieces of signage.

2019. In January 2019, I collected data in Japan, and the San Francisco Bay Area. At Tokyo Station, I took 45 photos of five pieces of signage. On the BART system in the Bay Area, I took 56 photographs of 14 pieces of signage. The table below summarizes data collection activity.

Table 3.1 Data Sources: Photographs of Signage by Location

Year	Location	Pieces of Signage	Number of Photographs
2017	USA	12	12
2018	Japan	50+	243
	USA	48	206
2019	Japan	5	45
	USA	50+	289
Totals:		150+	795

Selection of Data Location

I cast a wide net in gathering data, as it was not evident which pieces of signage would prove the most revealing. I prioritized data according to the likelihood of viewing by passengers. First, I chose signage on the walls of stations, particularly those near highly trafficked areas such as platforms, where passengers wait for the train. Because of the wall space available and the viewing distance, signage on platforms tends to be larger and easier to photograph clearly. Other high-traffic areas include the walls next to the tops and bottoms of escalators, elevators and stairs. On the vehicles, I chose signage from all parts of the interior. I looked for signage that

appeared in more than one language since it addressed viewers from different cultural backgrounds.

Selecting Signage for Cross-Cultural Comparison

Because of its potential to reveal cultural differences, I looked for signage with analogs in different countries. Transit systems impose rules for the sake of safety and courtesy, the latter of which is culture-bound by its nature. Rules and their form of expression thus can expose points of cultural divergence. However, signage is not indicative of passenger behavior in the transit space; in fact, signage is sometimes not warranted because of culture. For example, Japanese subways do not usually post an explicit ban on drinking or eating because Japanese culture frowns on such behavior in public places. In contrast, US transit systems do feature signage expressly prohibiting eating and drinking and can include mention of local ordinance and concomitant penalties. I have rarely witnessed passengers on Japanese public transit eating or drinking, but I have seen passengers in the US do so in contravention of prominent signage. In Japan, cultural strictures act as invisible signage. I would not be cognizant of the absence of such signage were it not for my experience on non-Japanese transit. The lack of signage in Japan could lead foreign passengers into presuming that eating and drinking are sanctioned. Likewise, since overt prohibition on US transit does not prevent behavior, a cultural outsider riding transit could conclude that the US has a culture in which signage and the associated laws behind them have little authority. In short, signage cannot tell the whole story of the transit space. Observation of passengers is necessary for a complete cross-cultural comparison.

Low-context vs. High-context cultures

Cultures vary in communication style along a spectrum from low-context to high-context (Hall, 1976). Low-context communication incorporates most information explicitly, while high-context communication features most information “in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message” (Hall, 1976, p. 91).

This heuristic for categorizing communication style is helpful in cross-cultural comparisons with the caveat that no lived culture exists solely in the high- or low-context category (Hall, 1976).

In low-context cultures, language generally furthers informational goals rather than social ones (Cohen, 1997). Accuracy is paramount, so meaning is rarely left implicit while indirection is abhorred (Cohen, 1997). In high-context cultures such as Japan’s, communication epitomizes language as characterized by social semiotics. Language transmits information while serving social goals: “[People] know that whatever they say will be scrutinized and taken to heart...Directness, and especially contradiction, are much disliked...Truth is not an imperative when a lie avoids unpleasantness.” (Cohen, 1997, p. 32). Forms of communication have intrinsic meaning, so “[t]o misuse them is a communication in itself” (Hall, 1976, p. 113). For members of such cultures, greater distinction is made between outsiders and insiders (Hall, 1976, p. 113).

Not surprisingly, disparity in communication styles can leave members of different cultures at a loss. The relative priority of relationship maintenance by way of interaction generates misunderstanding. The blunt style of low-context messages border on callous effrontery, while the subtle style of high-context messages seem inefficient, enigmatic, and devious.

An artifact of culture, transit signage reflects its low- or high-context origins, with messages matching cultural expectations of the viewer. In a lower-context setting such as the US,

signage uses direct language with no ambiguity. Laws and rules are declared explicitly so that the viewer has no doubt about intention. In Japan's high-context setting, signage couches behavior expectations more as suggestions in order to keep the relationship with the viewer on the proper footing. The aim is to furnish enough information but leave some for the viewer to infer (Hall, 1976). To be overly explicit implies obtuseness on the viewer's part: "It is very seldom in Japan that someone will correct you or explain things to you. You are supposed to know, and they get quite upset when you don't" (Hall, 1976, p. 112). Failure to make the proper inference from signage would be deemed the viewer's fault, not the designer's.

Data Analysis Procedures

The geosemiotic framework comprises three semiotic systems: visual semiotics, place semiotics, and interaction order (Scollon & Scollon, 2003). As the name implies, visual semiotics deals with the visual nature of texts (Zhao, 2021). Place semiotics deals with how emplacement and spatial organization generate meaning (Zhao, 2021). Interaction order describes the expected behavior and arrangements of social actors (Zhao, 2021).

Visual Semiotics: Analyzing Images

Modal analysis delves into many facets and details of a text. For the sake of brevity, I will explain modal analysis in greater depth in the chapters covering the research findings and analysis.

To analyze the poster data, I used ATLAS.ti, computer-assisted qualitative data analysis software that allows multicolored coding of text and image. I loaded photographs of the signage into ATLAS.ti and applied codes. First, I coded each poster for overall themes and impressions. After assigning codes at the macro level, I began coding elements within each poster at the

modal level (e.g., image, font, typeface, color, and text). I coded elements for the position within the poster frame: top, bottom, right, left, and center. I coded participants for ethnicity, gender, facial expression, and direction of gaze. I coded text for objective features such as font, capitalization, relative size, and color; and for subjective features such as tone.

I then examined and wrote memos about interaction between elements. In Microsoft Paint, I marked areas of intermodal activity on the photographs. I looked for modal density and modal intensity emerging as a result of intermodal dynamics.

Layout of Signage

The starting point for examining a piece of signage is layout because it provides a guide to the viewer. The location within the frame provides an order of viewing and a hierarchy among elements. Since English is read left to right, top to bottom, English speakers treat the upper left corner as the starting point for interpreting a piece of signage.

The following step is to consider the depth position of elements. Which are in the foreground and which in the background? Designers impart greater priority to foregrounded elements by manipulating relationships among modes such as placement, color, or size. The next step is to consider what elements are included and excluded and why.

Participants in Signage

In visual semiotics, human figures are called participants. Because viewers relate readily to participants, signage with human figures is far more compelling at conveying a message than signage without. Human figures tend to be foregrounded because they are more effective than other types of elements at drawing viewer attention. Textual analysis requires careful attention to participants, from which cultural attitudes can be inferred. Not only the portrayal of people but

also the presence or absence of certain types of people reflect cultural attitudes, at least from a designer perspective. In Japan, people not of typical Japanese phenotype comprise a small percentage of the population, so their presence in signage alone becomes compelling to viewers.

Metafunctions

Halliday's three metafunctions are the *ideational*, the *interpersonal*, and the *textual* (Halliday, 1994). Universal across communication, these forms of meaning-making inhere in all semiotic modes and fulfill social interests differently (Unsworth, 2006). The ideational metafunction creates representations and naturalizes reality (Jewitt & Oyama, 2001; Unsworth, 2006). It is concerned with "people, animals, objects, events and circumstances involved" (Unsworth, 2001, p. 10). It represents aspects of reality as human beings experience it and makes sense of the experience (Halliday & Matthiessen, 2004; Kress & van Leeuwen, 2006).

The interpersonal metafunction enacts social interactions as social relations (Caple, 2013; Unsworth, 2006). It represents the connection among "the producer, the viewer and the object represented" (Kress & van Leeuwen, 2006, p. 42). The interpersonal metafunction fosters "interactions between writers and readers or speakers and listeners" (Jewitt & Oyama, 2001, p. 140) and deals with "power, attitude, affect ...defining the relations among the participants" (Unsworth, 2001, p. 10).

The textual metafunction organizes text, conveying "the relative emphasis and information value of aspects of what is being communicated" (Unsworth, 2001, p. 10; Unsworth, 2006). It collates "the individual bits of representation-and-interaction into the kind of wholes we recognize as specific kinds of text or communicative event (advertisements, interviews, dinner table conversations, etc.)" (Jewitt & Oyama, 2001, p. 140).

Place Semiotics and Interaction Order

I analyzed the data for the geosemiotic systems *place semiotics* and *interaction order* (Scollon & Scollon, 2003). To understand place semiotics, I looked how the signage was placed within the transit space and how the signage and space indexed each other. To understand interaction order, I looked for semiotic elements in the signage that indexed the viewer. With an eye toward the connection between semiotics and culture, I searched for indexes pertaining to behavior not only within but also beyond the transit space.

Field notes

I made field notes during a bus ride through Oakland to understand place semiotics, visual semiotics, and interaction order on the bus (Scollon & Scollon, 2003). I used a two-column format: one column listed descriptions of people, objects and events, while the other contained interpretations of the corresponding description. Descriptions included people, their identity, their clothing, their speech acts, and their behavior. I looked for behavior related to signage content, such as violation of posted laws and rules. I was attentive to language and interpersonal interactions that reflected the transit space. I also noted factors such as smells, ambient sounds, and the feel of the bus in motion.

Conclusion

This chapter has explained the particulars of the research methodology. It began with a description of multimodal discourse analysis and geosemiotics while explaining how these approaches are effective at revealing the nature of transit signage. It provided information on my positionality: namely, that I have extensive background with the culture and language at the data sites, but I do not have insider knowledge.

The chapter offered details about the transit systems in Japan and the United States and my data collection within them. I described how I chose signage within the transit space and how I took photographs. I laid out my heuristic for analyzing the text, such as considering the layout, the participants, and the metafunctions at work. The chapters that follow delve into the research findings and analyses.

Chapter 4 Visual Semiotic Analysis of a Set of Posters in a Transit Location

This chapter examines public transit signage for an advertising campaign from an organization dedicated to protecting wildlife, WildAid. The analysis focuses on three posters, each featuring a celebrity paired with a wild animal. By way of multimodal mediated discourse analysis (MMDA), the chapter analyzes how the posters combine semiotic resources to mediate a message related to the celebrity's identity and the characteristics of the animal.

To collect data, I took photographs with a digital camera of signage inside train carriages and inside three Bay Area Rapid Transit (BART) stations (12th Street Station, 19th Street Station, and Lake Merritt Station). My goal was to capture as much semiotic and thematic variety as possible. The signage addressed a range of themes, many related to social causes such as tobacco cessation, energy conservation, foster care, youth mentorship, and environmental protection. The participants (i.e., people depicted in the signage) spoke to the diversity of the Bay Area.

After reviewing the dataset, I chose three posters sponsored by the organization WildAid because they provide rich material for comparing and contrasting semiotic usage. Each poster presents one of a trio of celebrities (Yao Ming, Jackie Chan, and Danai Gurira) in different but thematically related actions to mediate a message about human responsibility to the animal world. These data featured both unity and variety around a single, socially related subject: wildlife protection.

Content of Three Posters

What follows is a discussion of the posters and their content. Variations on a single message, the posters display similarities and differences. First, I talk about the characteristics common to all three posters, then consider the posters individually.

Template

Part of an advertising campaign, the three posters follow a template: Each includes the campaign slogan (*Wildlife trafficking is everyone's problem*), the organization's name (WildAid), the celebrity's name, and the organization's web site address (wildaid.org). The two participants, one animal and one human, are touching or in proximity.

The campaign has a relatively consistent tone across the posters. The color scheme is subdued, imparting a somber tone. The language stresses urgency and describes a defensive posture (e.g., “fight back,” “protect”) as if sounding a battle call. One variation across posters is that the human facial expression is chosen to match the interaction with the animal counterpart, not the slogan and color scheme.

The human-animal duo is an instance of incongruity “often used in public service advertisements to create messages that work against viewer expectations” (Cartwright & Sturken, 2001, pp. 60-61). Semiotic elements that bear no clear relationship produce a deliberate “deviation from viewer expectation [that] causes viewers to pay more attention” (Ma, 2005, p. 12). Repeating a motif such as the human-animal duo enhances user familiarity with the message, while variation within the motif elicits renewed attention (Cartwright & Sturken, 2001).

The space framing the participants is of low modality, deficient in depth and contextualization (Kress & van Leeuwen, 1996). The muted background of grays and browns offers no markers of location, that is, no *provenance* (Kress & van Leeuwen, 2001). The abstractness serves the ideational metafunction (Kress & van Leeuwen, 2006): It establishes a reality where behavior can depart dramatically from the norm. In our experience, wild animals and people do not mingle. In nature, humans and animals would likely be adversaries or

competitors, while in zoos, barriers would separate animals and humans. However, in this nondescript setting, implausible participants can encounter each other on unorthodox terms. The viewer can disregard logic and experience and accept wild animals and human beings as allies.

