Joseph Shaules

# Language, Culture, and the Embodied Mind

## A Developmental Model of Linguaculture Learning

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Joseph Shaules
Japan Intercultural Institute
Tokyo, Japan

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# Chapter 1
# Introduction


In some places, the ability to speak multiple languages is common and everyday. In Nairobi you'll find Kenyans who speak Kiswahili, English, and Kikuyu; In the Netherlands, it seems everyone speaks English in addition to Dutch; In India, millions switch seamlessly between English, Hindi, Bengali, and more. In other places, however, learning a foreign language seems a monumental struggle. In the United States, a miserable 1% of Americans master a foreign language they studied in school. In Japan, despite enormous resources invested in English language education, 90% of adults report having little confidence in using English. In addition, individual learning outcomes vary widely. On the one hand, motivated learners often make progress in less-than-ideal circumstances, while some who have optimal learning conditions make limited progress, e.g., long-term expatriates who fail to master the local language. Under some conditions, it seems, multilingualism is as natural as the air we breathe, while in other situations learners struggle or give up.

These contrasts highlight the deeply embodied and highly cultural nature of language. The languages that surround us when we grow up become a natural part of who we are. Language reflects the social worlds we inhabit and the values and thinking of its speakers. Learning a language provides entry into a community; it allows us to relate to others—comment on the weather, flirt, ask for a raise, and buy groceries. Language is also deeply personal. We use it to express our unique qualities and particular point of view—to stand out or blend in as we wish. Language reflects fundamental elements of our humanity. It is shared with the collective, even as we use it to express that which makes us special.

Given that language is so fundamental to community and self, it should be no surprise that learning a new language is a challenge. When we study a new language, we do much more than acquire knowledge. We must set aside our normal way of being ourselves. We must step out of our comfort zone, both individually and culturally. When we use a foreign language in unfamiliar settings, we are at a psychological and social disadvantage. If our ability is rudimentary, we face a degree of helplessness akin to infancy. To make progress, however, we must subject ourselves to such indignities. No wonder some decide that it's not worth the trouble, lose interest, or resist studying. When all goes well, however, language learning can enrich our lives.



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What starts out feeling constraining ends up being liberating or transformative. We've changed—we've *become* the speaker of a new language; we form new connections, engage with new communities, and express new elements of self.

Intercultural experiences can be transformative in a similar way. When we walk the streets of a foreign land, or find ourselves in foreign situations, we are also leaving our comfort zone. Our habitual patterns of acting, thinking, or perceiving must be adjusted. This may be relatively straightforward, as when we learn the bus system in a foreign city, or practice eating with chopsticks. This adjustment process can, however, be personally demanding. We may need to get used to greeting with a kiss instead of a hug. We may be frustrated with how we are treated, or find local behavior too loud, too quiet, inefficient, or inscrutable. With patience and practice, however, we learn new cultural codes, learn to interpret behavior differently, and learn to relate in new ways. We may even learn to switch back and forth between different cultural points of view, or experience the world as a multicultural person. As with foreign language learning, cultural learning allows us to gain access to new realms of experience and self.

**An integrated approach to pedagogy** This book focuses on these deeper processes of language and culture learning, and argues for an integrated approach to language and culture pedagogy. As we will see, language learning and culture learning are often talked about in very different ways—language learning is often seen as the acquisition of knowledge and skills. Cultural learning is often discussed in more idealistic, abstract ways—as awareness or critical understanding. This book will argue, however, that from the perspective of embodied cognition and the unconscious mind, language and culture learning are similar processes. This book's main message is that learning to communicate in a new language requires embodying a complex set of foreign socio-cognitive patterns. It is an adaptive process—we are responding to the demand for change that language learning requires. Put simply, both language and culture learning require change at deep levels of mind and self.

This work formalizes these assertions in a learning model—the Developmental Model of Linguaculture Learning (DMLL). The DMLL describes language and culture learning within a single conceptual framework, in order to encourage more integrated approaches to language and culture pedagogy. Grounded in a socio-cognitive perspective, it argues against seeing language learning primarily in terms of information processing or repetitive skill practice. It argues, instead, for a *deep learning* approach to both language and culture pedagogy—a transformational process of development and change. It doesn't simply advocate for adding cultural learning goals into foreign language pedagogy. Instead, it argues that language and culture are intertwined at such deep levels of the mind and self, that both can be understood in similar terms. This idea is reflected in the word *linguaculture*, which emphasizes the idea that language and culture are two parts of a larger whole. And while the DMLL draws on ideas from brain and mind sciences, such as embodied cognition, complexity, and dynamic skill theory, its goal is not a technical description of learning processes. Rather, it hopes to inform the way we think about language, culture, and learning—and thus the mental models we rely on when we plan our lessons.

**The need for learning models** Learning models are essential and unavoidable for educators. It is impossible to put together a lesson, write a textbook, or design a curriculum without some way of thinking about how people learn, desired outcomes, and how to reach those goals. Any sort of teaching is necessarily grounded in assumptions about learning held by the educator. As Larsen-Freeman (Larsen-Freeman and Cameron 2008) points out, when we don't have formal models to rely on, our thinking is often guided by metaphorical understanding:

> Metaphors are not just literary tools for ornamenting language; they are indispensable to the human mind. Whenever we have to contemplate the abstract, voice the difficult or make sense of the complicated, we turn to metaphor. Metaphor enables us to 'see' or understand one thing in terms of another, through analogies or mappings between two conceptual domains. (p. 11)

Metaphors and formal models both shape and reflect the way we think about learning. We may think of learning in terms of adding to our students' store of knowledge (a banking or storehouse metaphor) or think of memory as a muscle that must be exercised. A learning model takes this mental imagery a step further. As Larsen-Freeman puts it: "when a metaphorical idea is developed into a collection of linked metaphors that are used to talk and think about some aspect of the world, it starts to function as a model or theory" (p. 12.). Such a model provides a formal description of how something works, such that we can better achieve the outcomes we desire.

Good models help us clarify our thinking and lend themselves to practical application—as Lewin (1951) famously said, "there is nothing more practical than a good theory." The term *theory* is typically associated with attempts to explain a phenomenon, while models provide a simplified representation of that phenomenon with a particular purpose in mind. Models tend to be simpler than theories, although there can be great theoretical sophistication incorporated into a model. Ideally, models should be intuitively easy to grasp yet provide insight into complexity. They should reflect salient aspects of an externally verifiable reality and provide guidance for accomplishing the objectives relative to that model.

Yet models necessarily represent a simplification—a way of making sense of something that is inherently complex. Different models may be useful for different purposes because they highlight different elements of a phenomenon. By way of analogy, a topographical map—one that shows the elevation of natural features—will look very different from a tourist map that shows popular landmarks and transportation networks. These maps will look very different, but neither is wrong. Models outline processes and act as navigational guides, and shouldn't be mistaken for a full theoretical description of the phenomena they are representing.

In the field of language education, models can be distinguished from methods, which generally refers to a set of techniques unified by a particular way of understanding learning (Krashen 1982; Stevick 1976, 1980). *The Silent Way*, for example, is a teaching method developed by Gattegno (1963) that emphasized silence to focus learner attention. Models and methods can also be distinguished from an *approach*, which refers more broadly to a set of principles or assumptions about learning. Different approaches may focus on different elements of a phenomenon, such as when

we speak of a *cognitive approach* to understanding second language acquisition, as opposed to a *sociocultural approach* (Ellis 2008). Approaches can also be developed for particular pedagogical purposes. For example, different authors have articulated the principles of an intercultural approach to language teaching (Byram et al. 2002, 2017; Corbett 2003; Liddicoat and Scarino 2013). This work incorporates a socio-cognitive approach—its theoretical assumptions are grounded in the empirical study of cognitive processes. This work also represents a humanistic approach—it sees language and culture learning in psychological terms, as personally meaningful, with potential for human growth and development.

Assumptions about learning are more than theoretical abstractions. They shape our thinking about pedagogy. For example, if we think of learning in terms of information processing, we are more likely to feel our students need correct input to make progress; if we think of memory like a muscle, we may focus on strengthening it through repetition. If, on the other hand, we think of learning as an embodied phenomenon, we are more likely to emphasize experiential learning that is meaningful and contextualized. This work seeks to spark discussion about approaches to language and cultural learning. It argues against the notion that language learning is fundamentally a psychological neutral, primarily intellectual pursuit. It sees both language learning and cultural learning in terms of development and growth. Language and culture learning change us, and help change the world by building bridges of intercultural understanding.

