Feeling Double: The Psychophysical Activation of Personality in Bilingual Performance

Melanie Drever-Lude

"You never really understand a person until you consider things from his point of view, until you climb into his skin and walk around in it."

-Harper Lee, To Kill a Mockingbird

In September 2007, in Pittsburgh, Pennsylvania, and Stuttgart, Germany, I mounted my first bilingual theatre production, *Outside Inn.*¹ Intended as a bicultural exploration of stereotypes, our team brought together a cast of bilingual actors to perform a commissioned play in both German and English. We hoped to advance cultural understanding in the two target countries (Germany and the United States), and to use the rehearsal and performance process as a laboratory for discovery. Our plan was to unearth myths about each culture, and then share those discoveries with the audience. For this experiment, our partner theatre, Theater Rampe Stuttgart, provided the two bilingual German actors, and I hired two bilingual American actors to comprise the cast of four who performed the roles in the play.

Austrian Andreas Jungwirth wrote our play, Outside Inn, which was then translated into English by Gabriele Schafer. Outside Inn, told in first-person narrative, concerns the adventures of civil engineer Paul Schneider, a simple German gentleman who happens to love American movies. Paul's primary problem is that he hates both his American wife and his German boss and the life they have constructed for him. On a business trip to Philadelphia, Paul's boss, Kalowski, takes him to one of their construction sites to disclose plans for some nefarious business in the Middle East. While standing on the edge of a precipice, Kalowski suddenly slips and falls to his death. Instead of reaching out to save him, Paul grabs hold of and retains the suit jacket Kalowski was holding. Paul tells no one about the accident. Instead, he steals the passport and credit cards he finds in the jacket and heads to Vincetown, Arizona. There, he calls his German mistress and asks her to join him. They have dinner in a restaurant called Outside Inn, where tourists can enjoy a burger and fries while watching the border patrol pick up illegal immigrants. Once these two have negotiated with the American criminal underground and procured new passports, they fake Paul's death and head to South America to begin a new life. The lost man who began our story is now living his fantasy by becoming the hero-outlaw from one of his movies. In this complicated, image-rich story, Jungwirth provided us with his (Austrian) perception of culturally specific ideas: corporate greed, immigration, Hollywood, identity theft, racism, colonialism. It was then our job, over the course of five weeks, to rehearse this challenging play in both English and German. We mounted our production in late August/early September 2007 at the University of Pittsburgh and played for five preview performances (three in English, two German), before taking the play to Stuttgart for a month-long engagement in October.2

Rehearsing and performing in two languages proved challenging and created much anxiety for the four actors in the play. We were so busy mounting our double production that it was not until our post-show discussions that the actors shared something unexpected about their performance



Fig. 1 Stephan Bruckmeier as Paul and Petra Weimer as Marina in *Outside Inn* (Pittsburgh production, 2007). (Photo: Sandra Bertsch.)

experience. Although they were telling the same story each night, whether playing in English or German, the actors felt as though they were performing two different characters onstage. The people they were playing had slightly different relationships to one another and to the circumstances of the play depending on which language they were using in performance. These distinctions were subtle and perhaps not even discernible from the audience's perspective, but they seemed significant from the actors' points of view. This dual personality was an unanticipated byproduct of our cultural experiment. Some multilinguals recognize a sensation of feeling like someone else when speaking for an extended time in a second language; I also experience a sense of Otherness when speaking German. Yet, it never occurred to this multilingual group of artists that a personality shift might transfer to the development of character. Our production provided a unique environment in which the psychophysical effects of speech were evident by direct comparison: the same play, the same characters, the same stage movements. The sounds of the words, the facial expressions required to articulate each line, the gestures that naturally accompany one language or another, and the cultural context from within which each language exists were all having an effective on the cognitive/emotional/identity mechanisms during the acting process. This unexpected discovery seemed to warrant further investigation, so I decided to research the science behind this phenomenon to see if I might better understand the psychophysics of bilingual performance.