Text

The campaign slogan claims that wildlife trafficking is “everyone’s” problem. The framing of the issue is a form of appellation (Rose, 2001), which can be used to emphasize “its audience’s difference from other social groups” (Ma, 2005, p. 15). In this case, “everyone” is universally inclusive, leaving the viewer effectively undistinguished. However, viewers that agree with the slogan might credit themselves as exceptional for harboring the same sentiment. Elevated viewer self-esteem could strengthen viewer identification with the organization’s cause.

The web address (wildaid.org), an index away from the poster, serves many purposes. First, it conveys the status and motives of the organization: the web address extension *.org* is allocated to non-profit entities, assumed to have altruistic intentions. Second, it reflects the fact that online communication supersedes transit signage for explaining social issues. The phrase “Learn more at wildlife.org” acknowledges that the poster is a fillip to elicit further research by the viewer.

Typeface and Font

Typography functions as a semiotic system on par with the meanings of words themselves (Machin, 2007, p. 86). Text in signage can act as the newspaper headline, whose typeface “should reflect the tone and spirit of the story” (van Wagener, 2005). The choice of font in this ad campaign is striking: The signage designers subtly deprecate prose by choosing a font that demands viewer attention but overshadows the message. The capital letters shout at the viewer

but reduce legibility, as the block-like letters become less distinguishable from each other (Machin, 2007; van Wagener, 2005). Boldface heightens the drama of the slogan. In effect, the emotion of urgency supersedes the clarity of the prose. Language defers to presentation.

Modal Salience

Modal composition is “the hierarchical structure that communicative modes occupy in any given mediated action or message” (White, 2010, p. 371). Modal hierarchy helps viewers prioritize information. In the WildAid posters, the dominant mode is image, followed by gesture, gaze, and posture. These modes radiate meaning that inform the prose elements.

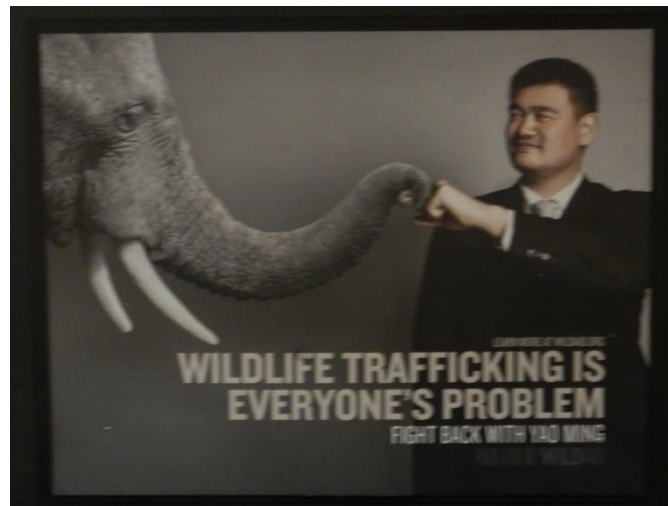


Figure 4-1. Yao Ming and elephant in WildAid poster



Figure 4-2. Jackie Chan and pangolin in WildAid poster

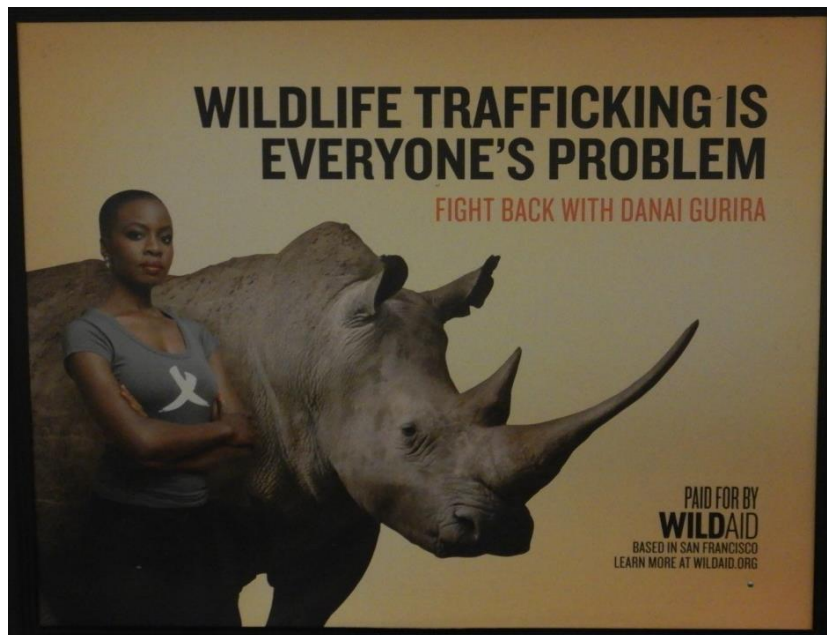


Figure 4-3. Danai Gurira and rhinoceros in WildAid poster

Yao Ming and Elephant

Description

Yao Ming (figure 4-1), a retired NBA player from China, is famous for his height (7'6"). Off the court, he has a history of promoting wildlife protection, including elephant conservation ("Brought to tusk", 2012). In other collaborations with WildAid, he has campaigned to discourage Chinese from eating shark fin soup (Hinckley, 2016).

Yao Ming shares the frame with an elephant, with whom he is making eye contact. The beaming Ming has his fist raised across his body to shoulder height. The elephant reciprocates the gesture of camaraderie by touching Ming's fist with the end of his trunk curled to emulate a fist. In order from top to bottom, the prose on the poster states: *Learn more at WildAid.org; Wildlife trafficking is everyone's problem; Fight Back with Yao Ming; Paid for by WildAid.*

Though just the upper half of his body is visible, Ming dominates the frame. Only the elephant's face and trunk are visible, while the animal's enormous body is strategically concealed out of frame. The composition choice serves to alter the indexing of other modes (Machin, 2007): The cropping of participants focuses viewer attention on other semiotic elements. In this case, it guides the viewer's eye toward interaction between Yao Ming and the elephant.

Composition

Composition is a semiotic mode that can alter indexing of other modes (Machin, 2007). The cropping of participants is a composition choice whose effect is to focus viewer attention on

other semiotic elements. In this case, it guides the viewer's eye toward interaction between Yao Ming and the elephant.



Figure 4-4. Sequencing of semiotic elements in Yao Ming poster.

Order of Analysis

The viewer's eyes pass through the textual elements in the sequence indicated in figure 4-4. The sole human face, highlighted for emphasis, attracts the viewer's attention first. The viewer, following Ming's gaze to determine where he is looking, then sees the elephant. Next, the viewer's gaze travels along the elephant's trunk to the two participants' point of physical contact: the tip of the trunk and the fist. Lastly, the viewer's gaze visits the block of prose at the bottom of the frame, at which the elephant's tusks are pointed.

Modality

Modality refers to the credibility of an image. For example, the fidelity of representation of a high-grade color photograph epitomizes high modality (Unsworth, 2006, p. 67). In this text, the two participants appear lifelike, characteristic of high modality. Accuracy of detail notwithstanding, their depiction is inconsistent with reality. Their comparable height poses an anomaly that calls into question the text's level of modality. In the viewer's experience, human beings are too short to stand eye-level with an elephant. Yao Ming is a plausible exception: Renowned for extraordinary height, he can be portrayed face-to-face with a giant animal. The composition reinforces an ideational meaning (Caple, 2013): The human and the elephant, positioned eye to eye, enjoy equal physical stature. The parity implies that they are peers. The incongruous ideational meaning attenuates the text's high modality but allows an interpersonal meaning to emerge. Namely, Ming and the elephant "see eye to eye," an index to their shared dedication to wildlife protection. The social bond between the two participants invites the viewer to form a similar bond with wildlife, or to "enter into some kind of imaginary relationship with" the participants of the signage (Kress & van Leeuwen, 1996, p. 122).

Assessing the Yao Ming poster in terms of Halliday's metafunctions clarifies the social purpose of its incongruities. The depiction of human and elephant is an ideational meaning that violates our experiential and logical notion of the world, which does not include a person fist-bumping an elephant by the trunk. The poster conveys an anomalous interpersonal meaning as well by depicting a new social relationship: one between humans and wildlife.

The mode of gesture is a focal point for ideational and interpersonal meanings (Halliday, 1978; Kress & van Leeuwen, 2006). The elephant sinuously extends its trunk toward Ming, who reciprocates the gesture with an outstretched fist. The juxtaposition anthropomorphizes the trunk

and prompts the viewer to interpret its curled tip as the elephant equivalent of a fist. The two are engaging in a “fist bump,” a gesture echoed by their eye contact, that is, the mode of gaze. The complementary modes of gesture and gaze create a multimodal dynamic (Kress & van Leeuwen, 1996). The gesture’s central location in the frame amplifies its ideational and interpersonal meanings. The convergence of modes fosters high modal density, elevating this action to greatest intensity within the frame (White, 2010). The site of engagement becomes a site of attention (White, 2010).

The interaction between participants (i.e., human and animal) is an enactment of the interpersonal meaning, depicting social relations among viewer, producer and participants (Halliday, 1978). Here, the interaction between participants establishes a casual, friendly tone. Ming gazes at the other participant, but his stance is toward the viewer. He turns his face at an intermediate angle between the viewer and the elephant. Yao Ming seems to be the recipient, as if he had been standing there when the elephant came up to him to exchange a fist bump.

Text

In contrast to the other two posters, the primary text in Ming’s poster sits at the bottom of the frame, an area often associated with the ‘real,’ in contrast to the ‘ideal’ (Kress & van Leeuwen, 2006). The placement is strategic: it accommodates the stature of the two participants, whose heads crowd the top of the frame. The mode of composition mediates a figurative message of participants’ size. The composition choice here reinforces the poster’s hierarchy of modes: image supersedes text. It also points out geosemiotic constraints of the viewer’s space: presented with a range of signage, viewers need information arranged for rapid assimilation.

The gestalt of the advertisement presents a contradiction. There is an incongruity between the primary text element “Wildlife trafficking is everyone’s problem” and its insistent, dramatic

typeface on one hand, and the friendly interaction of the two figures on the other. An elephant is obviously wildlife, so juxtaposition with the word “wildlife” is not unusual. However, the scene does not depict or connote a crime (in this case, trafficking). The imagery is not ominous. The disparity in tone makes it difficult for “visual and verbal modes [to] work together to mediate the message” (White, 2010, p. 373) and for the modes to fuse into a single, unified multimodal communication (van Leeuwen, 2005). This is a case of ideational divergence, when “the ideational content of text and image are opposed” (Unsworth, 2006, p.63), or as McCloud (1994) puts it, “[W]ords and pictures seem to follow very different courses – without intersecting” (p. 154).

One reason for ideational divergence comes from the identity of the celebrity, Yao Ming. His image indexes how he achieved his fame: professional basketball. He is known for his height, not his fighting prowess. To pose him as a defender of wildlife invokes a protective role unaligned with the basis of his celebrity. In terms of modal priority, image, gaze, and gesture supersede prose, perhaps because the celebrity indexes viewer culture more effectively and serves better as an entry point to the text than does the message.



Figure 4-5. Sequencing of semiotic elements in Jackie Chan poster.

Jackie Chan and Pangolin

Description

The poster presents two participants: Jackie Chan and a pangolin. Chan (figure 4-2) is a martial artist known for his film work (Jackie Chan, n.d.) and has also participated in environmental protection efforts (Courtenay, 2005). A pangolin is a scale-covered nocturnal mammal that eats ants and termites with its long, sticky tongue. Because it is prized as a delicacy and as an ingredient in traditional medicine, the pangolin has become endangered (What is a pangolin, n.d.).

Jackie Chan is facing the front of the frame at an oblique angle. He has his fists raised in a combat stance. On his back is a pangolin, facing the viewer and raising its right forelimb. As Chan is not looking at the viewer, his image is an *offer*, by which the viewer is presented participants “as items of information, objects of contemplation, impersonally” (Kress & van Leeuwen, 1996, p. 124). In contrast, the pangolin presents a *demand*, through which “the participant’s gaze (and the gesture, if present) ... demands that the viewer enter into some kind of imaginary relation with him or her” (Kress & van Leeuwen, 2006, p. 118). The prose states, from top on the poster to bottom: *Wildlife trafficking is everyone’s problem; Protect Pangolins with Jackie Chan; Paid for by WildAid; What’s a Pangolin? Learn more at WildAid.org*. The font usage in the organization name “WildAid” contrasts with the rest of the text. To compensate for the lack of a space between the words, the designer uses boldface for “wild” and plain typeface for “aid.” Not only are the words easier to parse, but also the emphasis on the word “wild” makes the organization’s name and purpose easier to retain.