**A transformative perspective** This book has been informed by the author's experience growing up in the United States, where bilingualism is common but language learning is rare. I nearly failed Spanish classes in high school, only to have my interest piqued by foreign tourists at my part-time job. It has been informed by 3 years in Mexico, 2 years in France, and many years living and working in Japan. There, English is considered the entry point for intercultural living and enormous resources are invested in language education—often with frustrating results. I have witnessed the struggles of learners who believe that English is important, yet feel little progress after years of study. I have researched the cultural adjustment of long-term expatriates, some of whom speak the local language poorly. I teach foreign students living in Japan, and Japanese students heading abroad. I spent 2 years in France, where I re-experienced culture shock and struggled with French pronunciation. I have studied the intercultural effects of globalization in Bali, while taking virtual classes in Indonesian with teachers in Yogyakarta, Java.

Over the years, I have been struck by how we take language and culture for granted, and how difficult, yet enriching, language learning and intercultural experiences can be. I see that we often want to learn a foreign language, even as we feel lazy about doing so. I see that globalization does not always lead to intercultural understanding—indeed it can lead to intolerance. I see that translation apps are not a substitute for language learning, and that cultural difference will not go away because of technology. I have come to believe that our linguistic and cultural habits of mind affect us more than we realize, and that learning a foreign language—together with the intercultural experiences that go along with that—have the potential to be truly

transformative. Language and cultural learning have been deeply meaningful for me, and I hope this work helps others see it that way as well.

**How this book is organized** This book was written with three types of readers in mind: (1) language teachers interested in cultural learning; (2) intercultural educators, for example, those preparing students for a stay abroad or teaching a course in intercultural communication; (3) scholars interested in learning theory as it relates to language and culture pedagogy. It is organized so that different readers can find what is useful for them. It is separated into three parts: (1) Background, (2) Theory, and (3) Practice. Each chapter in Part I reflects on a major theme related to language, culture, and learning, including *globalization and deep culture* (Chap. 3), the *intuitive mind* (Chap. 4), *deep learning* (Chap. 5), and the *psychology of linguaculture learning* (Chap. 6). Part II describes the Developmental Model of Language Learning in more theoretical detail. Chapter 7 discusses how the DMLL fits into existing language and culture scholarship. Chapters 8 and 9 explore the relationship between language and culture. Chapter 10 describes the theoretical assumptions of the DMLL, and Chap. 11 describes its four levels of learning in more detail. Part III provides examples of how the DMLL has been put into practice. Chapter 12 answers some FAQs for educators. Chapter 13 focuses on how the DMLL can inform foreign language pedagogy, while Chap. 14 focuses on culture learning pedagogy. This is followed by a brief concluding chapter and suggested readings. To allow readers to skip around, each chapter (and each section) has been written to largely stand-alone, including some restating of key ideas. Readers are encouraged to focus on elements of particular interest to them.

**Simple but deep** The model presented in this book is intended to be simple but deep. That is to say, its core ideas and developmental levels are easy to grasp intuitively—comprehensible even to beginning learners. At the same time, language, culture, and learning are dynamic and complex. Deeper understanding requires a willingness to take on some theoretical complexity. Ultimately, however, outstanding teachers are not those who have studied the most theory—they are those who, through experience and experimentation, have developed a "feel" for how learning happens, how to structure learning activities, and how to bring their unique passion and creativity into their work. The best educators make their work look simple—precisely because of their deep understanding.

You can't get this sort of mastery from a book. It is hoped, however, that the ideas in this book will serve as a point of departure for reflection and experimentation—not simply as an intellectual exercise or set of theoretical arguments. If this work provides food for thought to practicing teachers—something that allows them to look at their work in new ways—it will have achieved its goals.

# Part I
# Background: Deep Learning, Language and Culture

# Chapter 2
# Deep Language and Culture Learning


**Abstract** This chapter gives an overview of the themes of this book. It points out that despite obvious connections, language and culture are often considered separate domains of learning—*acquisition* of linguistic knowledge and skills versus development of *awareness* or higher ordered perception or cognition. This split makes it difficult to consider both within a single pedagogical framework. This work hopes to help reconcile this dilemma. It argues that language learning itself should be seen as an intercultural endeavor, similar to adjusting to a foreign environment. It introduces a *deep learning* approach to understanding this process. Deep learning refers to the process of embodying complex domains of socio-cognitive knowledge, and distinguishes between surface (conceptual and explicit) knowledge, and deep (intuitive and implicit) knowledge. While language and culture are largely separate at the level of surface knowledge, they are argued to be interrelated domains at the level of deep knowledge. The deep learning perspective allows us to see language and culture learning as fundamentally similar processes. This chapter also includes a brief introduction to the Developmental Model of Linguaculture Learning (DMLL), the core offering of this book.

## 2.1 Odd Contradictions

There is an odd contradiction at the heart of language and culture learning. On the one hand, there's a clear, commonsense link between language and culture. Language and culture are, so to speak, two sides of a single coin—language reflects the thinking, values, and worldview of its speakers. Thus, mastering a foreign language requires navigating unfamiliar cultural terrain. Using a foreign language requires new ways of ordering our thoughts and interacting with others. A German learning Chinese, for example, must learn about and try to understand the perspective of Chinese speakers. Learning a foreign language can lead to meaningful intercultural experiences, e.g., travel, foreign friends, life abroad. Even learning a highly internationalized language, such as English—which is not associated with a single country or precise "target" culture—involves interacting with new people in foreign settings. It requires the



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development of novel communicative habits—learning to think, act, and relate in new ways. In many ways, language learning is indeed an intercultural experience.

Despite these obvious connections, there is a persistent split between language and culture—both in academia and the classroom. The scholarly study of language (linguistics) is largely separate from the study of culture (anthropology). Professional associations that deal with language learning often have little to say about culture, and vice versa. This split is also found in pedagogy. While cultural understanding is clearly important when communicating in a foreign language, many language classes focus almost exclusively on linguistic forms and information exchange. Reflecting this, we often talk about *language learning* but seldom refer to *culture learning*. This is true even among specialists, as the former is studied under the rubric of *second-language acquisition*, while there is no equivalent term such as *second culture acquisition*.

This split is even more odd when we consider that cultural learning—defined as *having foreign experiences and gaining cultural insights from them*—is one of the most exciting things about language learning. The study of language forms in isolation is tedious—few learners enjoy memorizing vocabulary or studying grammar. Language learning is most engaging when it's contextualized and alive—when we communicate about things that are important to us, with real people, and in foreign situations. Learners who get "hooked" on learning a foreign language often do so because of an interest in foreign things, or because of foreign experiences. Sometimes, the smallest foreign-culture spark—foreign music, movies, manga, a trip abroad—lights the fire of language learning and supplies motivational fuel. Indeed, it's unusual to meet someone who has mastered a foreign language *without* some interest in foreign experiences.

Among educators, the conceptual split between language and culture is reflected in dichotomous thinking about teaching and learning. Foreign language pedagogy is often conceptualized in terms of gaining knowledge and practicing skills, which helps learners bridge an "information gap" (Corbett 2003). Cultural learning goals, on the other hand, are often conceptualized in more abstract, idealized terms, such as *awareness* (Gaston 1984; Tomalin and Stempleski 1993), *intercultural communicative competence* (Alptekin 2002; Byram 1997), or *criticality* (Diaz 2013). These contrasting notions create competing mental frameworks for teachers: (1) language learning conceived of as a process of *acquisition*—gaining knowledge and skills, and (2) cultural learning, thought of in terms of *awareness*, or some abstract, higher order ability or form of perceiving. This can lead to the sense that language learning and cultural learning are fundamentally separate processes—gaining concrete knowledge and skills versus developing abstract higher level abilities. Thus, even if we see connections between language and culture, we may feel the need to choose between them in the classroom. Should I spend today's lesson doing concrete language practice? Or should I set that aside and focus on abstract issues of culture? The odd contradictions of language and culture leave us stuck on the horns of a pedagogical dilemma.

## 2.2 Toward a More Integrated View

This book seeks to help reconcile this dilemma. It is aimed at language educators who bring an intercultural perspective to their work, and who seek a deeper, more meaningful connection between language and culture learning pedagogy. More broadly, it is intended for educators who seek to make language and/or culture learning more deeply meaningful. Many teachers see that intercultural understanding is a necessary ingredient for using a foreign language successfully, and they want language learning to lead to intercultural insights. Many seek to do more than explain vocabulary or drill students in linguistic patterns; they want to inspire as well as instruct. They understand that language and culture learning can open doors to new experiences; new relationships; new perspectives; and new forms of self-expression.