When I began the research for this project in 2005, I was unaware of the methodology known as Performance as Research (PaR). Typical of many PaR projects, I developed my initial idea with a question in mind: What will happen if I bring together actors from two cultures and tell a story about stereotypes within a bilingual environment? I worked from what Baz Kershaw and colleagues describe as a creative hunch (if we deliberately investigate stereotypes, we will uncover something important), not from a predetermined scientific hypothesis (language psychophysically activates emotionally driven personality profiles). The unpredictability of the outcome, or the idea that "we do not yet know what we do not yet know," is at the heart of PaR practice (2011, 65). Although my work fits nicely within the PaR paradigm, my research approach is somewhat atypical. Using theatre as my platform, I construct a cultural encounter that is centered loosely around a theme, and then watch to see what knowledge will emerge. The open-ended nature of the initial approach to my projects often yields discoveries that are unexpected and fruitful, and allows me to see elements of cross-cultural behavior that I might miss were I focused too tightly on investigating a single idea. In Outside Inn, it was only by placing our linguistically distinct performances side by side that we were able to detect that language generated a psychophysical response that informed character development. Once useful information emerges from the process, I can take the time to investigate its source. This reverses the traditional PaR paradigm in which the artist determines a question and then constructs the project to find an answer. In my case, I construct projects to generate answers that I later deeply investigate using cross-disciplinary research. Working within a cross-disciplinary context is also an aspect of the PaR paradigm: "performance practice as research more precisely defines itself as method and methodology in search of results across disciplines: a collection of transdisciplinary research 'tools'" (Kershaw 2009, 5; emphasis in original). My research into the origins of the psychophysics of bilingual character development led me to the fields of psychology, linguistics, cultural anthropology, and cognitive science. Here is what I found.

How Does Language Work?

Most humans grow up learning to speak from exposure to the language practice of parents, siblings, and friends. By hearing and imitating phrases used by those around us, we begin at an early age to construct specific neural pathways through the repetition of sound and gesture as an embodiment of expression. The language we incorporate to describe the world around us provides specific psychophysical frameworks that influence the neurological development of our language ability. The grammatical constructions we choose to describe our thoughts, the dialect we employ to shape the sounds of the words, and the facial expressions and gestures that accompany the expression of our ideas arise from the specific cultural context in which we grow and learn. Language helps shape our reality and creates a cognitive boundary that both expresses what we see, hear, and feel, and determines how we see, feel, and hear it through the embodiment of the words we learn to use to express ourselves. According to John Lutterbie, "[l]anguage, therefore, is based on a way of structuring the world that is formulated through experience and cultural frames, but it is circular in that the form and content of words and their arrangement also determines how we construct our reality" (118). A child must start from scratch and begin to build a neural structure that allows her to understand the world around her and to talk back to the world she sees. This language-learning process is not an acquisitive event; that is, cognitively speaking, a child does not merely add new words over time to a collection of words already stored in the brain. Each new linguistic idea is absorbed by an existing neurological structure, which must first experience the new word/idea, adapt to accommodate this new information, and through this adaptation create a new neurological structure. Jerome Feldman describes this dynamic process as "SEA: Structure-Experience-Adaptation": "Learning does not add knowledge to an unchanging system—it changes the system" (72).