Order of Analysis

The viewer’s logical entry point to the text is the human face (figure 6), inasmuch as human participants are the most effective sign for drawing viewer attention (Kress & van Leeuwen, 2006). Chan is garbed for martial arts, his black clothes lending him a solemn, funerary air. Chan is facing right, the direction associated with what is to come (Kress & van Leeuwen, 2006). Chan’s gaze acts as a focalizer (Rose, 2001), indexing the future. He is gazing into the middle distance at something past the edge of the frame. Chan’s clothing and bearing act as a portentous omen, leading the viewer to surmise the unseen entity to be a threat. The light source for the image is positioned on the right as well, thereby emphasizing what Chan is confronting.

The second element that the viewer notices is the pangolin. Though the pangolin is small compared to Chan, its color contrast offsets its diminutive size and augments its salience (Kress & van Leeuwen, 2006). Their images combine to form a joint index: The pangolin's tail extending down Chan's arm looks reminiscent of the queue that Chinese men wore until the end of the Qing dynasty (Godfrey, 2011). Indexing the historical hairstyle associates the pair with Chinese culture and heritage.

The pangolin's gesture also draws the eye and invites interpretation. In other settings, the pangolin's raised arm could be interpreted as a greeting. However, in a pose with a famous martial artist, the gesture indexes combat, especially since the claws are extended as if for attack. The pangolin is emulating Jackie Chan. The pose is comical coming from the small, innocuous pangolin, which could be mistaken for a mythical creature or cartoon character. For film buffs, the interpersonal meaning of the oddball duo indexes an interpersonal meaning from Chan's film repertoire. Chan has starred in movies with a humorous but ineffectual sidekick, the role filled here by the pangolin.

The viewer then notices the text at the top of the frame, followed by the block of text in the lower right corner. The latter is situated at the end of a downward diagonal line that goes from Chan's head along the pangolin's tail and Chan's left arm to his hand. The implied vector guides the eye to the text, *What's a pangolin?* The question suggests that designers have anticipated the viewer's curiosity about the exotic creature. Of the three posters, this is the only one whose animal needs explicit identification: "Protect pangolins with Jackie Chan."



Figure 4-6. Sequencing of semiotic elements in Danai Gurira poster.

Danai Gurira and Rhinoceros

Description

Danai Gurira (figure 4-3) is a film actress (Danai Gurira, n.d.), born in the US and raised in Zimbabwe, a country with an endangered rhinoceros population. Gurira is in the foreground, next to a rhinoceros just behind her. Gurira’s body is angled to the viewer’s right and parallel to the rhino’s body. She is gazing at the viewer and has her arms crossed in a determined, protective stance. From top to bottom of the poster, the prose states: *Wildlife trafficking is everyone’s problem; Fight back with Danai Gurira; Paid for by WildAid; Based in San Francisco; Learn more at WildAid.org.* The words “Based in San Francisco” occur in this poster only and provide a local provenance for the message and the organization.

Order of Analysis

The composition leads the eye on a tour of elements as indicated by numbers in figure 4-6. First, the viewer starts with Danai Gurira, the human participant. Gurira's head is salient, her face highlighted for color and contrast to attract attention. Her head juts above the rhinoceros' body, which creates a line defining the lower boundary of the negative space behind Gurira's face. Gazing directly at the viewer, Gurira is making a demand (Kress & van Leeuwen, 2006). Gurira's posture modifies her demand: Her body is slightly turned away from the viewer, as if inviting the viewer to join in the "fight back."

The second element is the block of prose at the top of the frame, the location typically reserved for the 'ideal' (Kress & van Leeuwen, 2006). By association, the message represents the ideal, namely, that everyone accepts wildlife trafficking as their concern. Indentation of the second row of prose opens a negative space that invites the eye to fill with an appropriately sized element. The nearest is Gurira's face. The proximity fosters a fit between prose and Gurira, thereby forming a connection across semiotic modes. In this case, the link implies projection, "the quoting or reporting of wording or thoughts" (Unsworth, 2006, p. 63). It is as if the words belong to Gurira.

The third element that the viewer sees is the rhinoceros. The rhino and Gurira are side by side, as if allies. The pose speaks to interpersonal meaning. Their bodies face the right side of the frame, associated with the new and the future (Kress & van Leeuwen, 2006). The rhino's face occupies the frame's center, a place generally reserved for the element receiving the most focus (Kress & van Leeuwen, 2006). However, because the rhino is behind Gurira, it shifts toward the background. Unlike Gurira, the rhino makes a demand not an offer, and does not insist the viewer enter into an imaginary relationship (Kress & van Leeuwen, 1996). The ideational

meaning sets up an interpersonal meaning with two steps: The viewer has a relationship with Gurira, who in turn is the protector of the rhino. Through this connection, Gurira becomes a proxy for the viewer in the fight to protect rhinos.

The rhino's longer horn limns a negative space. The horn's prominence and length implies a line that extends and bounds the right edge of the prose at the top. The effect draws the viewer's eye to the nearest new element, the rhino's head. The rhino's gaze directs the viewer toward the next element, the prose in the lower right corner. The stair-stepped left margin of the prose mimics the diagonal line of the rhino's horn. The implied parallel lines lead the two elements to merge across the empty background space.

Discussion of Poster Meanings

I aimed at answering two research questions: The first addresses the way that public transit signage reflects and creates cultures, while the second is about variation of semiotic usage across cultures.

The signage offers evidence of local culture. From the data set I collected, I noticed a common theme of public interest, with which the WildAid posters align. The prevalence of such signage suggests that BART is considered a forum for such messages. That is, public interest messages are culturally aligned with public transit. Viewers might be more receptive to socially oriented messages in a public space such as transit.

The participants come from diverse ethnic and national backgrounds. Because they are internationally famous, their notoriety transcends cultural boundaries. Interpersonal meaning is more effective with a participant familiar to viewers. The exclusive use of people of color is noteworthy and could indicate that the designers aim at mediating the message to communicate according to local demographics. The pattern suggests a culture emphasizing inclusiveness.

The posters were exclusively in English, despite the appearance of celebrities whose first language is not English. Designers attended to surface-level diversity in choosing participants, but not to deep-level diversity among viewers in choosing language. A message ostensibly directed at “everyone” appears in only one language, a design choice that undermines the universality of the issue. The monolingual nature of the signage sends a message: on public transit, English alone is adequate.

The semiotics in the signage index a situation and social concern rooted in a distant context. By using the word “everyone,” the signage’s message (*Wildlife trafficking is everyone’s problem*) targets an inclusive audience. However, the words “Based in San Francisco” found in one poster invoke the organization’s local identity. The juxtaposition of universal message and regional provenance is an instance of global and local merging. In tackling a global problem, the organization establishes the issue’s local relevance. The collocation implies that the issue has meaning in the viewer’s context. Nevertheless, the wildlife depicted has no local presence, and viewers would perceive them as an abstraction. That is, the local culture is informed by broader issues. Local culture is characterized by awareness of global concerns. Transit signage serves as a forum for transnational issues, not just local ones.

The findings indicate that posters in public transit employ a structure of semiotic resources that interact in complex ways. Some multimodal posters followed a convention of visual grammar, while others departed from it. Exceptional usage reinforces the idea that grammar is not a set of rules applied to static codes, but a resource for making meaning. That is, grammar is a flexible guideline, not a constraint.

Conclusion

The study examined three pieces of transit signage from a non-profit organization, specifically posters that featured celebrities and animals supporting a campaign to protect wildlife.

Multimodal mediated discourse analysis (MMDA) revealed how designers used signs and modes to mediate a message for the ridership on the BART system.

Use of multimodal components

Through MMDA, I was able to assess the posters holistically and at the unimodal level.

Examining the gestalt of the posters produced an interpretation similar to that of the typical viewer, who, unlike researchers, do not deliberately parse the poster's individual elements but absorb posters in their entirety. In contrast, MMDA helped reveal the contribution of each semiotic mode. In particular, gesture, gaze, facial expression, and posture contributed to the posters' messages and played a critical role in communicating emotion. These modes operated intermodally, refining and reinforcing each other's effect.

Limitations

Positionality could have a greater influence than I realize. I am from the Bay Area but the culture of the community has evolved. I am no longer an active member in it and have not lived there in years. The perception of WildAid, celebrities, and the BART system might be different from what I assume. I examined signage featuring celebrities of color, people different from me in many ways. Though familiar with them, I know little about the connotations of their identity, especially for people of color. In addition, I am not conversant in the work of WildAid and how the organization compares to others championing environmental causes. It might have a strong local reputation because it is based in San Francisco.

Future studies

The signage is exclusively in English. It would be good to examine Spanish- or Chinese-language versions of posters in a similar advertising campaign. Other public-service signage in the Bay Area has multiple versions, each in a different language. They index different cultural knowledge. A further avenue of analysis is signage from other countries. This would provide better answers to the research question about culture. For example, it would be insightful to examine signage of a Japanese campaign to protect wildlife.

Chapter 5 Geosemiotics of Language Hierarchy and Multilingualism in US Transit

Introduction

This chapter examines the public transit experience of a bus ride through Oakland, California. It comprises two parts. The first part is an analysis of language hierarchy—the privileging of one language over another—in examples of multilingual signage on the bus, while the second part includes observations recorded during a bus ride. The signage is examined through the lens of multimodal mediated discourse analysis (MMDA). It includes information from the transit authority, an advertisement from a non-profit organization, a promotion from the public library, and a message from a public utility.

Transit Signage on a Bus in Oakland

This section addresses three pieces of multilingual signage. The first, found on every bus, is a multilingual notification about emergency exits. The other two, advertisements for public services, are perhaps a reflection of the social economic status of the bus ridership. The multilingual pieces of signage are evidence of attitudes toward language and the practical approach to accommodating language communities.

I chose this set of signage because it offers insight into multilingualism within transit space. The appearance of languages can influence viewer perception of a language in society (Cenoz & Gorter, 2008). Whether a language is present or absent in a space conveys a message regarding “the centrality versus the marginality of certain languages in society” (Shohamy, 2006, p. 110). The existence of languages within a space informs viewers about the existence of immigrant groups while indexing the respective identity of the groups (Cenoz & Gorter, 2008, p. 269).

Language Hierarchy Example One: Safety Information Sign



Figure 5-1. Multilingual Safety Signage on the Bus

I chose the diminutive piece of signage in Figure 5-1 because it reflects treatment of language hierarchy within a community and comes from an official source, AC Transit. Its installation, form and message are likely mandated by law. It states safety information in red font in three languages : *Emergency Exits are identified by red handles on the side of windows Locate your nearest exit.* The narrow confines of the space between the windows mandates a columnar format, which in turn imposes a hierarchy of languages. The signage captures the transit authority's attitude toward language: English is most prominent, followed by Spanish and then Chinese. In catering to three language communities, the transit authority conveys an awareness of the multilingual ridership but also denotes what languages matter. Since Oakland has many ethnic neighborhoods such as Little Saigon and Koreatown, it is reasonable to expect riders from

Vietnamese and Korean language communities.

Though the notice includes no mention of the source (AC Transit), visual and place semiotics cue the viewer to its official nature. The font is all capital letters, denoting an authoritative source. Its location (between windows at eye level), materials (metal vs. cardboard), and means of attachment (riveted to the wall of the bus) indicate its permanence within the space.

This notification indicates AC Transit's perspective on language: English is the most important, with Spanish and Chinese assuming lesser status. Other community languages were not deemed important enough for inclusion when the signage was fabricated. The signage reflects not the status quo of the language community, but the official perception of it.