Passionate teachers find many ways to inspire their students and encourage these deeper outcomes. Yet the language–culture dichotomy creates a conundrum—it makes it harder to translate the dual passions of language and culture into a unified approach to classroom practice. It leaves fundamental questions unanswered: How does culture learning relate to language learning—is it a higher order skill needed by advanced students? What should cultural (or intercultural) learning objectives be? How can they be developed over time? Are there levels of intercultural understanding? How do they fit into language skill practice? Is specialized knowledge necessary to bring culture into the classroom? How can a more integrated view of language and culture be put into practice pedagogically? The odd contradiction of language and culture learning—they are closely related but treated separately—makes finding answers to such questions a challenge.

This work explores these issues and offers an approach to integrating language and culture pedagogy. It asks simple-sounding but complex questions: (1) What is the relationship between language and culture? (2) How does learning a language relate to the process of gaining intercultural understanding? (3) How can cultural learning be better integrated into foreign language pedagogy? A starting premise of this book is that while such fundamental questions do not have simple answers, educators should reflect on them because they are so foundational to the work that we do. In looking for answers, this work will argue that language learning is not simply an additive process of gaining knowledge and skills. Rather, it is adaptive—that is to say, it requires a deep restructuring of socio-cognitive processes. Thus, the mental and psychological challenges of learning a new language parallel the challenges we face when adapting to a foreign environment. Language learning itself is a form of cultural learning, and should be understood as such.

## 2.3 A Deep Learning Perspective

This work emphasizes *deep learning*. As discussed in more detail in Chap. 5, traditional forms of pedagogy emphasize teacher explanation, information recall, and conceptual understanding. The notion of deep learning, on the other hand, emphasizes

engaging learners at multiple levels of the self. Deep learning is personally meaningful and involves an active process of experimentation and experiential learning. Deep learning is transformational—it changes the way we experience things and look at the world. For language and culture learners, this means that new linguistic and cultural patterns are integrated at deep levels of the self—a new language becomes part of who we are, and a way to express our unique qualities. Cultural learning provides new ways to understand people and situations; learners have a sense of entering into new cultural worlds. Deep learning has a bigger impact on students, and on the world as well.

This work not only describes deep learning as an educational ideal, but also draws on brain and mind sciences to understand the socio-cognitive processes involved. As used here, the notion of deep learning is grounded in our increasing understanding of unconscious forms of cognition—or the *intuitive* mind—as contrasted with more conscious, analytic forms of cognition. Drawing on these insights, this work defines deep learning as the *process of embodying complex knowledge and skills into our intuitive mind*—the mental "autopilot" that we rely on to navigate everyday life. Such learning is "deep" in the neurocognitive sense, in that it results in deep forms of knowing—*mastery* of complex skills, *insight* into linguistic and cultural patterns, and *intuitive understanding*—a feel for how to use a language and how to make sense of other cultural worldviews. This work describes this process in the form of a developmental model, which both students and teachers can use to guide learning. This book is, in effect, a description of the deep learning process as it relates to language and culture.

A deep learning approach helps us conceive of language and cultural learning in a more integrated way. It makes a distinction between surface (conceptual) knowledge, and deep (intuitive) forms of knowing. At the surface level of intellectual understanding, language and culture inhabit separate domains, yet at deeper levels of cognition and self, language and culture are closely related. This integrated view represents a subtle, yet important shift in how we approach language and culture pedagogy. Rather than saying we should *add* culture to language pedagogy, it encourages educators to see both language and culture pedagogy in terms of *deep learning*. Thus, rather than asking how we can add culture into language education, we should be asking how we can make pedagogy deeper.

## 2.4 A Starting Metaphor

An integrated view of language and culture learning requires an important, mental adjustment. In order to go beyond seeing language learning and cultural learning as separate processes, we must develop a metaphorical understanding—a mental picture—that allows us to see both as part of a larger whole. This work does this by looking at language and culture learning as an *adaptive process—learning and change that emerges as the result of the adaptive demands of a foreign experience or environment* (Fig. 2.1). In this view, language and culture learning involve the

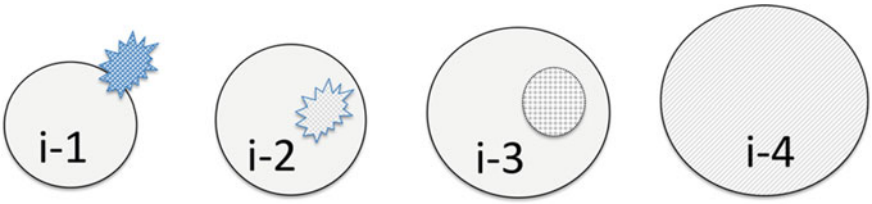


**Fig. 2.1** The embodied transformation of language and culture learning

embodiment of new systems of meaning—a process that entails inner change, psychological adjustment, and some form of inner transformation. This adaptive process is grounded in the biological imperative of all living things to protect themselves from damaging elements and seek out nourishment. That's why this diagram of language and culture learning looks so much like phagocytosis, the process by which a cell engulfs or "eats" foreign matter into itself. Once this foreignness has been embodied and integrated, the cell is enriched and transformed.

This work proposes that language and culture learning both involve adaptive processes—they modify the internal structures that we use to interact with the world. This requires internalizing a complex domain of knowledge such that it is experienced as an extension of the self. New linguistic and cultural knowledge becomes a part of our perceptual and communicative architecture and a medium for self-expression. Show Fig. 2.1 to learners, and they easily understand that it represents the attempt to integrate a new language into the self. At first, new linguistic and cultural patterns are experienced subjectively as alien or foreign—a new language sounds "funny" and people from foreign places are "different". As we learn more, however, these patterns become more integrated into our way of thinking, acting, and communicating—into the psychological territory of the self.

**Predictive processing** The idea that we learn through a process of adapting to the world around us is not only a metaphor. It also fits our current understanding of human perceptual processes. While we might think that our senses simply report information about the world—as though our eyes were cameras and ears are microphones—research in psychophysiology reveals this impression to be misleading. In fact, the cognitive structures of perception are organized in terms of *predictive processing* (Friston 2011). To understand the world around it, our brain acts as an inference machine—a "predictive organ that actively generates predictions of its sensory inputs using an internal or generative model" (p. 248). We can notice this in everyday life when we pick up something that we expect to be heavy, only to be surprised by how light it feels. Predictive processing allows for efficient use of scarce cognitive resources. Our brain doesn't need to perceive and interpret everything going on around us. Rather, it only needs to identify anomalies based on the patterns of previous experience.

Predictive processing relates not just to physical perception, but also to our interpretations of the world and what things mean. It allows us to fill in the gaps of spoken speech, and "read between the lines" when interpreting behavior. Navigating

social interaction draws on "our beliefs about the intentions of others" based on an "internal model of self in relation to others" (p. 248). We rely on an intuitive sense for what things mean, and how the world works, and what to expect from others. The predictive nature of cognition renders us highly sensitive to novelty in foreign settings—we notice details which contrast with what we are used to back home, and are puzzled or bothered when people behave in unexpected ways. In this way, experiencing foreign patterns in our environment—whether linguistic or cultural—triggers an ongoing process of learning and adaptation, as we attempt to integrate new information into our understanding of the world. Predictive processing is a central organizational feature of our cognitive systems, and as such drives both language and cultural learning.

## 2.5 A Neurocognitive Perspective

This work draws on a number of insights from brain and mind sciences, in addition to the idea of predictive processing. Recent years have seen an extraordinary expansion of knowledge about the brain and its mental processes—(Hassin et al. 2007). This is shedding light on areas of knowledge of interest to educators. For example, we now better understand that the cognitive processes involved with language and culture do not exist in some purely mental realm; they are integral to the whole organism, and are thus felt at deep levels of the self (Shapiro 2014). Language use is not simply a form of information processing—it is *embodied*; it is highly integrated with our feelings, our life experiences, our cultural background, and our sense of self (Vega 2015). Similarly, cultural knowledge is integral to the very fabric of our perceptual processes, and influences cognitive styles, emotion, and identity (Markus and Kitayama 1991; Shaules 2014). Furthermore, linguistic meaning is not simply the manipulation of symbols, it involves *embodied simulation*—a re-creation of the experience associated with words (Bergen 2012). Put simply, linguistic meaning is not only embodied, it is grounded in the shared experience of a linguaculture community, and thus is cultural by its very nature.

This work also draws on brain and mind sciences by focusing on the idea of the *intuitive mind*—the largely unconscious forms of cognition that we rely on to navigate the routines of our everyday life. This work will argue that deep learning involves a restructuring of this cognitive autopilot. This provides new ways to look at *intercultural understanding*. This work will argue that the most important elements of cultural understanding are not related to higher forms of abstract cognition such as critical thinking or reflective awareness. Rather, intercultural insight and understanding is primarily an intuitive process of pattern recognition—the ability to understand social expectations and correctly interpret behavior. It is experienced as a sense for what things mean, a gut reaction to those meanings, and the subjective feeling that we can enter into other cultural worlds.