Although most healthy, well-developed children learn to speak in roughly the same way and at roughly the same rate, bilingual children provide particular insight into how the brain processes and uses language. Children raised in a bilingual environment not only acquire the linguistic advantage of learning to speak more than one language fluently, but their brains develop differently from monolingual children (Bialystok 127). As bilingual children grow and learn, they must sort and parse a larger amount of data than a child learning only one language, obligating their brain's executivecontrol system to work double time. This extra work at an early age provides a cognitive advantage later in life: bilingual children are better able to handle multitasking situations and to find new ways to solve problems. But what about those of us (like my actors) who acquired a second language later in life and hence do not possess the young bilingual's highly developed executive-control function? Do our brains negotiate this bilinguistic development differently from a child learning to speak two languages from birth? Linguists Patsy Lightbown and Nina Spada argue that the repetition of new words and grammatical structures traditionally used when learning a second language does not adequately explain how someone acquires a new language later in life: "Learners are thought to 'construct' internal representations of the language being learned. One may think of these internal representations as 'mental pictures' of the target language" (26). Cognitively speaking, the process of learning a second language is more complicated than repetition and rote memorization. Lightbown and Spada's research supports Feldman's later articulation of SEA that the process of acquiring new linguistic ability does not just add information to an existing collection of data, but that it changes the way we think: "sometimes things which we know and use automatically may not be explainable in terms of a gradual build-up of automaticity through practice. They seem rather to be based on the interaction of knowledge we already have, or on the acquisition of an existing system and may, in fact, 'restructure' this system' (Lightbown and Spada 25).

Linguist Alison Wray (4) has identified that we store and process language using a variety of strategies that include the chunking of formulaic phrases. Chunking involves grouping words together and filing them as a collection of associations. These associations are cultural, social, psychological, and linguistic, the personal meaning of which transcends a mathematical binary of "this word means that." Those of us who acquire a second language later in life must work around the fact that our neural framework for linguistic processing has already been developed. To do so, we create an imagistic link from one language to another, so that the associations for the formulaic phrase "I love you" become connected to (but do not precisely duplicate) the associations for "Ich liebe dich." We build bridges from what we know (grammatically and culturally) to what we are learning—many of these bridges being of unconscious construction. Feldman supports this bridging metaphor, expanding the idea by articulating that the bridge that links cognitive processing to language ability relies primarily upon three components: neural computation (our ability to process ideas); the embodied nature of thought and language (how a language is realized in the body when we speak it); and the integrated organization of language (how the structure of language informs us psychophysically and culturally) (13–14).

Actors often use associative scaffolding to construct a role and build bridges between themselves and the characters they play. Stanislavski's "as if" is based on this premise. "As ifs" can help make psychological sense of challenging moments in the play by creating a bridge between the intellectual idea in the text and a similar personal experience in the actor's life. Some of what an actor *knows* about a character is consciously constructed using images and associations; some of what an actor *learns* about a character occurs intuitively and psychophysically during the rehearsal process. It appears that in a bilingual environment, the images and associations used for performance may live in two dimensions: first as associations that help the actor identify with the role; and then as a series of cognitive bridges that allow the actor to internally recognize and experience these associations in the second language. They know the formulaic phrases of the character in English differently from those of the character in German. Building these two sets of associations is hard work for the bilingual performer, which helps explain why all of my actors wanted to spend more rehearsal time in their second language, where there were more bridges to build than in their first, where they had many previously constructed associations at their disposal.

Does Language Shape How We Think?

Understanding how we store and process language helped explain one aspect of the bilingual phenomenon, but thus far my understanding of the experience was unidirectional. The actors were using language to construct two sets of images and associations as they built their roles in each language. But were the languages they were speaking also changing them in some way? Here, we need to interrogate the idea of *embodiment*, a term both helpful and deceptive in describing how we

process and experience language. Lutterbie worries that the term implies a disconnect between the body and the mind. He asserts what cognitive science has demonstrated to be true: that the mind and the body function in concert and not as separate entities (24). Amy Cook sees no such perceptual obstacle, finding embodiment particularly helpful when describing performance: "Language is embodied and performed. . . . Gestures are not just linguistic add-ons; just as verbal language evidences our conceptual metaphors, so must our physical communication. These findings demand an extension of cognitive linguistics into the visual realm; not only is language always embodied, the body is language" (112).