Language Hierarchy Example Two: Use of Language

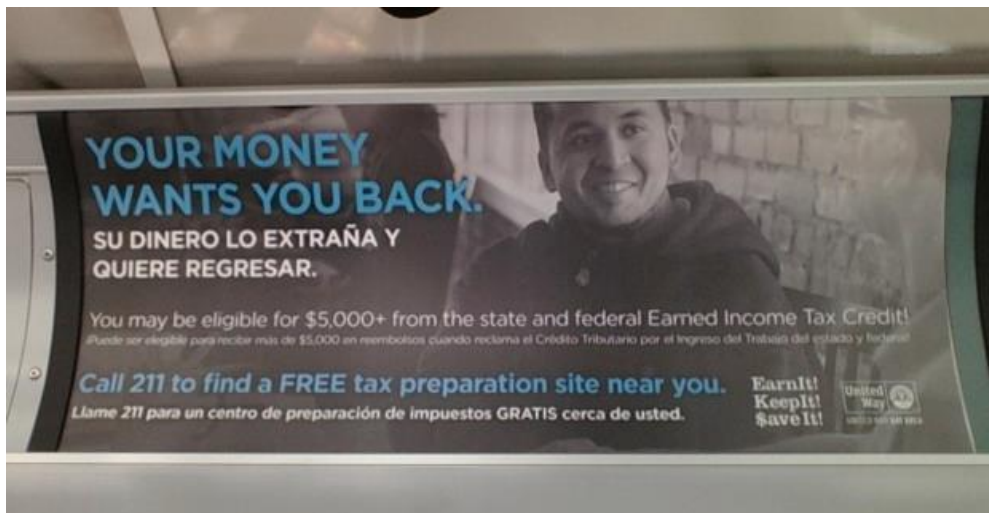


Figure 5-2. United Way – Bilingual Advertisement

The United Way advertisement signage in Figure 5-2 exemplifies language hierarchy in a predominantly English-speaking community. To analyze it, I begin at the top-left corner, the

starting location for reading English.

The text features multiple participants, but only one, a young man, has a fully visible face. This composition marks him as the focal point for the viewer. Placed along the horizontal axis of his eyes are the words *your money*, the entry point for text. The designers seek to direct viewer attention to a topic of universal concern: money. The composition of the signage exemplifies the impact of participant eyes for drawing viewer attention to an entry point. The participant's direct gaze, a *demand* (Kress & van Leeuwen, 2006), also creates a relationship with the viewer, "I'm talking to YOU." The targeted viewer would seem to be young, probably from a social economic status that would benefit from free tax advice.

The advertisement targets English- and Spanish-language communities, but clearly elevates one language over the other by way of placement, font size and color. Spanish and English are intercalated, but the latter consistently comes first in reading order. At nearly twice the height, the font for English towers over that of Spanish. Almost jumping off the signage surface, the vibrant, electric-blue English typeface contrasts more strongly with the monochrome background photo than does the white of the Spanish.

Modal usage reveals a tacit attitude of the sponsoring organization, the United Way. Acknowledging that the message could benefit non-English readers, the designers cater to a second language community but choose a format that subtly valorizes one language. The Spanish prose, seemingly an afterthought, is shoehorned between the English so as to not compete with it. This approach contrasts with that of other organizations that provide three versions of the signage, a separate one for each language. Often the versions are juxtaposed in the advertising space near the ceiling of the bus, thereby affording the languages equal status in the transit space. By using the same format, the United Way could have produced separate English and Spanish

versions, which would have put the languages on an equal footing and created a less crowded design. Budget constraints might have precluded multiple versions.

Language Hierarchy Example Three: Analysis of Discourse



Figure 5-3. Oakland Public Library: Trilingual Advertisement

The entry point to the signage in Figure 5-3, a public service announcement from the Oakland Public Library, is the words *Oakland* and *Hella Cool*, two elements with a natural association for many Oakland viewers. The diction is meant to elicit interest among younger passengers: *Hella*, a variant of hell of, is a mildly profane version of *really* that I often heard (and used) while growing up in Oakland. The mention of the 16-year-old's winning design indexes a younger viewership, among whom locutions such as *hella cool* would have currency. However, the expression *Hella Cool* does not jibe with the image of the library, which kids do not associate with coolness. Apposite diction notwithstanding, the signage is not likely to enhance a

youngster's perception of (or interaction order with) the library. The message feels like an adult interpretation of culture, not something immanent in youth culture.

Spanish and Chinese, though subordinate to English, share the same prominence in this multilingual signage. While the contest rules appear in all three languages, there is no translation of the catchphrase *Hella Cool*. Other languages likely have no culturally appropriate equivalent of the word *hella*, thus making it challenging to create Spanish- and Chinese-only versions of the signage. The result is that a multilingual version based on culture-bound language and literacy centers on the dominant language of the space. English is the dominant language in this version and parallel versions of the signage with only Spanish or Chinese are not present. Were there signage employing Spanish idioms and slang to attract the attention of Spanish speakers, English would probably take a subordinate position.

Language Example: Advertisement/Public Service Announcement: Use of Color



Figure 5-4. EBMUD – Drink from the Sink Advertisement

The transit signage in Figure 5-4 comes from the East Bay Municipal Utility District (EBMUD), the water utility for Oakland. The public service announcement promotes drinking tap water as a way to stay healthy, save money and protect the planet. The designers have chosen green as the overarching motif: environmentalism, money and youth are all “green.” The salient color green reinforces these associations. The green tones of the text background resonate with the shirt of the participant who is making eye contact with the viewer. By drinking water from the sink, the healthy boy embodies the greenness of his shirt and becomes associated with the message encapsulated in the green background. As the signage shows, color as a mode can set the tone of the text and unify elements and participants.

Transit Signage in Use: A Bus Ride in Oakland

This section presents a transcript of observations from a bus ride with commentary on the events. It is interspersed with semiotic analysis of the sensory environment of the transit space. The

transcript makes note of non-visual modes such as sound and smell that also inform the passenger experience but are usually not included in MMDA and geosemiotic analyses. I have included them in response to the call by various linguistic landscape researchers.

Transcript of a Bus Ride in Oakland in October 2017

Note: The abbreviations M and F stand for male and female, while B, L, and W stand for Black, Latinx, and White. Ex: WF means White female.

Record	Response
Board 57 line eastbound @MacArthur / Adell. Articulated bus. Time: 10:55 a.m.	This is the longer style of bus that tends to get more passengers. I'm sitting near the second of four doors, about six rows back from the front.
@MacArthur/Fruitvale. Off: 5 people, 2 with crutches or a cane.	The ride is bumpy. Plastic seats and tight shocks don't help. MacArthur Blvd has not been resurfaced in decades. The transit experience depends on city infrastructure.

Analysis. Geosemiotics considers space, which for semiotic landscapes is usually static. Public transit is distinct in that the space (i.e., the vehicle) is in motion. The feel of the moving conveyance serves as a mode, not one found within signage but one that contributes to the viewer's experience. In terms of geosemiotics, the place semiotics and the visual semiotics inform each other as a result of vehicle's movement.

Across the aisle sits a young LM with a hoodie. Just sitting, not using a phone.
10:57 a.m.

The weather is clear and cool. No need for air conditioning at this hour, but the bus smells of cheap cologne.

Analysis. The mode of smell has been overlooked in linguistic landscape studies. Because carriages are closed space, odor affects passenger experience. Moreover, odor sends signals about the community such as social class and quality of transit. In terms of geosemiotics, odor influences interaction order (i.e., how people move and behave within the space): Passengers arrange themselves according to odor.

@MacArthur/Coolidge.
On: AM, kid. Junior high school student?

11:00 a.m. is an odd time for a school kid to get on the bus. Is he coming from John Switt JHS?

@MacArthur/Maple
Street sign: 420MD.org

This is a medical marijuana organization. Is this sign targeted to people in this neighborhood, or to drivers on MacArthur?

@MacArthur/35th Ave.
On: BW 30's.
Off: LW 40's.

BW has shades, red kerchief on head.
No noise on the bus. 5 people + me.

Analysis. Sound is another mode that warrants attention in linguistic landscape studies. I noticed that the bus was quiet because usually there is some sound, whether passenger conversation, phone conversation, or music. In contrast, commuter buses, especially morning routes, are quiet, making for a pleasant journey. The space on local buses grants more relaxed behavior, while the intercity commuter buses expect passengers to maintain

the constructive, respectful silence of an office. In terms of geosemiotics, interaction order on the bus depends on the bus route and the time of day.

@MacArthur/38th

On: BM 20's. Has trouble producing bus fare. Asks LW 40's sitting by the front door, "You got a quarter?"

Driver and BM passenger exchange a few sentences. I'm not sitting close enough to hear the exchange, but the passenger seems to explain that he is not traveling very far. Driver lets BM on without full fare.

BM 20's (w/out fare) sits at the back of the bus.

Few people getting on or off. Five passengers + me.

@MacArthur/Seminary

Boxing club and martial arts club on corner

I'm not surprised that there are self-defense clubs here. Seminary Ave is referred to as "Cemetery" because of crime in the area.

@MacArthur/61st Ave.

Off: LM 30's that had been sitting across aisle from me.

Time: 11:08 a.m.

@Foothill/Church.

Off: BM 20's, BF 30's.

This is Eastmont Mall, a big shopping mall where the flatlands meet the hills of Oakland.

I get off at Eastmont Transit Center. I plan to get on the 40 line. The bus is stopped, and the door open. The driver yells at me, “Bus stop is over there! This is a layover! This is a layover! Bus stop is over there!” I walk over to the bus stop.

I didn’t see the layover sign. The layover space is where the bus stops for the driver to take a break. The bus pulls forward to a place for passengers to board.

The transit center is part of the transit space. It was easy to navigate with guidance from a bus driver, but the signage was not adequate for me.

@Eastmont Transit Center
I board 40 line at 11:15 a.m.
Bus driver (BM, 40’s) talks to another driver (BW, 40’s) who’s sitting by front door.

@Foothill/Church
On: LW, 30’s

@Foothill/Havenscourt
On: BW 20’s.

11:17 a.m.

@Foothill/64th Ave.
On: 5 Asians. 3 AF/1 AM, 60’s. All with shopping carts. Speaking Cantonese.

They sit in elderly/handicapped seats. All AF wearing soft sun hats, the kind that military special forces wear. Equipped for a shopping mission on a sunny day.

These passengers speak Cantonese, but I wondered whether they could read the Chinese signage. Passengers that cannot read signage need the information in another mode. Recorded announcements on the bus are often in English, sometimes in Spanish, but never in Mandarin or Cantonese.

<p>@Seminary/Foothill. LF across aisle from me (on my left). Her phone rings as she watches a video. Off: Driver who was riding as passenger.</p>	<p>Academy High School is on the corner. 11 passengers + me. Only one person is using a phone.</p>
<p>@Foothill/Cole On: BF, 20's. BM, 50's.</p>	<p>11:24 a.m. We pass another 420MD.org billboard. The weed outlet of choice for Oakland?</p>
<p>@Foothill/48th On: LF, 30's. She sits across from me.</p>	<p>In this neighborhood is the Oakland Free Library, with a sign in English, Chinese and Spanish.</p>
<p>@Foothill/45th Ave. Fremont Pool.</p>	<p>By Fremont High School</p>
<p>@Foothill/High Street. Oakland Charter Academy Middle School.</p>	<p>Bus quiet. No school kids. Only one person using phone.</p>
<p>@Foothill/38th Ave. Off: LF 20's</p>	<p>Recorded stop announcements are in English. It is unintelligible to non-English speakers. What other languages should be included? Signs with official fare information are in English, Chinese, and Spanish.</p>
<p>@Foothill/35th. Off: 3 AF with shopping carts.</p>	<p>11:31 a.m. We're approaching the Fruitvale district, which has the BART station where Oscar Grant was shot in 2009.</p>
<p>@Foothill/Fruitvale. On: LM 40's; LF, 30's.</p>	<p>Another 420MD.org billboard. Seems Oaklandish. For all your weedy needs.</p>

@Foothill/24th Ave.
Grocery store sign in three
languages (Chinese + Thai? +
Cambodian?).

Oddly, the bus smells like Scope
mouthwash, though the source is unclear.
Things have smelled worse on an Oakland
bus.

@Foothill/21st
On: BM 20's.

One AM 70's, one AF 70's
w/shopping carts still on the bus. 11:37 a.m.

@Foothill/13th Ave.
Sign: Berg Injury Lawyer

@Foothill/8th Ave.
Off: AM 70's, AF 70's.

BM is playing a lottery card.

On: BM, 30's.

@Foothill/5th
On: LM 30's. Sits across aisle from
me.

11:40 a.m.

@Foothill/3rd Ave.
Off: BW 20's.

@Lake Merritt/1st/International Blvd.
Off: BM 20's w/lottery card.

@12th Street. This is by the downtown
post office.
Off: LM 30's.

“Scottish Rite” is monogrammed on
his shirt. He spent the whole trip looking at his
phone.