Deep cultural learning can lead to the intuitive ability to shift perceptual frames of reference—shall I look at this situation from the Egyptian or Senagalese point of

view? This ability does not, however, depend on conceptual understanding. Instead, it develops over time through a process of cognitive mapping and trial and error. This explains why experienced interculturalists who have never studied cultural concepts often still exhibit highly developed intercultural abilities—even if they can't explain them. Conversely, teaching abstract concepts about culture doesn't necessarily lead to intercultural insight. Cultural learning is, at its core, an experiential process that leads to intuitive insight, independent of conceptual understanding. In this way, looking at cultural learning in terms of socio-cognitive processes provides a way to go beyond the idea that cultural learning is a high-level cognitive process that is separate from language learning.

**Hard science and a soft heart** Speaking in terms of the brain or cognitive processes may sound reductionist—something that turns learning into a technical description of neural networks or synaptic relays. In fact, the opposite is true. A neurocognitive perspective highlights the integrated nature of thought and feeling; body and mind; nature and nurture. It helps us understand the dynamic complexity of language and culture. It also helps us see the learner in more dynamic, complex, and holistic terms. Far from turning learning into a technical pursuit, it requires a view of the learner that is humanistic. It takes us beyond the information-processing view of language learning—the idea that we simply need to master a new symbolic code. It moves us away from abstract idealizations about intercultural awareness. It sees learning in experiential terms, and as something that touches at deep levels of the self. It includes respect for the hard sciences but it is also suited to those who tend toward a soft heart—a focus on personal growth and the learner as a whole person.

## 2.6 Pedagogical Implications

This work will argue that seeing language and culture learning as an adaptive process has important pedagogical implications. It allows us to go beyond the view of culture as an element that should be added to language classes. Instead, this work proposes that language and culture learning happen in fundamentally similar ways. Indeed, from the perspective of adaptive processes, language learning itself can be seen as a form of cultural learning.

This may seem counterintuitive. Language learning is often considered a unique, singular process—the acquisition of a symbolic code or the mastery of an information system. This view is misleading. From the perspective of embodied cognition, both language and culture learning involve an inner adjustment in response to adaptive demands. A sojourner walking the streets of a new country, for example, must take in and learn from the foreign cultural patterns they encounter in order to better get along in their new environment. Learning is sparked by cultural difference—the gap between one's mental habits and the patterns in one's environment. As we become accustomed to these new patterns, we gain an intuitive understanding of

them. In this view, cultural learning is fundamentally a process of adaptation and adjustment.

Both language and culture learning require such internalization of foreign patterns—complex bodies of knowledge must be integrated into our minds and put to creative use. Language and culture are not just information systems or sets of rules—they are embodied at the deepest levels of mind and self. Even when there is no clearly defined cultural community, language learning itself is an adaptive process. To make progress, learners must wrap their tongues around foreign sounds and internalize foreign linguistic patterns. They must take on new ways of thinking and learn to express themselves in new ways. This often involves dealing with foreign people and situations, accommodating cultural difference, and developing new forms of self-expression. This adaptive process requires a deep form of learning—taking in a complex body of knowledge that is foreign, and making it a natural part of the self.

Seeing language and culture as an adaptive process takes us beyond the idea of adding culture to language pedagogy. Indeed, it turns it on its head. Instead of focusing on language learning as a universal process to which we add cultural learning objectives, it assumes that cultural learning is a universal process of which language learning is simply one part. This represents a broad notion of cultural learning grounded in evolutionary biology. In unfamiliar settings, we seek to understand our surroundings and find our place in it—whether at a party or in a foreign country. We feel adaptive pressure because of our fundamentally social nature—a need to connect with others and avoid alienation. This process of adjustment and adaption to unfamiliar surroundings is typical of humans everywhere—it is built into our evolutionary biology as social primates. Learning a new linguistic system is simply one part of this broader phenomenon.

**Learning a dead language** All of this is not to say, of course, that language *cannot* be treated separately from cultural learning. A foreign language can be studied as a purely intellectual challenge—as with the academic learning of Latin. Countless classrooms serve up a foreign language as though it were a dead language—as words to remember and structures to be explained and tested. Yet it's hard to engage fully with such intellectualized learning. In the long run, effective pedagogy requires that we treat language as a living thing—as something that is experienced, not simply remembered, or analyzed. From the cognitive perspective, focusing primarily on linguistic forms constitutes a pedagogical shortcut. It emphasizes conceptual knowledge at the expense of intuitive understanding and personal engagement. It is effective primarily in the short term, for purposes of test-taking or intellectual understanding. It's hard, however, to sustain over the long term.

There do seem to be some (typically high aptitude) learners, who successfully treat foreign language study largely as a mental challenge. This includes some hyperpolyglots who speak a dozen or more languages. Such individuals, however, seem to have a neurology that is highly sensitive to linguistic patterns (Thurman 2018). Just as a talented musician gets pleasure from learning new pieces of music, a talented language learner may enjoy language learning for the sake of its linguistic

forms, independent of intercultural experiences. For typical learners, however, language learning as a form of mental gymnastics is difficult and discouraging—it cuts language off from the intercultural roots that animate learning. It taxes the limited capacity of the conscious mind for focused attention, while starving the experiential, pattern-based, social learning of the intuitive mind. It turns people off to learning because it activates such a narrow band of engagement. It feels artificial. Effective pedagogy requires bringing language to life.

**Linguaculture** The idea that language and culture are highly integrated is not new. It is grounded in the notion of *linguaculture*, a term first used by the linguistic anthropologist Paul Friedrich in relation to language, ideology, and political economy. He maintains that "what we conventionally call 'language' and 'culture' constitute a single universe of its own kind" (Friedrich 1989). Other scholars have elaborated on this. Diaz refers to linguaculture as the "language and culture nexus" (Diaz 2013). The term linguaculture emphasizes how language reflects the way that its speakers make sense of the world. Claire Kramsch expresses this dual nature of linguaculture with the metaphorical question: "How can we tell the dancer from the dance?" (Kramsch 2002). This work draws inspiration from this more integrated view, and refers to *linguaculture learning* as a way to emphasize the fundamentally intercultural nature of language learning. It also serves as a foundation for the idea that language and culture learning are two interrelated domains of learning.

## 2.7 Complex Skills and Dynamic Skill Theory

As a way to understand the linguaculture learning process, this work introduces a learning model—the Developmental Model of Linguaculture Learning (DMLL). The DMLL is intended as a learning aid for the classroom, and a pedagogical model that can inform class planning and teacher education. While based on insights from educational neuroscience, the organizational framework of the DMLL can be represented in simple form as in Fig. 2.2. Learning is represented as a process with four developmental levels: data, mapping, systems, and systems-of-systems—each representing ever-more complex forms of mental processing.

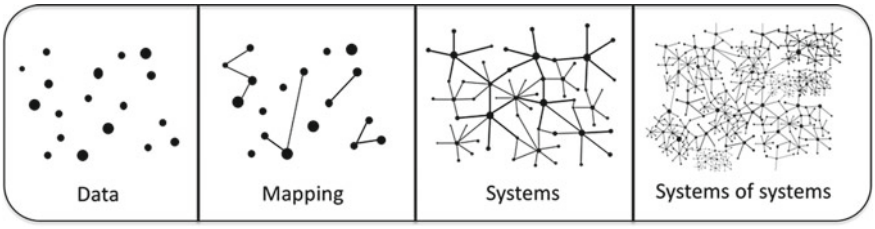


**Fig. 2.2** DMLL levels of learning (adapted from dynamic skill theory)

These four levels were not created arbitrarily. They are conceptualized in line with *dynamic skill theory* (DST), a neo-Piagetian approach to understanding learning and development (Fischer 1980; Fischer and Bidell 2006). DST is grounded in an understanding of how the brain creates new neural structures and how the brain acquires complex skills. *Complex skills* refer broadly to domains that are systematic yet dynamic, and that function as more than the sum total of their parts. The notes of a scale, for example, can be combined in an infinite variety of ways, such that complex music emerges from the interaction of these simpler elements. Thus, learning to play music is a complex skill, and requires more than knowing the 13 notes of the scale, just as cooking requires combining ingredients into a creative whole. Complex skills combine different domains of knowledge into a holistic ability that is greater than the sum of its parts.