Stanford psychology professor Lera Boroditsky has been investigating how embodied language affects our thought process. In one experiment, she traveled to the Cape York Peninsula of Australia to study a group of aborigines, the Thaayorre, whose relationship to space is different from our own (65). Rather than using egocentric directional markers (left, right, forward, back) as we do, the Thaayorre use geocentric markers (north, south, east, west) to determine the location of everything—for instance, objects in a room, themselves in space, events over time. Someone raised in this environment has an internal compass so highly developed that when placed in a completely dark room, he or she can still point to the north with remarkable accuracy. It is this relationship to the conceptualization and expression of direction and space that Boroditsky uses to develop her argument that language influences thought. English speakers think of time in a horizontal plane (that is, the past is behind us and the future ahead of us), while people who speak Mandarin perceive time vertically (tomorrow is up, yesterday down). The Thaayorre perceive time passing on a geocentric plane from east to west. When asked to place a series of cards in temporal order (from past to present), regardless of the direction they were facing, the Thaayorre always ordered the cards from east to west. This interesting information becomes relevant for us when Boroditsky tests her hypothesis by reversing the equation. In one experiment, she taught English speakers to use processing codes from other languages, as in the Thaayorre's geocentric relationship to time or the Greek's use of metaphor to describe the sizes of things. Boroditsky discovered that, when these English speakers had mastered the new system of expression, their cognitive performance changed to resemble someone speaking Greek or Mandarin, even though they were still speaking English. From this she observed: "But how do we know whether differences in language create differences in thought or the other way around? The answer, it turns out, is both—the way we think influences the way we speak, but the influence also goes the other way" (65). So Boroditsky's research supports Feldman and Lightbown and Spada, indicating from a psycholinguistic perspective that there is a probable two-way relationship between language and thought that is shaped by cultural context. This dynamic applies to anyone who uses a single language to communicate, but I wanted to know if there was anything significant about negotiating two or more languages and cultures. Here is what Boroditsky and colleagues have found: "Bicultural individuals can behave more like members of one culture or another, depending on which culture is cued in the testing context. . . . Language can even influence one's perceived personality, with bilinguals displaying different personality profiles depending on the language in which they are queried" (Fausey et al. 10).

So when Boroditsky (2010) changed the cultural/linguistic context, she changed the perceived personality of her test subjects. How her subjects spoke and the ways in which they were obligated to use language to solve cognitive problems changed the way in which they thought about their environment. This translated into a new cultural perspective: "If people learn another language, they inadvertently also learn a new way of looking at the world. When bilingual people switch from one language to another, they start thinking differently, too." Cook also supports this cause-and-effect relationship by recognizing that how we speak informs who we perceive ourselves to be: "Language exists in a context; it both reflects and shapes the culture of its speakers" (48).

Can Language Change the Way We Feel?

In her article *A Language of Smiles*, evolutionary biologist Olivia Judson identifies a causal link between our facial expressions and moods. If we frown, we will tend to feel angry or depressed; if we smile, we will tend to feel cheerful. But Judson's curiosity extends beyond mood alteration. Recognizing that the articulation of speech requires a related collection of facial expressions, she ponders whether certain languages naturally push the speaker toward happiness or melancholy. A number of studies have interrogated this issue. Using the brain's blood temperature, facial expressions, body posture, and vocal inflection, scientists have identified the ways in which speaking can affect our emotional state; for example, "[t]here is now clearer evidence that facial movement *alone* is capable of inducing changes, albeit small, in the subjective feeling of the individual" (Zajonc, Murphy, and Inglehart 409; emphasis in original). Can we then postulate that performing in English would make us feel differently than when performing in German, and that these different feelings may be activated through sound, gesture, and facial expression?