@12th/Broadway.
I get off the 40 line bus. I board the
72R line westbound. I sit near the
back door. Driver: BM 30's, talking to
BF driver sitting by front door. They
seem to be talking about bus routes
and buses.

11:49 a.m.

@Washington/2nd Street.

The bus has a stopover here at Jack London Square. This is the end of the line. The BF driver who is a passenger says to the BM driver, as if talking to passengers, “Don’t *get* the bus. *Catch* it. ‘Cuz I’m leaving.” They are talking shop. She is using a large, red folding fan with tassels to cool herself. It’s a warm day and there is no air conditioning.

I explain to the driver that I just want to head along San Pablo Ave. They seem surprised that I don’t have a clear idea of my destination. I don’t reveal that I don’t have a set destination because I’m doing field work.

@Washington/2nd Street.

On: WW 60’s. She seems confused about payment procedures. Bus departs at 12:02 p.m.

She wanted to know about paying by IC card. Does she need to tap the card when she gets off? She had a foreign accent and did not seem familiar with the area. The driver tried to explain but she still seemed a bit confused. The signage probably would not have answered her questions.

@Broadway/3rd St.

On: WM 40’s. 2 BM 30’s.

@Broadway/6th Street.

A street sign “Bro way.” Someone has painted out the letters ‘a’ and ‘d.’

@Broadway/7th St.

On: AM 60’s, BM 60’s.

@Broadway/9th St.

Five police cars zoom by with sirens on. The bus driver pulls over to make room for the police.

This feels like a typical event in Oakland. Riding the bus in Oakland incurs the risk of exposure to crime. The police station is only a few blocks away.

Analysis. Ambient sounds such as police sirens become part of the semiotic landscape of the bus carriage. As the bus moves through a community, passengers are transient observers of the community's semiotic landscape. In terms of geosemiotics, ambient sounds are part of place semiotics, which concerns the meaning of modes according to emplacement in the space (Zhao, 2021). Police sirens, not remarkable in Oakland, remind passengers of their whereabouts.

@Broadway/12 St.

The five cop cars were at the BART station. Police closed a side street and were interviewing a couple of people.

@Broadway/14 St.

On: Many! WF 20's w/service dog. LW 40's using a large blue folding fan and wearing an "Impeach Trump" button. BM 50's w/SF Giants jersey, orange+white cloth hat, and small boom box. WW w/service dog says to him, "He's not going to bite you."

The folding fan has the characters 功夫, which mean "kung fu." She does not look like a martial artist.

The woman with the service dog doesn't seem blind since she's looking at her phone. I wonder what the service dog is for.

BM 50's is playing smooth jazz for the bus. This is an old-school Oakland bus ride.

Analysis. I know the driver can hear the music because my seat is right by the driver's. The driver does not try to enforce rules about music, probably because no passengers have complained. Besides, any request from the driver would likely be ignored. Summoning the sheriff for a minor violation would be out of the question. Alameda County sheriff deputies probably have more pressing matters than enforcing transit noise ordinances. In terms of geosemiotics, music is part of the interaction order and the place semiotics. The presence of music indicates that passengers are afforded leeway regarding certain rules. The driver's reaction (or lack thereof) shows that playing music is not necessary excluded from interaction order. The *de facto* interaction order is evident not from the signage but from direct observation. This event supports the contention that researchers should attend to non-visual modes to understand linguistic landscapes.

@San Pablo/West Grand.

BM 50's turns off boom box to talk on the phone. Once the phone call is finished, he turns the music back on. He dons a pair of shades.

Playing music on the bus was much more common when I was young. Someone at the back of the bus would set the mood by dropping a thick beat. With the spread of smartphones and earbuds, the ambient soundtrack is less common.

@San Pablo/40th St. Drivers change.

There are four drivers on the bus now! The driver that was just relieved chats with me and another passenger. He lives far away and commutes very early (3:30 a.m.) to Oakland. He explains why he thinks an earthquake is coming: just like in 1989, October has unseasonably hot weather, plus the Dodgers are in the World Series.

@San Pablo/45th.
Off: Three drivers.

The drivers are probably going to board buses to take a shift from other drivers.

@San Pablo/Stanford.
On: LF 30's with stroller. Board through back door of bus. Two kids in stroller sitting tandem.

One kid in the stroller keeps looking at me. I make faces to entertain him. He is a tough audience.

The bus smells like tobacco, though no one is smoking. 15 passengers + me. It's getting pretty warm. Five people on phones.

Woman w/service dog still on the bus.

@San Pablo/Grayson/Ward Street.
Across the street from the hydroponics shop is a sign on a telephone pole that says "Halloweed."

@San Pablo/Dwight.
Off: BM 20's. BM 40's with one huge dreadlock, like a ponytail.

The bus is quiet. Recorded announcement: "Approaching San Pablo and University."

Analysis. Smells from outside the bus such as the odor of tobacco in this case comprise part of the place semiotics. The presence of ambient smells and sounds signals the porous nature of the space, in contrast to public transit with windows that do not open. The recorded announcement exhibits place semiotics and interaction order. The audio message has a transient emplacement (i.e., through the air), in contrast to signage on walls. As for interaction order, passengers are expected to respond accordingly to stop announcements, which are only in English. The designers create an interaction order (i.e., a behavior) that is contingent upon rider literacy. A visual counterpart offsets the

monolingualism of the audio: an LED signboard at the front of the bus indicates stops in Roman letters.

@San Pablo before Delaware.

On: 6 school kids, early teens, people of color, though ethnicity unclear. They frequently use the N-word in their conversation.

I move to a seat closer to the back.

Across the aisle from me: woman w/service dog. She has tattoos: feathers on one arm, triple set of dots in a hex pattern, i.e., three hexagons made of hexagonal dots. Not sure of the significance.

I have to wonder about the source of these forms of address. Is it cool to adopt (or appropriate?) derogatory speech from modern music? Would they use these words with black people?

@San Pablo/Gilman.
Off: Woman with service dog.

The dog drooled on the floor. Still better behaved than many paying passengers.

@San Pablo/Solano.
The kids at the back of the bus are joking with each other. “911 cannot help you.” “911? This kid is trying to rape me.” One is eating a snack.

12:42 p.m. 17 passengers + me. Bus is quiet except for kids talking. The bus is hot, no A/C; mood is subdued. Woman with a large blue Kung Fu fan is still on the bus.

@San Pablo before Fairmont.
Off: WM 80’s.

@San Pablo/Portrero.
On: WM 20’s, beard, ponytail, skateboard.

He seems the very picture of a hipster.

@Del Norte BART.
On: BM 40’s, WF 30’s. She has two tattoos on each arm. On her leg, she has a tattoo of a heart inside the “no” symbol (i.e., diagonal line through a circle).

1:04 p.m. Where does this “anti-love” tattoo come from? She’s sitting next to the BM 40’s. They are interacting.

@San Pablo/San Pablo Dam Road.
Off: 6 people. BM 40’s and WF 30’s get off. WF says, “Thank you” to the driver.

8 passengers + me. 4 people using phones. Sudden smell of fried chicken on the bus, but no one is eating.

OBSERVATION ENDS

Discussion

In geosemiotics, it is important to consider not only the signage content and the intended message, but also passenger response and signage placement in relation to the landscape. The bus ride through Oakland provides insights into the non-visual modes within the space and the surrounding locations as well as into passenger interactions with and within the space.

The presence of multilingual building signage makes sense: the bus travels through neighborhoods featuring businesses serving different ethnic communities. As the transcript indicates, the passengers are likewise diverse. These instances of surface-level diversity hints at forms of deep-level diversity such as language. However, the signage does not fully represent the language profile of the ridership. Transit signage is perhaps not as representative of communities as is the signage found in the exterior linguistic landscape. Though not part of the carriage interior, exterior signage informs public transit geosemiotics. For example, the frequency of advertisements for cannabis dispensaries along the bus route underscored the importance of attending to signage outside the bus.

Passenger behavior is indicative of the signage's impact. Passengers seemed inattentive to the interior of the bus or the other passengers. Most spent time looking at their phones. One passenger played music in violation of the posted signage. No passengers complained nor did the driver intervene. Their behavior reflected an indifference to the signage.

The environment in which public transit operates can influence the passenger experience. In this observation, the buses traveled through Oakland, an urban environment notorious for its crime rate. From the city's reputation, one could assume that transit is perennially an unsettling, dangerous venue. However, at no time was there a sense of danger. At one point the bus drove past several police cars stopped at the scene of a crime downtown, but the group of transit employees on the bus never seemed concerned for their personal safety. At times passengers transgressed the law by playing music or eating, but other passengers never treated the atmosphere as threatening or irritating. Granted, the buses traveled in the middle of the day and were never crowded. The atmosphere might change at night with a different ridership or when the bus is full, forcing passengers to be in close quarters.

Conclusion

This chapter has presented multilingual signage and a log of observations from a bus ride through Oakland. The first part examined four pieces of signage: one from the transit authority, an advertisement from the United Way, one from the Oakland Public Library, and a public service message from East Bay MUD. The second part comprised a series of observations capturing passenger behavior and non-visual modes such as sound, smell and speech. The firsthand observations served as a complement to the signage data, which comprises only one aspect of the linguistic landscape. Researchers (cf. Shohamy, 2015) have called for LL researchers to include non-visual modes in their studies. This chapter is a start toward answering that call.

Transit signage did not speak *to* the community as much as it spoke *of* it. The multilingual signage on the bus reflected the language hierarchy as seen by the transit company and the advertisers. English was dominant, with Spanish and Chinese appearing as extras. Recorded audio information reinforced the hierarchy: safety announcements were in English and Spanish, while stop announcements were in English only. During my bus ride, billboards for cannabis dispensaries were frequent and prominent, implying a viewership readily interested in the product.

The analysis of the signage reveals the multilingual nature of the bus ridership as well as designer attitude toward it. Though at times languages enjoyed parity, English usually served as the focal point around which are oriented languages such as Spanish and Chinese. In a multicultural setting such as Oakland, the absence of community languages such as Korean and Vietnamese speaks to the options and obligations that signage designers face while raising questions about public transit as a linguistic landscape. What languages should be included? Is a

language included for utility's sake, or as a political nod toward various language groups? Does excluding a language inconvenience a substantial number of passengers? Do passengers care enough about transit signage to mind whether signage is in their language? These are questions that cannot be answered entirely through analysis of signage or observation of the space because designer intention and passenger reaction cannot be fully gauged through geosemiotics and MMDA.

From the observation log, answers to these questions can be inferred to some degree. Passengers did not show signs of attending to the signage. In fact, their behavior seemed entirely detached from the signage: they overtly engaged in behavior transgressing rules stipulated by signage. In light of this attitude, signage does not seem the most telling source of the transit space as the passengers experience it. From my observations, I conclude that signage design says less about passengers than it does about designer perspective of transit. For the most part, passengers acted indifferent to each other and sought to insulate themselves from surrounding stimuli. The attitude is prudent since a slow, uncomfortable bus ride offers little of interest and other passengers are unlikely to welcome being accosted by strangers.

Semiotic modes within signage impinge upon passengers' senses far less than do sound, odor and touch. Non-visual modes seem to play a greater role in informing the passenger experience. During my ride I heard the sound of music on the bus and police sirens outside the bus. The uncomfortable temperature and bumpy ride on plastic seats reflect the low-cost nature of public transit. Linguistic landscapes, more suitably called semiotic landscapes, contain a panoply of non-visual modes just as communicative as visual ones. LL researchers should devote more attention to understanding how non-visual modes inform the space and perform geosemiotic functions such as place semiotics and interaction order.

The events on this ride did not come close to the more memorable events that I experienced in years prior. I have been on an Oakland bus when the driver felt compelled to summon the sheriff because of aberrant behavior of passengers apparently under the influence of narcotics. I have seen a driver stop the bus at an intersection to wait patiently for a muscle car to finish a sideshow (i.e., doing doughnuts for bystanders' amusement). I overheard a conversation between a driver and passenger that illuminated just how reducing transit operating hours jeopardizes the passenger's ability to commute to a job and make a living. Though relatively rare, such events inform transit geosemiotics. None is reflected in signage, which can tell only part of the transit story. If researchers wanted to know what Oakland is like, I would tell them, "Come ride the bus with me."

Chapter 6–Transit Signage in Tokyo

This chapter turns to Japan, a country with a culture and language quite different from those of the United States. For many years I worked in Japan and studied the language. Riding public transit daily, I became familiar with the space and the signage and noticed differences from the transit I experienced in Oakland. It became clear to me that public transit offered a window onto a community, its language, and culture.