A foundational insight of DST is that the brain does not acquire new skills in a predictable piece-by-piece fashion. Rather, skills are built up at exponentially higher levels of complexity, with abilities going through *phase shifts* to higher levels of functioning. Learning to cook, for example, requires discrete knowledge of particular ingredients or particular skills (data), but also requires combining those ingredients in meaningful ways (mapping), such that a finished dish emerges as the product of a creative process (systems). The ability to cook creatively can then extend to other domains of knowledge (system-of-systems) such as different cuisines, or an understanding of how to run a restaurant. The critical insight of DST is that learning complex skills require more than adding new bits of knowledge in a cumulative fashion. Simply learning about many new ingredients, or trying many different recipes, doesn't in and of itself make one a skilled cook. That requires a dynamic process of experimentation and integration in a process of *emergence*—when new levels of ability come together in a process of creative self-organization.

## 2.8 The Developmental Model of Linguaculture Learning

A starting assumption of the DMLL is that both language and culture learning involve the development of complex skills, and thus follow the developmental progression of dynamic skill theory. We know, of course, that language and culture are complex. The words of a language can be combined in infinitely complex, yet systematically restrained forms. Cultural patterns too, emerge from the complex interaction of individuals that form cultural communities, who interact in creative yet constrained ways. Learning processes are also complex. Language learners, for example, may experience a long plateau of seemingly little progress, punctuated by sudden breakthroughs. Cultural learners sometimes have *Aha!* moments of sudden insight that gives them a new perspective. These intuitive leaps are a hint that language and culture involve abilities that emerge through a connective process of increasingly elaborated cognitive structures.

The DMLL acts as a way to make sense of the process by which learners reach higher levels of linguaculture learning. As represented in Fig. 2.3, the DMLL labels

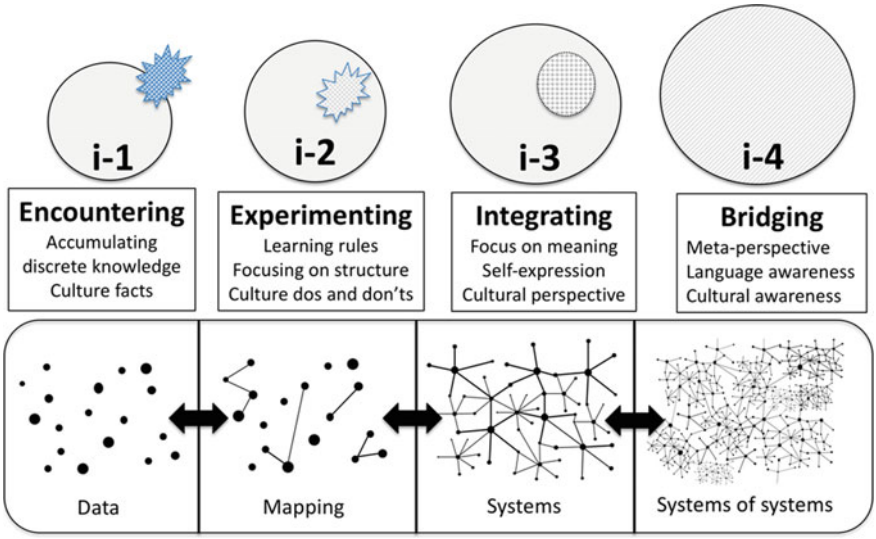


**Fig. 2.3** The developmental model of linguaculture learning

its four levels of learning as: i-1 encountering; i-2 experimenting; i-3 integrating; and i-4 bridging. These levels describe learning as a developmental process. Early on, learning most frequently involves (i-1) *encountering* **discrete elements** of new knowledge—as when language learners attempt to memorize vocabulary words, or cultural learners acquire facts about a foreign country. As discrete elements are integrated, learners increasingly begin (i-2) *experimenting*—a process of **connecting and mapping** discrete elements. At this point, language learners may be constructing sentences, or making sense of more complex features of the language. Cultural learners may go beyond simple facts and think more situationally, as when learning about etiquette.

As mapping continues, learners begin a process of (i-3) *integrating* what they are learning into a dynamic and **systematic understanding** that can be applied creatively. This is the point at which linguistic and cultural knowledge becomes a medium of creative self-expression. Language learners may find themselves losing themselves in the act of communicating, whereas cultural learners may find they are increasingly able to look at issues from alternative perspectives, or do cultural code switching. Beyond this, learners may then focus on (i-4) *bridging* this systematic knowledge to other domains—creating a **systems-of-systems** understanding that is experienced at higher levels of abstraction and sophistication. These four levels of development—*encountering*; *experimenting*; *integrating*; *bridging*—form the conceptual core of the DMLL. The levels are referred to using the mnemonic shorthand i-1, i-2, i-3, i-4. The "i" acts as a reminder that the learning process involves the *integration* of new knowledge, and that this can lead us to *identify* with that domain—it is experienced as integral to the self.

The bottom portion of Fig. 2.1 represents levels of cognitive complexity. The arrows between the levels indicate that we shift back and forth between different levels of learning depending on the context. Importantly, these four levels are not *stages*—that is to say, *learning does not progress predictably from one stage to another without going back*. By way of comparison, once a young child starts to walk—reaches the walking stage—they don't go back to crawling. Language and culture learning, on the other hand, involves a complex, multilevel form of development. Even the most experienced language learner (i-4), for example, will look up individual words (i-1), carefully piece together sentences (i-2), and speak freely and creatively (i-3) depending on the context. The DMLL seeks to incorporate the complexity of this process—one that can involve sudden leaps of insight, learning plateaus, and an unpredictable developmental trajectory.

The circles at the top represent the experience of learners as they internalize and embody foreign linguaculture patterns. They represent linguaculture learning as a *transformational process*. This is not to say that the learner becomes a different person through linguaculture learning. As learners develop more complex skills, their experience of learning changes. What was experienced as foreign and external is increasingly experienced as a natural part of the self. The ultimate goal of learning is seen as deeper—more intuitive, integrated and embodied—forms of understanding through which learners relate to the world in new ways.

The four levels of the DMLL helps us see language and culture learning as an interrelated process. The descriptive boxes in the middle include elements of cultural, as well as linguistic, learning. This allows us to see similarities in the learning process, even as we draw distinctions in terms of developmental level. We might have a learner, for example, who has gained considerable fluency with a foreign language—they often function at the i-3 level—yet who still has a relatively simplistic intuitive understanding of culture. They might perceive of cultural difference simply in terms of knowing about foreign foods (i-1 = discrete facts) or etiquette rules (i-2 = rule-based thinking). They may still not be able to shift cultural points of view in a more holistic and systematic way, as would be the case at the i-3 level. In this way, the four levels of the DMLL provide a single framework that we can use to understand both language and culture learning.

## 2.9 The DMLL as a Roadmap to Learning

**A roadmap for learners** The DMLL can be introduced to learners as a way of understanding the language and culture learning process—serving as a developmental roadmap to learning. Understanding the developmental progression of the DMLL helps learners see how different forms of learning build on each other. Language requires learning individual items (i-1), such as vocabulary or rules about grammatical structures, but also actively combining those to create complex structures (i-2). Fluency emerges when those new structures start working together holistically and

systematically (i-3). When learners actively relate that process to bodies of knowledge in other areas of their life, they gain even deeper insights into the learning process (i-4). Understanding this developmental process empowers learners to take a more active role in reaching higher levels of development. They can see how individual learning activities (studying vocabulary; making sentences; discussion activities, etc.) fit into the bigger picture of learning.

The DMLL also helps learners understand the process of cultural learning. It helps them see that factual information about, or individual experiences with, foreign communities (i-1) represent an important starting point, but must be joined with a more contextual understanding of cultural difference; for example, behavioral expectations and knowledge of etiquette (i-2). The DMLL also helps learners see that in the end, culture cannot be reduced to a set of rules; it is a complex whole (i-3) and must be understood on its own terms, from an insider's perspective. This, in turn, acts as a starting point for further cultural exploration, and an understanding of more abstract elements of the intercultural experiences (i-4). Understanding this progression of simpler to more sophisticated cultural understanding can help learners get the most out of the intercultural experiences, and move toward a deeper understanding of cultural difference.

**A roadmap for educators** The DMLL is also intended to help educators by providing an integrated framework for planning pedagogy. Language learning activities can be analyzed from the perspective of what level of learning they focus on. An accuracy-based activity in which learners are practicing grammatical structures by writing sample sentences involves i-2 processing—they are mapping different elements of knowledge together (e.g., vocabulary items are being combined with knowledge of sentence structure). Fluency practice, on the other hand, such as a discussion activity, draws more on i-3 processing—using language holistically and focusing on overall meaning, rather than the details of language structure. A reflection activity in which students consider what study activities work best for them activates the kind of meta-level processing found at i-4. Additionally, activities can be designed so as to bridge one level to the next—such as having learners use new vocabulary items (i-1) in a sentence (i-2). Higher level functioning can be scaffolded with support at lower levels, as when learners are given useful words (i-1) or language structures (i-2) to be used during a discussion activity (i-3).