In 1990, psychologist Daniel Guttfreund discovered that bilingual Spanish–English speakers are more emotional when speaking Spanish, regardless of which language is their mother tongue. Using standard depression and anxiety measures, Guttfreund asked subjects to recall sad personal events in both Spanish and English. What he found was that "it is not the mother tongue but rather the qualities of the specific language being used together with the role that language plays in the individual's life that will have an impact on a bilingual's emotional experience" (606). Social psychologist Nairán Ramírez-Esparza and colleagues have identified the tendency of "bicultural individuals (i.e., people who have internalized two cultures, such as bilinguals) to change their interpretations of the world, depending upon their internalized cultures, in response to cues in their environment (e.g., language, cultural icons)" (118). Here again, we find support that the language we use can change how we think and feel. But there have been some new discoveries in the process of emotion that help explain why a bilingual personality shift was such a surprise to us.

Neuroscientists have begun to differentiate *emotion* (a physiological response to stimuli that often motivates an action) from *feeling* (our interpretation of that response and behavior). What we assumed was the traditional order of events (I see the oncoming car–I feel frightened–I swerve to avoid collision) has now been rearranged (I see the oncoming car–I swerve to avoid collision–I feel frightened) (Blair 37). Neuroscientist Antonio Damasio describes it in this way: "I have proposed that the term *feeling* should be reserved for the private, mental experience of an emotion, while the term *emotion* should be used to designate the collection of responses, many of which are publicly observable" (42). In this reframed scenario, we see that a *stimulus* triggers an emotion, which spurs us to *behavior*, after which we can identify the experience as a *feeling*. If we apply this equation to bilingual performance, we might find the following:

- 1. The actor/character encounters a need (objective/intention) (stimulus)
- 2. The actor/character speaks in a specific language to fulfill that need (action/tactic) (behavior)
- 3. The actor then recognizes what happened (psychophysically) and can choose to identify the meaning of the experience (*I feel like someone else*)

Might it be possible that the sensory imagery (including the sensation of speaking) contained within a dramatic situation creates stimuli that lead to behaviors, which lead to feelings that actors then reference as an identity map in the construction of character?

The Psychophysics of Character Creation

Theatre scholar Rhonda Blair examines how behavior, feeling, and consciousness connect when performing onstage. She begins by defining consciousness. Using Joseph LeDoux's *Synaptic Self:*



Fig. 2 Roger Grunwald as Chris and Petra Weimer as Marina in Outside Inn (Pittsburgh production, 2007). (Photo: Sandra Bertsch.)

How Our Brains Become Who We Are, Blair articulates that everyone's synaptic structures are unique and are formed over time by the experiences that we encounter in the process of living. Whether cultural, intellectual, or emotional, new information constantly creates new synaptic connections. These neural processes define who we are, and this who changes daily as we process and acquire new information. Because acting is as much about doing (things physical) as it is about thinking (things cognitive), Blair extrapolates this idea: "everything that comprises consciousness derives from our physical being. A basic truth about what it means to be human is that there is no consciousness without a body. This is also a basic truth for acting: the body and the consciousness that rises out of it are the core materials of the actor's work" (2-3).

We learn about who we are from what we do. Actors learn about who they are playing from their character's behavior. Our bodies inform our sense of self. Here again, we find support for a circular process: actors determine intention through the given circumstances of the play, and then make choices about how to embody those ideas. The embodiment of an idea (through language and behavior) provides new information about the self and the surrounding reality, pushing the initial impulse to evolve and respond, leading to new ideas, which are then embodied, and so on. As Lutterbie says, "[i]nstead of being merely expressive, [the body] is generative as well. Intentional movements based on given circumstances stir up feelings, which in turn give rise to new motivated activities, which in turn lead to longer sequences that are validated by the intensity of the emotions" (33).