The chapter presents a semiotic analysis of a piece of public transit signage that was installed on a wall of a subway station in Tokyo. This analysis looks at the relationship between culture and design, and how designers use modes such as language, color, layout and image to draw on the intended viewer’s cultural background. The text is examined through the lens of multimodal MDA to reveal metafunctions such as the interpersonal and interactional functions of transit signage in Japan. The second part of the chapter addresses pedagogical implications of linguistic landscapes. It closes with concluding thoughts and possibilities for future research.

Multimodal Analysis of a Poster in a Tokyo Subway

The poster (Figure 6-1) exemplifies Japanese use of multimodality. It illustrates modal affordance and the way that modes are foregrounded and backgrounded for effecting metafunctions. It shows the use of language and image for achieving social goals in a Japanese context. Its layout follows non-Western conventions. The poster is indicative of transit signage’s potential to inform LCLE (literacy, culture, and language education) theory and practice. The poster and a set of English translation are in Figure 6-1 and Table 6-1, respectively.



Figure 6-1. Poster in a Tokyo Subway

English translation	Original Japanese
Your voice can be a piece of support for someone else.	<p><i>Anata no hitokoe ga, dareka wo sasaeru piisu ni narimasu.</i></p> <p>あなたのひと声が、誰かを支えるピースになります。</p>
Look out! There is a column.	<p><i>Abunai! Hashira ga arimasu yo.</i></p> <p>危ない! 柱がありますよ。</p>
Are you having trouble with anything?	<p><i>Nanika okomari desu ka?</i></p> <p>何かお困りですか。</p>
The seat over here is free.	<p><i>Douzo, kochira no seki ga aite imasu yo.</i></p> <p>どうぞ、こちらの席が空いていますよ。</p>
Please get on the elevator first.	<p><i>Erebe-ta-, o saki ni douzo.</i></p> <p>エレベーター、お先にどうぞ。</p>
Would you like some help?	<p><i>Otetsudai shimasho ka?</i></p> <p>お手伝いしましょうか。</p>

Table 6-1. Japanese language and English equivalents

Analysis of the Text

The poster is a drawing depicting passengers encountering potentially challenging situations within transit space. An expectant mother searches for a seat. Someone in a wheelchair waits for an elevator, while another person walks with a guide dog. Throughout the text, interlocking puzzle pieces form structures that impose barriers: a set of stairs hinders a woman pushing a stroller; a column blocks the way of someone with a visual impairment. Directed toward the human figures are five speech bubbles with offers of assistance. In the center of the poster prominently sits the declaration, “Your voice can be a piece that helps someone.”

The text portrays transit space as a puzzle for some passengers, to whom the viewer can contribute a solution, a metaphorical puzzle piece. The verbal content is linked to the visual by way of the puzzle piece, a semiotic element that acts as a building block for both spatial and social realities. The *ideational concurrence* (Unsworth, 2006) of the word “piece” and the puzzle piece icons brings the visual and verbal components of the metaphor into alignment. Mutual indexing across modes reinforces the metaphor. The puzzle motif links the disparate passengers to each other visually and to the viewer figuratively, who serves as the “piece” mentioned in the center prose.

Designer intention is evident from the included, excluded, and prominent elements (Fairclough, 2003). The included human elements are the iconic figures in need of assistance. Adjacent to them are speech bubbles emanating from unseen speakers implicitly positioned just past the margin of the text. The excluded element is the human sources of the speech bubbles directed toward the iconic figures, while the prominent elements are the verbal ones. Because of their arrangement, the three categories of elements seem unrelated. In fact, the layout is deliberate. The designer leaves it to the viewer to find narrative closure among the elements: that

is, to infer the relationship between included and excluded participants (the seen and unseen interlocutors) by recognizing the prominent elements (the prose) as the link between them. To perform this task, the viewer needs to be familiar with the appropriate culture and literacy.

When crafting a message, a designer envisions a typical viewer: in this case, a Japanese-speaking adult conversant in Japanese customs. In its petition to the viewer to offer assistance to passengers in need, the text models the desired behavior and language, much like a how-to guide. However, Japanese speakers would already know the proper phrasing found in the speech bubbles. Anticipating that viewers might hesitate to engage a stranger on cultural grounds, the designer establishes an interaction order (i.e., a way for the viewer to connect with the space) that departs from the standard interaction in Japan. In effect, the text grants the viewer permission to set aside normal etiquette within the transit space.

Analysis of Ideational and Interpersonal Metafunctions

The ideational metafunction represents reality as people experience it, while the interpersonal metafunction shows the relationship between viewer, producer and that which is represented. The text uses different modes to accomplish the metafunctions. The iconic puzzle pieces portray the physical situation, thereby performing the ideational metafunction through the visual mode. The word *piece* (ピース) in the center statement associates the viewer with the participants surrounded by puzzle pieces, thus carrying out the interpersonal metafunction via the verbal mode. The interpersonal metafunction is similarly evident in the modeling of relationships between interlocutors, seen and unseen, the latter serving as a proxy for the viewer.

Indexing

Semiotic elements integrate the viewer into the metaphorical puzzle via direct and indirect indexing. The sentence in the center uses language (i.e., *your voice*) to directly index the viewer. Through shared font color, the same element creates a link among the various speech bubbles. Because they emanate from unseen speakers beyond the frame, the speech bubbles index the space adjacent to the text. By making reference to the text-adjacent space, the speech bubbles index inhabitants of the space, which includes the viewer. The circuit of indexes establishes an interaction order that makes the viewer part of that which is viewed. This is an example of the geosemiotic functions in action. Emplacement in the transit station effects place semiotics, visual semiotics, and interaction order. The signage gains its deictic potential to index a space, a culture, and a member of a culture.

Participants

Elements in texts are called *participants* (Kress & van Leeuwen, 2006). Visual and linguistic representation of participants in a text is their ideational meaning (Caple, 2013, p. 12). Human participants are especially effective at attracting attention and intensifying the message. In the present text, they embody passengers that others might tend to overlook. Two-dimensional and motionless, they resemble computer desktop icons or hieroglyphics, almost melding with the environs. They seem more of the space than within it. As if to reinforce their state of neglect, the human participants are portrayed as ciphers, lacking facial features and wearing nondescript clothing. Their similarity of appearance invites the viewer to classify the human participants together. They are *conceptual participants*, not related by action but by generalized characteristics (Scollon & Scollon, 2003, p. 86). Stripped of detail, they become the “ideal

subject,” a role fillable by a range of people (Fairclough, 2001, p. 30). Their malleable identity (McCloud, 1994) complements the index to a generic identity stemming from the word somebody (Japanese: *dareka*) in the center prose.

Designers often favor interactive participants, whose direct gaze attracts the viewer (Scollon & Scollon, 2003). Notably, the present text eschews gaze. With eyeless heads in profile, participants cannot make eye contact, thus distancing them socially from the viewer (Caple, 2013). They are what Kress and van Leeuwen (1996) call *offers*, presented “to the viewer as items of information, objects of contemplation, impersonally, as though they were specimens in a display case” (p. 124). The disjuncture from the viewer runs contrary to the text’s apparent purpose of encouraging social connection. In fact, social disengagement obviates the need for the viewer to react to the participants, thereby licensing closer scrutiny of them (Scollon & Scollon, 2003). Because they make an offer instead of a demand, their gaze can serve as a vector indexing other elements. The human figures serve as *focalizers* (Rose, 2001, p. 45), guiding viewer gaze along the vector from each participant’s face toward the speech bubbles. The effect is bolstered by modal density (White, 2010): Modes converge where language meets image, that is, where the speech bubbles adjoin the participants. The arrangement foregrounds the interaction between human participants and the disembodied speakers outside the frame.

Actor and Goal

Interaction order is a geosemiotic function that structures how people relate to a space (Scollon & Scollon, 2003). In this text, Actor and Goal create an interaction order that speaks to culture. The Actor is the “active participant in an action process [and] the participant from which the vector emanates,” while the Goal is the “passive participant in an action process [and] the participant at which the vector is directed” (Kress & van Leeuwen, 2006, p. 74). When both

Actor and Goal are depicted within the frame, the text is *endocentrically* balanced (Caple, 2013). By contrast, a text is *exocentrically* balanced when only the Actor is visible, with the implicit Goal outside of the frame (Caple, 2013). The designer provides indexes that allow the viewer to complete the image and thus balance the text. For example, vectors radiating from the Actor guide viewer inference regarding the Goal left invisible outside the frame. A participant's gaze prompts the viewer to envision the hypothetical object under scrutiny.

This text does not feature the typical exocentric balance in which the Actor is visible but the Goal absent. The human participants, the usual candidates for Actors, appear passive, almost static. Though visible, they are not active, so they do not serve well as Actors. In contrast, the adjacent speech bubbles, resonating with energy, imply action: Speech, a transactional process, must have a goal. The speech bubbles are vectors emanating from implied Actors: speakers positioned beyond the edge of the text. The human figures are in fact the Goal, "the participant *to whom* or which the action is done, or *at whom* or which the action is aimed" (Kress & van Leeuwen, 2006, p. 64, emphasis original). The arrangement produces an inverse form of exocentric balance: The Goal is visible, but the Actor is not.

The concealment of the speakers acts as a fillip for the interpersonal metafunction. Viewers seek logical organization in texts (Dondis, 1973) and will presume a coherent configuration must exist (Stroebel, Todd, & Zakia, 1980). When a quote is juxtaposed, it is "very strongly assumed to be attributed to this represented participant" (Unsworth, 2006, p. 64). However, utterances in this case have no visible source. Projection from hidden speakers prompts the viewer to resolve the discrepancy (Kress & van Leeuwen, 2006). To form a rational gestalt, the viewer must posit a source outside the frame. The viewer can reconcile the absence of Actor by assuming the role of Actor, that is, by projecting themselves into the open role. The

lack of speakers makes the role available for the viewer to fill. Concealing the speakers allows for a direct interaction order with the viewer. Were the speakers visible, interaction would be in the third person, with the viewer relegated strictly to observer status. The text is just as balanced as if the speakers were visible but is more compelling because it requires imaginative effort by the viewer, who must assume an agentic role to complete the narrative.

The Modes of Layout and Composition

Modal composition is the “hierarchical structure” of modes that guides viewers toward significant information (White, 2010, p. 371). In this text, color scheme expresses the modal hierarchy: language supersedes image. Words in bold hues leap from the textual plane, while drab figures recede into it. Voice is vibrant whereas space is somber. Speech is prominent for didactic purposes: It models the desired behavior of the viewer. It is easier for viewers to project themselves into the role of the non-depicted but active speakers uttering vivid words than into the role of the monotonous participants.

Partitioned into three tiers, the poster has a precise linear feel characteristic of Western design. Geometry notwithstanding, the composition is in fact non-linear, with no preset viewing sequence (Kress, 2003). Modal use by the designer supports this interpretation. The signage appears in a Japanese context, thus inviting a non-Western reading of the text in which the center is the logical starting point (Kress, 2003). The central prose in vivid blue font against a complementary yellow background vies for attention first, followed by the radiating pairs of participants and speech bubbles. Each pair of elements is distinct but related. The viewer can inspect them in any order and still grasp their meaning.

Position within layout imparts a semiotic element with certain qualities. In Western texts, the top and bottom present the Ideal and Real, respectively, while the left provides the Given and

the right represents the New (Kress & van Leeuwen, 2006). In non-Western texts, a different taxonomy can apply: The center features the salient, while the periphery holds less important elements (Kress & van Leeuwen, 2006). An element in the center is “presented as the nucleus of the information to which all the other elements are in some sense subservient” (p. 196). Elements near the margin are often “identical or at least very similar to each other, so that there is no sense of a division between Given and New and/or Ideal or Real elements among them” (p. 196).

To reinforce Ideal/Real and Given/New dichotomies, the text employs a passive/active contrast akin to the concepts of yin and yang. Human participants are rendered in mundane, static colors anchoring them to the page. Portrayed as monotonous, they stand for the Real and the Given. In contrast, the speech bubbles glide in from the edges and burst with color that lifts them from the background. Each one radiates an explosive cluster of three strokes like the tops of exclamation points. The speech bubbles represent the Ideal and the New.

Through a sequence of indexes, the viewer is connected to the Ideal and the New. First, the prose in the center establishes contact with the viewer. The central prose connects to the speech bubbles by way of matching font, a modal link from the salient message to the Ideal and the New. The speech bubbles index unseen speakers beyond the frame in space shared by the viewer. The intersection affiliates the viewer with the unseen speakers, the source of the Ideal and the New. The indexical circuit runs from the viewer to the center prose; then to the content of the speech bubbles; to the unseen speakers and finally back to the viewer.