In a similar way, cultural learning activities can be planned based on the DMLL's hierarchy of understanding. The DMLL lends itself to activities that focus on understanding different cultural perspectives, and to making sense of one's own intercultural experiences. The DMLL helps learners go beyond stereotypical notions of cultural difference. It emphasizes the idea that simplistic explanations for cultural difference are only one step on an increasingly complex journey to cultural learning. It provides clear goals for cultural learning—they ability to look at a situation from different cultural perspectives (i-3), an awareness of one's own cultural perspective (i-3) and an overall understanding of the culture learning process (i-4). The DMLL can also be used to have learners reflect on their intercultural experiences more broadly—as a process of learning how things are done in a new environment, or learning how to interpret behavior which might seem foreign.

## 2.10 An Emerging Consensus

The perspective on offer here joins a rich body of scholarly work focused on bridging the language–culture learning gap (Andersen et al. 2006; Bianco et al. 1999; Byram 1997; Byram et al. 2017; Corbett 2003; Crozet and Liddicoat 1999; Damen 1987; Diaz 2012; Kramsch 2015; Liddicoat and Scarino 2013; Moran 2001; Risager 2015; Tsai and Houghton 2010; Yamada 2010). As will be explored in Chap. 7, a consensus has increasingly emerged for the importance of intercultural competence in the context of language education (Duranti 2001; Fantini 1997; Kramsch 2015, 2002, 1993; Risager 2006; Wolf 2015). There has been an increase in theorizing about intercultural approaches to language education and pedagogy (Corbett 2003; Crozet and Liddicoat 1999; Liddicoat 2005; Liddicoat and Scarino 2013; Moran 2001; Risager 2007), and an emphasis on the qualities that global citizens might be expected to develop such as intercultural communicative competence (Byram 1997; Byram et al. 2001; Byram and Parmenter 2012), intercultural citizenship (Byram 2008; Cates 1999; Harrison 1999; Higgings and Tanaka 1999), or some form of critical cultural awareness (Diaz 2013; Houghton et al. 2013; Tsai and Houghton 2010). There have been increasing attempts to join an intercultural perspective with nuts-and-bolts questions of foreign language pedagogy (McConachy 2018).

Extensive scholarship does not mean, however, that there is a consensus about how to integrate intercultural learning objectives into the everyday practice of the classroom. Traditional notions of language learning as separate from culture are still common. Diaz (2012, 2013) remarks that a proliferation of theorizing has created a large gap between theory and practice in language and culture education. As Diaz (2013) explains:

> While theoretical models of language and culture teaching have been made ever more sophisticated over the last few decades, implementation of these models still fails to address the imperfect nature and limitations of the everyday language classroom. … The stage is set for a clarion call. (xvii–xviii)

Diaz goes on to describe some of the "inconvenient truths" that confront language and culture pedagogy. She points out that despite wide acceptance of the notion of intercultural competence as a pedagogical goal, it remains largely an uncontested concept with few alternative models. McConachy (2018) points out ways in which "intercultural competence is positioned as a separate construct that contrasts with communicative competence" (p. 4) and argues that there is a "theoretical separation" between the two—a view that reinforces the traditional dichotomy of language and culture as separate domains of learning. In addition, it may be that the importance of cultural learning in language education is emphasized primarily in the so-called WEIRD (Western, educated, industrialized, rich, and democratic) countries in the world (Henrich et al. 2010). There are many educational settings where more traditional language methodology predominates; in which grammar translation is still common; where there is a heavy emphasis on standardized testing; and where many teachers use the target language relatively little when teaching.

Despite an extensive body of scholarship, the ambitious goals of intercultural learning have not yet been reconciled with the day-to-day needs of many teachers. This work presents a deep learning perspective, and the Developmental Model of Linguaculture Learning, as a complement to existing approaches. The remainder of this chapter introduces some of the key themes that contribute to the model, and that are discussed in more depth in later chapters.

## 2.11 Language, Culture and Cognition

The DMLL is grounded in particular assumptions about the relationship between language, culture, and cognition. This work argues that language and culture are most separate at the surface level of explicit knowledge and conscious thought processes. In contrast to this, at deeper, more intuitive levels of mind, language and culture understanding are closely related. To have a *feeling* for what something means requires an intuitive sense of the social expectations and cultural nuances associated with language. This intuitive sense is a result of largely unconscious pattern-based forms of social cognition. Even individual words can be richly imbued with intuitive knowledge that is highly cultural—such as *liberté* (freedom) in French; *malu* (shame, embarrassment) in Malay; or *xiào* (filial piety) in Chinese (Goddard 2015). It is at the level of intuitive knowledge that we find most clearly a connection between language and culture. An immigrant in Germany, for example, needs to learn when to use *du* (you—informal) and when to use Sie (you—formal)—something that Germans do without thinking, and would be hard put to explain in detail. This intuitive connection between language and culture is why mastering a foreign language requires insight into the customs and values of its speakers. Understanding this connection more fully requires looking into the mental processes that make these intuitive abilities possible—the intuitive mind.

### *2.11.1 The Intuitive Mind*

Recent years have seen great progress of our understanding of the *intuitive mind*—unconscious cognitive processes that are largely inaccessible to conscious reflection and thought. Our view of this hidden realm—also referred to broadly as the *unconscious*, or the *subconscious mind*—is evolving quickly. In the past, the unconscious mind was thought to consist primarily of primitive urges and shameful desires (Brill 1995). We are now discovering that unconscious cognition is highly complex, specialized, and yet highly integrated into everyday perception. Despite its complexity, we are largely unaware of its functioning—we take it for granted because it is the mechanism that produces our everyday experience of the world.

The intuitive mind can be thought of as the perceptual autopilot of everyday life. It is involved with an enormous range of mental phenomena: perception, motivation, decision-making, moral judgments, rationality, rationalization, bias, expert intuitions, empathy, consciousness. The intuitive mind is not, to be clear, a single thing or function. It is a complex constellation of cognitive systems that regulate our relationship with our physical and social environment. Things which seem natural and commonsensical—language use, recognizing faces, picking up on social cues, reading emotion, making decisions, learning new skills—involve highly complex forms of cognition that are hidden in plain sight. Despite its importance, we are largely unaware of how it shapes our experience. It is the result of a sophisticated cognition that we barely notice at all.

### *2.11.2 Intuitive Knowledge*

The intuitive mind guides our everyday life by providing us with an intuitive sense of how the world works, how to do things, how other people think, and what's expected of us from others. It relies on *intuitive knowledge*, which we experience as the sense or feeling of familiarity, mastery, or rightness. We rely on "native" intuition in our L1 to "know" if something is grammatical or not, even if we can't explain why. Our judgments and interpretations of people and situations rely on intuitive cultural judgments—which can lead us astray in foreign settings. The cultural values we grow up with "make sense" to us while foreign ways of perceiving can seem odd or wrong. Intercultural experiences provide us with an intuitive understanding of cultural difference, and allow us to recognize previously undiscovered cultural patterns in others and within ourselves. Intuitive knowledge is developed through experience and pattern recognition—a process that can be both helped or hindered by conscious analysis and conceptual thinking. That is to say, if we don't pay enough attention to what we are practicing, we may not improve. On the other hand, if we "overthink" what we are doing, we may have trouble getting the hang of a new skill. Much of the knowledge we need to function successfully in a foreign language or cultural environment is intuitive rather than conceptual, but deep learning requires a combination of analytic and intuitive processes.

### *2.11.3 Surface Versus Deep Learning*

A focus on the hidden cognitive processes of the intuitive mind highlights the distinction between surface (conscious, analytic, explicit) and deep (intuitive, integrated, implicit) forms of knowing. (See Chaps. 7 and 8.) Surface knowledge refers to intellectual and conceptual forms of knowing, and the relatively conscious forms of thinking and analyzing that goes along with it. Traditional language pedagogy, for example, is often criticized for an overemphasis on explanations and linguistic

forms—explicit (surface) forms of knowledge. Similarly, cultural learning pedagogy is superficial when it reduces culture to a set of facts to know or etiquette rules to follow. Experience teaches us that facts and analysis takes us only so far. Language learning is most effective when it involves forms of learning that engage learners at deeper, more experiential, more personal levels of the self—deeper learning. Similarly, foreign travel and intercultural experiences are more deeply meaningful when they go beyond intellectual understanding or superficial cultural contact. This surface–deep distinction reminds us that in addition to concerning ourselves with how *much* is being learned, we need to also focus on how *deep* learning is.