I recently interviewed two of the actors from Outside Inn and asked them to articulate in more detail their experience of playing in two languages. American actor Roger Grunwald played the role of Chris in our production. Chris, Kalowski's business partner, was one of the villains in our story. He lives through a terrible car accident, coming out unscathed with one exception: the accident renders him impotent. While stationed in Namibia, his young wife Marina, lonely for physical intimacy, begins an affair with a native who works on their ranch. Racist Chris, enraged that Marina could betray him with a black man, kills Phil and his brother in a fit of jealousy and then obligates Marina to flee the country with him. This role required Grunwald to access deep wells of anger and pain,



Fig. 3 Petra Weimer as Marina in Outside Inn (Pittsburgh production, 2007). (Photo: Sandra Bertsch.)

something he found easier to play when speaking German: "The character came alive in a way that it didn't in English. The American [English] was too close to me. I dove deeper as an actor into the character because I was protected by the skin of the German . . . I could be other than who I am. Many actors are shy and it is a way to step outside themselves."

Grunwald identifies the language/body/consciousness connection when he talks about "the skin of the German." He also briefly connects the notion of foreign-language performance to that of a mask, suggesting that it is easier to hide who you really are (because you are shy) behind another persona, giving the actor the courage to become someone new. Using the mask of the character to free oneself to behave differently is a device that actors have employed for centuries. Lutterbie describes this dynamic as the relationship between the *body image* and the *body schema*. Body image involves how I imagine myself to be, while the body schema describes the physiological reality of the body as a whole. Although some actors may see these elements as distinct (the mask is not *me*), the relationship between them is complicated and interactive. "The boundary between the body image and the body schema is not clearly defined. Like perception and proprioception, they are intertwined. The image I have of myself is determined in part by what I am capable of doing; at the same time, the image I (want to) have of myself will determine the effort needed to enhance my body schema" (115).

Petra Weimer, one of our German cast members and who created the role of Marina, noticed the bilingual difference early in the rehearsal process. She performs in German, French, and English and was already familiar with the notion of the language personality shift. I asked her to describe her experience of performing in each language:

In English I feel like chewing gum, stretchy and languid. In French I feel like the leaves on a tree—my voice is higher, and I am much more a maiden, very sweet and poetic. In French, it's really interesting, because I feel so light. I feel like a Mermaid. I feel very young and very sweet. I can be a more beautiful woman in French than in German or English. In German we have to be tough to compete with the men and that consciousness has been absorbed by my body.⁴



Fig. 4 Petra Weimer as Marina and Stephan Bruckmeier as Paul in Outside Inn (Pittsburgh production, 2007). (Photo: Sandra Bertsch.)

When pressing her to articulate the specific differences between playing Marina in English and in German, she offered the following:

German is a complicated language. I had this feeling that the play was written in English. English felt so fluid and I really felt it in my body, perhaps because of my sensitivity to pop songs in English. "I love you" is so like a love song whereas "Ich liebe dich" isn't the same. English feels like being in a film. The language tastes better—like sugar and honey. One can really eat the "rr's." English makes it easier to feel sexy.5

Weimer's description contains much bicultural information. Her French and German personas suggest stereotype. She equates speaking English to the movie stars and pop singers she has seen and heard embodying the language. When she speaks American English, she feels as though she has stepped into a movie. Weimer directly connects her experience of speaking English to physical sensation: the language "tastes better," "one can really eat the 'rr's," "I really felt it in my body." Weimer seems to relish the linguistic personality shifts by indulging in the sounds, the facial and gestural expressions, and the cultural associations that transport her to another mode of consciousness. This inclination was evident in her performance as Marina (Chris's wife and Paul's mistress). Marina is an opportunist determined to survive. She witnesses Chris kill her African lover, seduces Paul, and then impulsively flees with him to South America. Weimer took care to fully embody this range of emotional expression during the rehearsal process, but she was particularly interested in rehearsing in English. Although written in German as a German character, she felt closer to the psyche of the character when speaking English and was less enthusiastic rehearsing in German. This visceral, emotional response to the sensations of speaking another language exists for many bicultural individuals. According to Catherine Harris and her coauthors: "One of our colleagues, a native German speaker, resides in North America, where she teaches at a university and lives with her American husband and children. She reports that when on the telephone to her parents in Germany, speaking German feels like 'wearing mittens'" (275).