Modality

Modality refers to the truthfulness, credibility, and realness of an image (Kress & van Leeuwen, 2006). A color photograph exemplifies high modality, “a reflection of the fidelity of the representation with the natural world” (Unsworth, 2006, p. 67). Low modality, despite its lack of

detail, does not imply inaccuracy or deception. For example, diagrams and schematics are stripped of extraneous information for greater intelligibility. Designers tailor modality to the purpose of a text.

The transit signage here epitomizes low modality, particularly in its use of color (Kress & van Leeuwen, 2006). *Color modulation* is minimal, with only one shade of each color. Elements are flat and lack detail. *Color differentiation* is narrow, comprising only five colors: human participants in black and white; prose and background in blue and yellow; and puzzle pieces in gray. The text has no depth of field, no obvious sources of illumination, no variation in brightness, and no concomitant shadows.

Modality usually performs the interpersonal metafunction, which portrays social reality (Kress & van Leeuwen, 2006). Here, designers use modality to institute social categorization. Low level of detail and low color modulation de-emphasize human participants collectively. The figures form an unobtrusive, anonymous group distinct from the viewer. The dissociation makes it easier for the viewer to align with the unseen speakers outside of the frame. By opting for subdued imagery, designers afford greater prominence to other modes. In contrast to the images, the language has high modality (Kress & van Leeuwen, 2006). The word *you*, usually implied in Japanese, augments the modality of the sentence by referring to the viewer, who is real and concrete. By making the prose more impactful, modality enhances its interpersonal metafunction.

Language

The most salient element of a text offers the logical starting point to the reading path (Kress, 2003), while guiding the viewer's interpretation of the text (Cartwright & Sturken, 2001). Here, it is the center sentence: *Your voice is a piece that can assist someone*. The prose calls on the individual (*you*; Japanese: *anata*) to assume a responsibility atypical in Japanese culture:

attending to the needs of an anonymous other (*someone*; Japanese: *dareka*). The word you (*anata*) performs the ideational metafunction by linking the viewer to the concept of puzzle piece. It concurrently performs the interpersonal metafunction by forging a relationship between human participant and viewer, who as a puzzle piece can solve the former's predicament.

The text uses polite language, but the tone of the central prose contrasts with that of the speech bubbles. The speech bubbles include no personal pronouns, a structure not unusual in Japanese: Personal pronouns are unwarranted even in direct address, as they are understood from context. In contrast, the center sentence contains the word *you* (Japanese: *anata*), common in English, but typically extraneous and avoided in Japanese conversation (Iino, 1996). Its position at the head of sentence augments its salience whereas its rarity in Japanese makes its presence all the more compelling.

The word *you* (*anata*) emphatically involves the viewer but implies that the viewer is an outsider (Goekler, 2010). It serves a social rather than grammatical purpose and illustrates the Hallidayan concept of language as a tool for social goals. Its location in the sentence relates to the textual metafunction: *your voice* (Japanese: *anata no koe*, literally *the voice of you*) is “the point of departure for the interaction” or the Given (Unsworth, 2006, p. 58). The rest of the sentence, the New (Halliday, 1994), describes what the viewer can accomplish. Through its direct appeal, the pronoun *you* carries out the interpersonal metafunction by establishing a *through* relationship (Caple, 2013) between the viewer and text producer (i.e., the transit authority).

Next in importance are the speech bubbles, an instance of *projection*, the “reporting of words or thoughts” (Unsworth, 2006, p. 63). The sources of the speech bubbles remain unseen, presumably just outside the frame. The arrangement is deliberate: Projection produces an

intersection of textual and transit spaces, and the viewer ends up sharing space with the source of the projection. The text encourages the viewer to identify with the anonymous speakers and to assume their role. Intermodal redundancy reinforces the tie between the unseen speakers and the viewer: Duplication of font color in the center prose and that of the speech bubbles creates conceptual overlap between the words directed at the viewer and the words of the incorporeal speakers. As a result, the viewer becomes a *narrative participant* (Scollon & Scollon, 2003), interacting with visible participants by way of disembodied speech instead of gaze, the more typical mode.

Of special interest is the word *piece* (*piisu* ピース). It is written in katakana, the syllabary that denotes words of foreign origin transliterated into Japanese. Being the sole katakana word sets it off from the rest of the sentence, while its central position in the layout amplifies its salience. Its foreign patina heightens its distinctiveness while indexing a different culture.

The word *piisu* (ピース) in fact has two senses in Japanese: *piece* and *peace*. A katakana word with twofold meanings invites closer consideration by the reader. The first meaning, a puzzle component, is specifically identified by the explanation in the poster's right-hand side of the bottom tier: (ピース・piece). However, the same block of prose uses the (non-katakana) word *anshin* (安心), meaning *peace of mind*. The word *piisu* (ピース) creates an index conjoining two homonyms and their related concepts: the viewer can be a puzzle *piece* that promotes *peace* of mind in society.

In contrast to the multilingual signage on the bus in Oakland, the Tokyo metro poster is monolingual. Public transit in Tokyo caters to passengers with a range of backgrounds, so it might be expected that a poster would have more than one language. English is absent from this

piece of signage for several reasons. First, there is no need to translate for foreigners because the signage addresses a concern relevant to members of Japanese culture. The transit authority does not seek to change the behavior of foreigners within the transit space. Second, incorporating English into the signage would index a foreign culture, thus tinting the message with a foreign look (Backhaus, 2007).

The designers are Japanese, addressing a Japanese audience. This message for cultural insiders should appear to come from inside the culture. A “foreign” look to the message would undermine its authority and air of cultural legitimacy. The signage is not a foreign voice requesting a behavioral change, but Japanese appealing to other Japanese to do so. Japanese viewers will know this is the case because the message is clearly from a source unadulterated by foreign culture. Japanese viewers can adjust their behavior within the transit space and still be within the parameters of accepted behavior. In short, English, though eye-catching, would undermine the validity of the message and the authority of the source. English influence is evident in the katakana, the syllabary for importing foreign words. Because katakana is the native means for incorporating foreign concepts into Japanese, the designers can inject foreignness without compromising their cultural authenticity. The designers could have used the English word *piece*, but the Roman alphabet would preclude a dual interpretation (i.e., *piece* and *peace*).

Culture

Advertisements often use problem-solution patterns to convince consumers that a product fixes their problem (Fairclough, 2003). In contrast, this text is typical of public service announcements (Ma, 2005): It petitions viewers to attend to another’s problem despite no expectation of

compensation. Benefits accrue directly to passengers in need and indirectly to the transit authority.

In Japan, etiquette-oriented signage has been called a “technology of customer service” (p. 933) “primarily driven by concerns for customer sensibilities” (Schimkowsky, 2022a, p. 934). In this regard, this poster, by exhorting Japanese passengers to involve themselves in the affairs of strangers, promotes behavior that deviates from their cultural norms. The Japanese societal dichotomy of *uchi* (inside) and *soto* (outside) explain why this is so (Bachnik, 1994, 1998; Goekler, 2010). Japanese society operates on a group basis. An individual’s identity and social status derive from group membership, which is often determined by factors such as one’s employer or school. Those with group membership are considered *uchi* (inside), while those outside the group are considered *soto*. To be inside (*uchi*) bestows the group’s clout upon an individual with the expectation that they prioritize group needs and make personal sacrifices toward maintaining the group strength and integrity. In failing to do so, the individual risks ostracism from the group, which is their source of identity, social status and perhaps even their livelihood. As a result, Japanese stay highly attuned to their group’s needs. Conversely, the absence of social connection with group outsiders (*soto*) means there is no obligation to help them and no reason for them to expect help.

In a Japanese transit context, passengers are outsiders (*soto*) to each other by default. Because they are strangers, they have no meaningful social connection. The assumption behind this manner poster is evident in its participants (i.e., the people depicted therein): They will not ask other passengers for assistance, for to do so would be an imposition on group outsiders (*soto*). The manner poster attempts to convince viewers to take the initiative and offer assistance

to those in need. That is, the poster effaces an implicit cultural boundary, the *uchi-soto* distinction, within the transit space.

The attempt to adjust relationships within transit is an enactment of interaction order, an aspect of geosemiotics (Scollon & Scollon, 2003). The text reveals how authority is expressed in a culturally sanctioned form on Japanese transit. To be persuasive, texts can invoke sources of authority such as culture or the law (Rose, 2001). The text in fact does the opposite, exhorting passengers to set aside the *uchi-soto* dichotomy and help outsiders since insiders are unavailable and transit personnel are not always around. Through its authority over the space, the transit agency aims at inducing a culture shift within transit space by declaring an exception to cultural convention for the sake of passenger well-being.

This is not a hypothetical concern. On a Japanese commuter train, I once witnessed a man in his 60's collapse unconscious onto another passenger, who glared but did nothing. Others appeared indifferent to the man's plight, so I called out to another passenger to press the emergency button to alert the conductor. No other passengers intervened. To Westerners, such treatment can seem callous, but it is normal for Japanese to avoid involvement with strangers, even in emergencies. As Cohen (1997, p. 32) observed, "[I]t is hard for members of a collectivistic culture to deal with a stranger from outside their circle. ... an outsider owes you nothing."

This signage is an example of a text informed by Japanese culture (Schimkowsky, 2021). The poster employs a direct appeal, encouraging viewers to "engage in, or refrain from, specific behaviors" (Schimkowsky, 2021, p. 144). Adhering to expectations of a Japanese viewer, the text solicits passenger assistance rather than demanding it. The text specifies an interaction order with the space while preserving the customer-company relationship. From a US perspective, the

poster almost seems an implicit appeal because it frames the issue indirectly. Signage in the US would likely outline the interaction order more directly: for example, by exhorting passengers to comply with laws and rules. The more peremptory tone in the US would be culturally appropriate since the transit company has authority over the transit space. The difference in interaction order of US and Japanese passengers is a reflection of culture-bound geosemiotics within signage.

Literacy

The poster speaks to the nature of transit literacy. The designers drew on a situated literacy shared by passengers cognizant of Japanese culture and language. This is evident in the text's assumptions about how Japanese viewers behave in transit space. The text calls on passengers, usually loath to get involved, to lend a hand to strangers. The transit company is using literacy informed by a high-context culture to foster a change in behavior within the transit space.

Key Takeaways—Looking Across, Looking Ahead

Transit signage, an artifact of culture and literacy, has untapped research and educational potential. It offers a novel approach to understanding situated literacies and the way that multimodal signage informs language and culture. In this section, I weigh the possibilities of using transit signage for literacy acquisition and language instruction.

Pedagogy stems from conceptualization of literacy. That is, how educators treat literacy determines their teaching approach. Educational institutions have typically embraced the traditional view of literacy: “an autonomous neutral set of skills or competencies that people acquire through schooling and can deploy universally” (Jewitt, 2008, p. 244). The ostensive

curricular goal has been to prepare students for communication centered on one mode: language. Accordingly, schools have emphasized print-based media and language and sought to inculcate “sets of established practices, conventions, and rules” (Jewitt, 2008, p. 253).

The monolingual, monomodal treatment of literacy has been obsolete for decades but still does disservice to students and teachers alike. In contrast to language-centric curricula (Gee, 2004), the world has not restricted itself modally (Lankshear & Knobel, 2006), yet the classroom has not kept pace. There have been calls for change: For instance, in 1996, the New London Group proposed a new vision of literacy, arguing that “the multiplicity of communications channels and increasing cultural and linguistic diversity in the world today call for a much broader view of literacy than portrayed by traditional language-based approaches” (p. 60).

Multimodality and multiliteracies should be central to curricula for many reasons. To participate in society requires an understanding of evolving literacies. Evolution of multimodal representation in contemporary society has diminished the relevance of traditional language-focused literacy (Jewitt, 2008). In particular, a shift from print to screen has taken place (Kress, 2003), as image in electronic media complements and increasingly supplants the written word. As Cartwright and Sturken (2001) explain, it is a “paradox of the twentieth century that while visual images have increasingly come to dominate our culture, our colleges and universities traditionally have devoted relatively little attention to visual media” (p. 4). The fact that readers encounter a widening variety of texts with diverse modal use means that literacy pedagogy must change (New London Group, 1996). As the primary site for literacy acquisition, school should assume responsibility for equipping students with multiliteracy pedagogy to prepare them for the multimodal world they inhabit (Unsworth, 2001). The first step is for educators to rethink literacy and pedagogy (Kress & van Leeuwen, 2006). Education needs to shift perspective from

literacy as monomodal (Jewitt, 2008). Literacy and literacy pedagogy should not be constrained to language alone, though language will continue to play a role therein (Unsworth, 2001, 2006). As communication evolves, so must literacy and its role in education.