### *2.11.4 The Linguaculture Classroom*

While this work situates the DMLL in relation to existing language and culture scholarship (see Chap. 7), its primary goal is not a critical analysis of different theoretical models. It also largely sidesteps important issues of educational policy—such as the need for language learning to contribute to global citizenship, or the questionable notion of the "native speaker" as a model for language learning. Instead, its core aim is to provide a unified view of language and culture learning that is grounded in an understanding of socio-cognitive processes.

How can this new perspective be put into practice? This is explored in Part III. For the moment, however, this new perspective can be described in terms of the linguaculture classroom—the idea that when a learner steps into a classroom, they are entering an experiential and intercultural learning space that focuses on deep learning. This means less focus on explanation and conceptualization, and more focus on experiential learning, emotional engagement, trial and error, community, intuitive insight, and experimentation. By way of example, pronunciation practice can be done through explanation and mechanical demonstrations of how to make one's tongue or lips move, but it can also be done in the spirit of trying out new sounds, experimenting with our mouths, and getting comfortable with our voice in a new language.

In the linguaculture classroom, learners recognize that language and culture learning is more than a subject in school. The classroom provides a safe space to experiment with new ways of thinking and communicating. Thus, the nervousness we feel giving a presentation to our classmates may be seen as preparation for the even greater stresses of using that language out in the "real world". A linguaculture classroom focuses on intuitive understanding—the deeper, more "instinctive" form of knowledge that comes from having more fully internalized the linguistic and cultural patterns we are experimenting with. A strong focus on correct answers, or an overly intellectualized approach to learning can get in the way of deep learning. In the end, a focus on linguaculture learning implies engagement at multiple levels of the self, and encourages educators to find creative ways to achieve this in their particular context.

**Beyond the odd dilemma** Going beyond the odd contradictions of language and culture pedagogy requires grappling with the split between language and culture learning. As long as we think of language learning in terms of knowledge and skills, and cultural learning in abstract terms such as awareness or criticality, we will end up stuck on the horns of a pedagogical dilemma. Moving beyond this requires a re-examination of the sort of intercultural mindset we are hoping to develop. The next chapter will do this by taking a fresh look at the thinking of pioneer interculturalist Edward T. Hall. He saw intercultural understanding as a challenging inner process of confronting the cultural programming of the unconscious mind. This is contrasted with the more transcendent view of Marshall McLuhan, another pioneer thinker of globalization. Hall's work is argued to be ahead of his time, anticipating insights currently emerging from the brain and mind sciences. Hall's ideas, updated by recent research, provide a foundation for this work's conceptualization of intercultural understanding.

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# Chapter 3
# Globalization and Deep Culture Learning


**Abstract** This chapter explores how emerging insights into cognition and mind can inform our understanding of cultural learning objectives. It focuses on contrasting visions of intercultural awareness articulated by Edward Hall and Marshall McLuhan: (1) a transcendent view, and (2) a deep culture view. The former emphasizes the development of high-level cognitive processes, such as critical cultural awareness, while the latter emphasizes a process of inner change and development that is largely intuitive. This chapter will argue that our increased understanding of unconscious cognition is providing us with new paradigms for understanding cultural learning. These are said to be consistent with the view of Edward Hall, who saw culture as deep patterns of mind that influences us in ways we are unaware of, that can be uncovered by experiencing cultural difference, and that are difficult to change.

## 3.1 Culture Learning Objectives

It's obvious that some people are more internationally minded than others. Travelers learn about the countries they visit; the food they've tried; the landmarks they've seen. Expatriates and migrants gain local knowledge of their foreign home—they learn local customs, the local language, and develop a knack for getting along and getting things done. All of this is sometimes referred to as *culture-specific* knowledge—it relates to knowing about particular cultural communities. In addition to this, however, some people seem more tolerant of cultural difference, more aware of cultural issues generally, or better able to navigate the complexities of intercultural situations. A variety of terms are used to describe this more *culture general* understanding: intercultural awareness, intercultural sensitivity, intercultural competence, intercultural intelligence. It's typically assumed that such qualities are developed over time, as we learn to understand different cultural points of view, become aware of our own cultural programming, and find ways to produce successful intercultural outcomes.

This chapter will look at how a deep learning perspective can help us conceptualize cultural learning goals. Cultural learning goals are often defined in terms that are abstract (e.g., awareness), multidimensional (e.g., competence) or broad



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(e.g., openness). Language learning goals, on the other hand, are typically talked about in terms of knowledge and skills. This chapter will argue that this dichotomy overlooks the importance of the intuitive mind. From the neurocognitive perspective, cultural understanding involves the ability to read patterns and interpret situations—it is primarily intuitive. This implies that cultural learning is grounded in pattern recognition, holistic experience and trial and error learning, rather than abstraction and intellectualized reflection. This view is supported by the observation that experienced interculturalists are often insightful about culture, even without learning about cultural concepts. Conversely, some people may study cultural concepts or theory, yet have only shallow intercultural insights.

This chapter will argue that cultural understanding can be relatively shallow (conceptual) or deep (intuitive), and that this distinction should inform pedagogy. This view draws on current research into cognition, but can be traced back more than 50 years to a pioneer of intercultural understanding—Edward Hall. His ideas developed at a time when the need for intercultural insight was just beginning to be discussed, at the dawn of our current global age. He was one of the first to see that developing intercultural understanding was of critical importance, both for individuals encountering cultural difference, and for the world at large.

## 3.2 Contrasting Views of Globalization

In the 1950s, the future was often pictured as a technological wonderland of space ships and sleek plastic furniture. We would live in glass-domed houses, go to work in flying cars, control the weather, and set off to explore distant star systems (Novak 2015). The heroes of the time were scientists and engineers, whose forward thinking would lead to a world of convenience and social progress. It was an exciting, if inaccurate, vision of the future. At the time, only a few predicted that the technological wave that would transform society was not bigger, faster machines—it was communications technology. When millions were dreaming of jet packs and space ships, only a few saw the global village to come and tried to chart a path forward.

Between 1965 and 1972, a remarkable exchange of letters took place between two such visionaries of global living—Marshall McLuhan and Edward Hall. McLuhan, a media theorist, is remembered today for coining the term *global village*, and for predicting the World Wide Web 30 years before it was invented (McLuhan 1964, 2011; McLuhan and Fiore 1968). Hall was an anthropologist and foundational thinker in the field of intercultural communication (Hall 1959, 1984, 1976, 1992). He is remembered for pioneering work in the area of unconscious culture, and concepts such as high and low context communication, and monochronic versus polychronic time (Hall 1976). Both men recognized early on that communication technology and globalized media were transforming society and the people in it. They were deeply interested in the psychological impact of increased intercultural contact and how people develop a more global mindset. In a series of 133 letters, they explored

the implications of what we now call globalization—sharing ideas, asking probing questions, and influencing each other's work (Rogers 2000).

Both McLuhan and Hall realized that globalized communication has profound, potentially transformational psychological and social consequences. They had, however, contrasting viewpoints about the psychological implications of increased intercultural contact (Rogers 2000). McLuhan had a universalistic bent and was something of a technological determinist. He felt that communication technology—such as writing systems, the printing press, and electronic media—has a profound effect on human cognitive processes, and thus on society. McLuhan believed that electronic media would lead to an evolution of the mind into a "noosphere"—a collective realm of human thought analogous to the earth's atmosphere. He saw a future world of increased unity and shared perception—albeit at the cost of decreased individualism and a danger of a Big Brother external control—as our mental worlds increasingly melded into a global shared reality (McLuhan 1964; McLuhan and Fiore 1968).

Hall, in contrast, was less deterministic about the potential for a more unified perceptual reality. He was interested in how culture shapes our thinking, communication, and values in unconscious ways. He challenged McLuhan to take cultural difference into account when contemplating the psychological impact of communication technology. Whereas McLuhan saw global consciousness largely as a by-product of technological change, Hall saw such a transformation as a highly individualized process—one that depended very much on the psychology of each person. Furthermore, he believed that humanity faces an enormous barrier to greater intercultural understanding—unconscious cultural conditioning (Hall 1959, 1976). In Hall's view, cross-cultural understanding can only happen through a difficult inner process of self-discovery, through which we gradually gain an awareness of the hidden programming of our own mind. He saw this as a profound transformation—one that required more than goodwill, a philosophy of tolerance, or superficial intercultural contact. From Hall's perspective, cultural learning is hard work.

### *3.2.1 A Global Mindset*

McLuhan and Hall's contrasting ideas provide a useful starting point to discuss the nature of intercultural understanding. McLuhan thought of communication technology as an *extension* of human perceptual processes. He described a global mindset in terms of unified perception—of reaching beyond narrow local concerns and achieving a more expanded reality through communication with physically distant others. Hall also spoke of technology in terms of extensions (Hall 1976). His focus, however, was on the psychology of attachment—how our ego boundaries expand together with our technological reach. He described as *extension transference* the human tendency to identify with the technologies and systems that we create. For example, I experience my automobile as an extension of the self, and if someone dents my car I react as though I myself have been injured. Similarly, a threat to the ideas, systems, ceremonies, or ideologies that I hold dear is experienced as a threat to the self.