Blair suggests that language processing and consciousness are comprised of internal and external images of experience, which are triggered by the sensory stimulation of the body—something that we see, hear, taste, smell, feel: "as Damasio so aptly puts it, the only reason the mind exists is because there is a body to furnish it with contents—with images. Consciousness begins to arise when the flow of sensory images is accompanied by images of a self" (78). So who we are is comprised of a neurological response to the images we construct as we engage with the world around us. For our bilingual actors, this experience was complicated by the use of two different linguistic frames. Our two performance languages provided unique psychophysical experiences that shaped specific internal and external responses to circumstance and environment. These responses generated an evolving and dynamic mind—body relationship, creating a particular neurological map that the actors' experienced as distinct characters. Weimer not only felt that the English-language Marina was different from the German-language one, but her mind—body coded this experience differently as she encountered the sounds, gestures, and cultural contexts associated with each linguistic frame.

Conclusion

I chose to direct *Outside Inn* as a bilingual cross-cultural experiment in artistic diplomacy. I hoped that, in spite of our language differences, I could create an environment in which Germans and Americans might learn more about each other. As expected, this came to pass. What we did not expect was to learn that our language differences were a primary platform for cultural information. How we spoke was as significant as what we said; each language determined a different set of embodiment parameters. The actors processed the sounds, gestures, and ideas of German differently than those of English, and their brains were changed by the code switching required to internalize each character within independent linguistic contexts. The actors experienced these linguistic frames as part of the "mask" of character creation, building associative images that generated the sensation of two different characters living in parallel though distinct realities. They did not recognize what was happening until we opened the show because the experience was cumulative and probably imperceptible in the early stages of development. Our discovery was unintentional but informative, providing an unusual though welcomed opportunity to consider how cognitive science and psycholinguistics might inform the creation of character within a multilinguistic context.

Although I began this project with a question in mind, I remained open to the unexpected, knowing that, should I focus too narrowly on one idea, I might miss other more significant information. The discovery of the psychophysics of bilingual performance was an important surprise. My investigation of this phenomenon suggests that language could serve as a gateway for an embodied understanding of other cultures. Could bilingual performance also provide actors another layer of character research? What implications could this have for international productions when presented in a multilingual format? In a time when global experience and cross-cultural understanding are becoming an important part of educational training, bilingual productions may provide critical new information that is useful across multiple disciplines.

Melanie Dreyer-Lude is a theatre practitioner and professor of performance. She specializes in international theatre collaboration, using theatre to promote cultural understanding through bilingual performance. Most recently, she directed and produced S/he in Ithaca, New York, and Istanbul, a bilingual production with Turkish theatre artists exploring the female body as a battleground. Fluent in German, Dreyer-Lude translates and directs contemporary German plays, which have been produced in the United States and Canada and published in international magazines and anthologies. She has directed over fifty productions, including work in the United States, Germany, and Turkey. Currently, she is an assistant professor of acting/directing at Cornell University, where she teaches acting, movement, voice, and directing.

Notes

- 1. Outside Inn by Andreas Jungwirth; translated by Gabriele Schafer; directed by Melanie Dreyer; produced by Melanie Dreyer and Gabriele Schafer; acted by Stephan Bruckmeier (DE), Roger Grunwald (USA), Gabriele Schafer (USA), and Petra Weimer (DE); designed by Stephanie Meyer-Staley, Pei-Chi Su, Eric Leininger, Nicholas Crano, Christopher Maxwell, and James Wong. Premier: Charity Randall Theater, Pittsburgh, 12–15 September 2007. Other engagements: Theater Rampe Stuttgart, 28 September-20 October 2007; American Days, sponsored by the Deutsch Amerikanisches Zentrum, Stuttgart, 1-5 July 2008; 59E59 Theaters, New York, 1-19 October 2008.
- 2. More photographs and video clips of the production are available at http://www.intlculturelab.org/index. php?g=productions>.
- 3. Roger Grunwald, telephone interview with author, 18 January 2012.
- 4. Petra Weimer, personal interview with author, 17 July 2012.
- 5. Ibid.