Multiliteracy education creates novel learning opportunities. For example, experience with the multimodal world can be brought to the classroom for the purposes of literacy education (Jewitt, 2008). One pedagogical vista comes from the idea of linguistic landscapes (Backhaus, 2007; Cenoz & Gorter, 2008). Outside of school, students encounter linguistic landscapes, which contain multimodal texts in which they do not currently get explicit literacy instruction (Carrington, 2005; Lankshear & Knobel, 2003; Unsworth, 2001). Students and teachers can use their experience with linguistic landscapes to understand multimodality and literacy (Burwell & Lenters, 2015; Cenoz & Gorter, 2008; Rowland, 2012). Toward this end, the transit space, as a linguistic landscape, can provide pedagogical material. For example, the Japan Metro text offers language learning opportunities. Language is used in an atypical way to address viewers and appeal to their social conscience. From this usage, language students can learn sociolinguistic aspects of Japanese.

Literacy acquisition will never be a one-time process. The dialectic among modes and advances in technology will produce modes that complement and displace current ones. New modes will be governed by different logic and different affordances and will alter the relationship among extant modes (Jewitt, 2008). Students need to be prepared to learn the logic and affordances of new modes and the concomitant new literacies. For this reason, teachers should equip students to acquire more than just literacies of the present. They need to instill a meta-literacy awareness in students and can do so through “explicit teaching of how modes construct meaning in specific genres” (Jewitt, 2008, p. 262).

To prepare students to consume and produce new forms of information, teachers themselves need to stay abreast of changes in literacy. Though they often resist new literacies and concomitant technology (Dalton & Proctor, 2008), teachers need training that equips them with a broader understanding of literacy and the ability to instill multimodal thinking in students. Teachers unable to decode multimodal texts cannot instruct students how to do so.

Transit Literacies for Pedagogy

As one of its pedagogical goals, multiliteracies aim at “creating access to the evolving language of work, power, and community” (New London Group, 1996, p. 60). Transit signage fits within the scope of this goal because it can inform teaching of culture and literacy. It offers the advantage of being an emplaced literacy and a real-world exemplar of signs and modes in a linguistic landscape. Transit signage instantiates communication in the way that social semiotics conceptualizes communication: as a means for achieving social purposes. It is not language and semiotics for the sake of curriculum but what students encounter in their daily lives. As a real-world phenomenon, transit signage provide students a meaningful personal connection to curriculum. By studying its different forms, students can come to appreciate multimodal literacy (Rowland, 2013). Students can apply multimodal comprehension strategies to transit signage as a springboard to producing their own multimodal texts (Rowland, 2013). Teachers can use transit signage from other communities to illustrate the connection among semiotics and culture. In short, transit signage provides a resource for understanding multimodality and multiculturalism.

Concluding Thoughts

This research study has examined transit signage as a window on and mirror of culture and literacy. Through the lens of multimodal mediated discourse analysis (MMDA), the study

examined transit signage in three venues: a BART station in Oakland, CA; AC Transit buses in Oakland; and a Tokyo Metro station between 2017 and 2019. MMDA of the trio of posters in the BART station detailed the use of semiotics to mediate a message with the viewer in a US transit space. Designers attended to surface-level diversity in their choice of celebrity participants but ignored deep-level diversity such as language by using only English.

Analysis of the linguistic landscape on the AC Transit buses exposed a language hierarchy at work. English dominated, with Spanish and Chinese occupying a lesser tier. Absence of other community languages meant that the linguistic landscape did not portray a complete profile of community's languages, just the intentions, obligations and limitations of the signage designers. The transcript of observations on the bus profiled passenger behavior while underscoring the importance of attending to non-visual modes, which LL researchers have tended to overlook. Passenger indifference to signage highlighted the limitations of MMDA for uncovering culture within transit space.

MMDA of the Japanese poster identified the impact of culture on semiotic usage in a transit setting. An example of "manner posters," the signage framed a request within the bounds of propriety for the company-customer relationship. The oblique tone of the text contrasted with the direct tone of signage in Western contexts. The geosemiotics of the Japanese transit space reflected culture.

Future research

Linguistic landscapes, perhaps better labeled *semiotic landscapes*, merit more nuanced investigation that goes beyond the signage. Transit spaces are a good site for such research: They provide a place where it is feasible for researchers to gauge human interaction with the space.

The findings provide evidence of a transit literacy, that is, communication conventions shared by signage designers and viewers. Transit literacy is a situated literacy that subsumes comprehension of visual semiotics, place semiotics, and interaction order. That is, transit literacy entails space as well. In this regard, it is distinct from other literacies, which tend to focus on two-dimensional texts. Transit literacy is a form of literacy pertaining to semiotic landscapes and could be researched within that context.

Another line of future research is to compare and contrast different transit spaces on a geosemiotic basis to understand the effects of culture and literacy. The US and Japan transit spaces in this study displayed different geosemiotics, an indication of disparate cultures and literacies at work. Analogous research on transit systems in other countries could provide additional insights.

Moving Forward with Transit Literacies

I planned my research with an eye toward formulating transit literacy. At the outset, I treated transit signage as the locus of culture and literacy. Reflecting on the three studies, I recognize that my conceptualization of transit literacy has evolved. Transit signage told only part of the story of transit space. While recording firsthand observations of the transit space, I came across multimodal phenomena just as noteworthy as the content of the signage. These findings make sense because transit space is geosemiotic, involving not only visual semiotics but also place semiotics and interaction order. Since transit space is geosemiotic, transit literacy should be so as well.

The foundations of social semiotics provide support for the idea of transit literacy as geosemiotic. Systemic functional linguistics (SFL), the basis of social semiotics, views language as a resource employed for social goals (Halliday & Matthiessen, 2014). From this perspective,

literacy means to understand and be proficient in language as part of social processes.

Geosemiotics treats space as semiotic. Since geosemiotics builds on social semiotics, space can be considered analogous to language as conceived under social semiotics: namely, a set of resources used for social functions and goals. Space is meaning-making; meaning-making is social (Mills, 2016). In the spirit of Fairclough's (2001) sentiment on language, we can say that space does not just reflect or express social processes, it is constituent of social processes.

Accordingly, transit literacy describes an understanding of transit space and of how interaction with and within transit space make meaning.

Future research on transit literacy needs to attend to all aspects of transit space. Though it exhibited cross-cultural differences, transit signage in my research reflected only designer perception of transit space, not passenger behavior therein. Signage is the depicted aspect of transit literacy, whereas passenger behavior is the performed aspect. To fully characterize transit literacy, researchers need to observe how evanescent, emergent aspects such as human behavior and non-visual modes communicate about transit space. This is a gap filled only partially by my research.

Literacies evolve, and transit literacy will do so as well. The semiotic landscape of transit space will change as communities integrate emerging forms of culture into transit space and designers seek to new ways to communicate with passengers. New semiotic modes will enter transit space as a result of modal evolution outside it. For instance, static printed signage is already being supplanted by video monitors that present timely, detailed information.

Augmented reality is another possibility for providing more nuanced indexes within the space.

Passengers might not consult the space itself to make sense of it and instead use portable technology such as smart phones to index transit space. To capture its manifold, dynamic nature,

researchers should construct definitions of transit literacy from the bottom up (i.e., empirically) rather than from the top down (i.e., conceptually). The descriptive (versus prescriptive) approach to literacy dovetails with the progressive notion of multiliteracies as conceived by the New London Group (1996).

I wish that I could say that it was my intention all along to propose a new form of literacy. In fact, I happened upon transit literacies serendipitously during my cross-cultural investigation of transit spaces. From my experience, I expect there are many situated literacies out there waiting to be discovered. To find them, I recommend researchers do what I did: make the strange familiar and make the familiar strange.

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Appendix A - Literature Search

The table below contains a list of search terms entered into Google Scholar. The search engine reported the approximate number of sources for the search terms. The quotation marks around terms indicate that the words must occur sequentially in order to be returned in the search results.

Search terms	Reported results (approximate)
train linguistic landscape public places	378,000
transit signage	71,000
public transit signage	55,000
“linguistic landscape”	28,600
“public transit” signage	27,500
transit semiotics	24,900
transit sign landscape geography signage public places	24,100
japan “linguistic landscape”	7,750
“public sign”	4,980
“semiotic landscape”	3,740
“public signage”	3,440
transit semiotics multimodality	3,210
multimodal “semiotic landscape”	1,800
“public transit” semiotics	1,570
“public signage” semiotics	1,200
“linguistic landscape” “transit”	1,050
japan “linguistic landscape” “transit”	433
“public signage” “social semiotics”	249

“semiotic landscape” “public transport”	144
“transit signage”	109
“public transport” “multimodal literacy”	78
“linguistic landscape” “public transit”	77
japan “linguistic landscape” “public transit”	46
“transit signage” “multimodal”	20
“public transit” “multimodal literacy”	19
“public transit” “multimodal discourse analysis”	12
“public signage” “multimodal semiotics”	9
“transit literacy”	9
“public transit” geosemiotics	9
“semiotic landscape” “public transit”	9
“public transit signage”	7
“spatialized literacy” “public space”	4
“transit semiotics”	2
“linguistic landscape” “transit signage”	2
“public transit semiotics”	1
“public transit space” geosemiotics	1
“public transport signage” “multimodal literacy”	0
“transit signage” “multimodal discourse analysis”	0
“transport signage” “multimodal discourse analysis”	0
“public transit signage” geosemiotics	0
“linguistic landscape” “public transit signage”	0
japan “linguistic landscape” “public transit signage”	0

Appendix B - Glossary

Term	Definition
AC Transit	Alameda-Contra Costa Transit District; a public bus system
<i>anata</i> あなた	Japanese for “you”
<i>anshin</i> 安心	Japanese for “piece of mind”
BART	Bay Area Rapid Transit; an intercity rail system in the San Francisco Bay Area
<i>dareka</i> 誰か	Japanese for “someone”
geosemiotics	“the study of the social meaning of the material placement of signs and discourses and of our actions in the material world” (Scollon & Scollon, 2003, p. 2); it examines the meanings of an emplaced text and its interaction with readers.
ideational metafunction	This metafunction creates representations and naturalizes reality (Jewitt & Oyama, 2001; Unsworth, 2006); it represents reality as people experience it.
interaction order	A geosemiotic system that structures how people relate to a space (Scollon & Scollon, 2003); it describes the expected behavior and arrangements of social actors (Zhao, 2021).
interpersonal metafunction	This metafunction enacts social interactions as social relations (Cape, 2013; Unsworth, 2006); it shows the relationship between viewer, producer and that which is represented
katakana	A Japanese syllabary typically used for importing foreign words
linguistic Landscape	Any physical space with visible semiotic elements left by human beings for communication purposes (Pütz & Mundt, 2019).
MMDA	Multimodal mediated discourse analysis
mode	Something that mediates communication (Norris, 2013); examples include “image, gesture, gaze, body posture, sound, writing, music, [and] speech” (Jewitt, 2008, p. 247).

multimodality	“interplay of multiple semiotic modes to transmit meaning” (Norris & Maier, 2014, p. 392).
pangolin	An endangered animal prized as a delicacy and as an ingredient in traditional medicine (What is a pangolin, n.d.).
participant	Human figures depicted in a text
<i>piisu</i> ピース	A Japanese katakana word meaning either <i>piece</i> or <i>peace</i> .
place semiotics	A geosemiotic system that deals with how emplacement and spatial organization generate meaning (Zhao, 2021).
semiotics	The study of signs
sign	“any material object that indicates or refers to something other than itself” (Scollon & Scollon, 2003, p. 3); the basic element of analysis in semiotics (Chandler, 2017; Sebeok, 2001).
signage	A physical, usually two-dimensional piece of communication on public transit
social semiotics	An extension of semiotics (Sebeok, 2001); treats language as a resource for performing social functions; operates on the assumption that “meanings derive from social action and interaction using semiotic resources as tools” (Jewitt et al., 2016, p. 58).
<i>soto</i>	Japanese word meaning <i>outside</i>
textual metafunction	This metafunction organizes text, conveying “the relative emphasis and information value of aspects of what is being communicated” (Unsworth, 2001, p. 10).
<i>uchi</i>	Japanese word meaning <i>inside</i>
visual semiotics	A geosemiotic system that deals with the visual nature of texts (Zhao, 2021)

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