Works Cited

- Bialystok, Ellen. "Metalinguistic Dimensions." Language Processing in Bilingual Children. Ed. Ellen Bialystok. Cambridge: Cambridge UP, 1991. 113-40.
- Blair, Rhonda. The Actor, Image, and Action: Acting and Cognitive Neuroscience. New York: Routledge, 2008.
- Boroditsky, Lera. "Lost in Translation." Wall Street Journal, 24 July 2010.
- -. "How Language Shapes Thought: The Languages We Speak Affect Our Perceptions of the World." Scientific American, February 2011, 63-65.
- Cook, Amy. Shakespearean Neuroplay: Reinvigorating the Study of Dramatic Texts and Performance through Cognitive Science. New York: Palgrave Macmillan, 2010.
- Damasio, Antonio. The Feeling of What Happens: Body and Emotion in the Making of Consciousness. New York: Harcourt Brace, 1999.
- Fausey, Caitlin M., Bria L. Long, Aya Inamori, and Lera Boroditsky. "Constructing Agency: The Role of Language." Frontiers in Cultural Psychology 1.162, 2010. doi: 10.3389/fpsyg.2010.00162.
- Feldman, Jerome A. Molecule to Metaphor: A Neural Theory of Language. Cambridge, MA: MIT P, 2006.
- Guttfreund, Daniel G. "Effects of Language Usage on the Emotional Experience of Spanish-English and English-Spanish Bilinguals." Journal of Consulting and Clinical Psychology 58.5 (1990): 604–7.
- Harris, Catherine L., Jean Berko Gleason, and Ayse Aycicegi. "When Is a First Language More Emotional? Psychophysiological Evidence from Bilingual Speakers." Bilingual Minds: Emotional Experience, Expression and Representation. Ed. Aneta Pavlenko. Clevedon, UK: Multilingual Matters Ltd, 2006. 257-83.

- Judson, Olivia. "A Language of Smiles." Opinionator (blog), *New York Times*, 27 October 2009, available at http://judson.blogs.nytimes.com/2009/10/27/a-language-of-smiles/?em> (accessed 29 October 2009).
- Jungwirth, Andreas. Outside Inn. Trans. Gabriele Schafer. Frankfurt am Main: Verlag der Autoren, 2007.
- Kershaw, Baz. "Performance Practice as Research: Perspectives from a Small Island." *Mapping Landscapes for Performance as Research: Scholarly Acts and Creative Cartographies*. Ed. Shannon Rose Riley and Lynette Hunter. Basingstoke, UK: Palgrave Macmillan, 2009. 3–13.
- ———, with Lee Miller, Joanne "Bob" Whalley, and Rosemary Lee/Niki Pollard. "Practice as Research: Transdisciplinary Innovation in Action." *Research Methods in Theatre and Performance*. Ed. Baz Kershaw and Helen Nicholson. Edinburgh: Edinburgh UP, 2011. 63–85.
- Lightbown, Patsy M., and Nina Spada. How Languages are Learned. Oxford: Oxford UP, 1993.
- Lutterbie, John. *Toward a General Theory of Acting: Cognitive Science and Performance.* New York: Palgrave Macmillan, 2011.
- Ramírez-Esparza, Nairán, Samuel D. Gosling, Verónica Benet-Martínez, Jeffrey P. Potter, and James W. Pennebaker. "Do Bilinguals Have Two Personalities? A Special Case of Cultural Frame Switching." Journal of Research in Personality 40.2 (2006): 99–120.
- Wray, Alison. Formulaic Language and the Lexicon. Cambridge: Cambridge UP, 2002.
- Zajonc, R. B., Sheila T. Murphy, and Marita Inglehart. "Feeling and Facial Efference: Implications of the Vascular Theory of Emotion." *Psychological Review* 96.3 (1989): 395–416.