Hall felt that extended interaction with cultural others would bring us into contact with different patterns of attachment, which would challenge our own sense of centrality. When foreign patterns of behavior and communication are at odds with our sense of self, it is experienced as an imposition and a threat. Unfortunately, because this psychological dynamic happens largely at the level of the unconscious mind, it is highly resistant to change. This represents an important point of contrast between McLuhan and Hall. McLuhan conceptualized intercultural understanding as an extending of mind—an expansive process. Hall saw it largely as an inner struggle that required that we let go of self-centered thinking. This allows us to slowly free ourselves from the constraints of unconscious attachments. In Hall's view, intercultural contact contains within it the potential for a global mindset, but it also sets us up for psychic conflict with our own ethnocentrism.

Hall's and McLuhan's visions emphasize different elements of intercultural experience. McLuhan's view is more optimistic and inspiring. It assumes that as we have more opportunities to see and hear people and places that are foreign or far away, the more we expand our perceptual field and create shared understanding. Hall was less convinced of the human capacity for a perceptual change. He assumed that human psychology is parochial by nature, and largely blind to its own perceptual limitations. He felt that increased intercultural contact, even when coupled with goodwill and an intellectual commitment to diversity, is not enough to assure mutual understanding. In Hall's view, we don't so much transcend culture as unearth perceptual limitations and psychological barriers within ourselves.

### *3.2.2 Update on Hall and McLuhan*

Nearly a half century after their exchange, the views of both of these visionary thinkers have proved prescient. Communication technology has, as McLuhan predicted, ushered in an era of borderless virtual communities and unprecedented interconnectedness. Globalization often is a unifying force, and we now live in a more "flat" world with an increasingly interconnected economy (Friedman 2005). This contributes to what social critic Jeremy Rifkin (2009) describes as an expanding circle of empathy, in which we concern ourselves with the well-being of an ever-wider portion of humanity. There is also evidence that increasingly complex social organization is contributing to a long-term trend of decreased violence worldwide (Pinker 2011). For increasing numbers of people, multiculturalism and greater acceptance of diversity are the norm.

At the same time, a more globalized community does not always create mutual understanding. The early years of the twenty-first century have been plagued by resurgent nativism, the politics of intolerance, terrorism and social instability. These trends hint that for hundreds of millions—perhaps billions—of people, increased intercultural understanding and collaboration is not the primary by-product of McLuhan's

global village. McLuhan saw the danger of parochial thinking found in a global village. It was Hall, however, who described in detail how our values, cultural identities, and worldview are deeply rooted in the unconscious mind.

The idea that globalization would provoke conflict rooted in unconscious forms of social identity has also been articulated by Samuel Huntington (1996), who argued that in the twenty-first century the primary axis of conflict in our globalized world would continue to be cultural, and involve a "clash of civilizations." Hall would likely be sympathetic to this view, and see current trends as evidence that the currents of cross-cultural misunderstanding run deep. As Hall (1976) put it, "culturally based paradigms put obstacles in the path to understanding because culture equips each of us with built-in blinders, hidden and unstated assumptions that control our thoughts and block the unraveling of cultural processes" (p. 220). Hall compared our cultural conditioning to the invisible currents of the jet stream—powerfully shaping our experience of the world. Such forces are subtle yet strong, important yet unnoticed—they are not easy to map, and even more difficult to change.

### *3.2.3 Echoes of McLuhan*

Despite Hall's foundational influence, it has been, arguably, McLuhan's more optimistic view of intercultural understanding that has come to predominate the field of intercultural education. There is a long-running tendency to describe cultural learning objectives in terms of transcendent ideals—a higher form of perception or identity to strive for. Back in 1977, for example, Peter Adler (1977) described what he called the "multicultural man", saying that "we may now be on the threshold of a new kind of person, a person who is socially and psychologically a product of the interweaving of culture in the twentieth century" (p. 24). This would be a person whose view of the world "profoundly transcends" that of a local culture, who would seek the universal in diversity, and maintain "indefinite boundaries of the self" that are constantly in flux, and eventually reaching a "new kind of wholeness" and a "higher level of integration." Adler believed that this multicultural person has been enabled by a "transitional period of history" that demands a new form of "psychocultural self-process" leading to a more highly evolved multicultural self. Adler places the multicultural person on the vanguard of a shift to a more utopian global community.

In the years since Adler described his idealized vision, a variety of terms have been suggested to describe the desired outcomes of intercultural learning. These often echo the transcendence found in McLuhan's thinking. One term that has been influential is intercultural *awareness* (Gaston 1984; Hanvey 1979; Hofstede et al. 2010; Houghton et al. 2013; Ingulsrud et al. 2002; Paige 1993; Tomalin and Stempleski 1993; Tomlinson 2000; Valdes 1986). Increased awareness is described in terms of an advanced way of knowing or perceiving. Typical of this is Gaston (1984) definition of cultural awareness as "the recognition that culture affects perception and that culture influences values, attitudes and behavior." Gaston describes the process of gaining awareness as including a "growing consciousness of our own cultural group"

leading eventually to a state in which we "transcend our culture and see ourselves as a product of culture, but no longer a prisoner of culture" (p. 2–4). Such a characterization echoes McLuhan's sense of raised consciousness; one that emphasizes going beyond less enlightened ways of perceiving.

Intercultural learning goals are not always discussed in such transcendent terms. They do, however, often focus on mental states that are thought to represent higher order forms of knowing, perceiving, and identifying. Terms used include *intercultural awareness*, but also *intercultural sensitivity* (Bennett 1993, 1968; Olson and Kroeger 2001), *critical awareness* (Diaz 2013; Houghton et al. 2013; Ingulsrud et al. 2002), *interculturality, multiculturality* and *transculturality* (Cots and Llurda 2010; Tsai 2010; Tsai and Houghton 2010; Welsch 1999), *criticality* (Yamada 2010), and *becoming intercultural* (Kim 2001). Frequently, there is an emphasis on gaining an ability to relativize one's experiences, respect difference, and appreciate the validity of other cultural worldviews. Broadly speaking, this process is seen as representing a broader, or more inclusive view of the world—one that allows for a more globalized identity. Even terminology that is more outcome oriented such as *intercultural communicative competence* (Alptekin 2002; Byram 1997; Celce-Murcia et al. 1993; Byram et al. 2001, 2002) has this sort of higher order thinking at its core. Byram (1997), for example, describes a "perspective shift" as a key factor in making progress toward intercultural competence (p. 108). He sees an intercultural competent speaker as someone who acts from a position of *informed understanding*—one that is supported by attitudinal dimensions such as *openness*, *respect*, *curiosity,* and *tolerance*. These qualities represent high ideals indeed.

### *3.2.4 Hall and Deep Learning*

Hall (1976) also believed that cultural awareness represented a higher order perceiving. But he felt that before we can develop a more expanded worldview, we have to go through a difficult process of change and adjustment in the realm of the unconscious mind—it's fundamentally an inner process. He described it as an error to think that one can transcend one's own culture, and believed that culture binds us in an unconscious form of identification that is difficult to gain awareness of. Breaking free of these hidden bonds—what he called the "greatest separation feat of all"—was, he believed, "the single most important task facing mankind today" (p. 222). He referred to this as a difficult journey in which "one manages to free oneself from the grip of unconscious culture" (p. 240). Hall was less interested in describing ideal outcomes of intercultural understanding, and more interested in the difficult process of self-discovery that leads to it.

Current scholarship does incorporate some ideas embodied by Hall's work. The idea that culture influences us at deep levels of the self is widely accepted. It's also understood that gaining intercultural awareness, or achieving a new cultural perspective, involves inner change and shifts in worldviews. Byram (1997), for example, refers to "deep learning" that is not easily measured (p. 108), and Bennett (1993)

describes stages of intercultural sensitivity in terms of shifting from ethnocentrism to ethnorelativism. Despite this, intercultural learning pedagogy has relatively little to say about the unconscious mind. We know, for example, that culture has a significant impact on cognitive styles, forms of identity, and emotion regulation (Markus and Kitayama 1991; Han and Northoff 2008), yet talk relatively little about the psychological challenges of adjusting such deep elements of self. This is despite increased recognition within psychology of how demanding intercultural experiences can be (Matsumoto et al. 2006; Ward et al. 2001). It has only been recently that Hall's focus on the unconscious mind has been garnering more attention (Shaules 2014, 2007).

## 3.3 A Neurocognitive Perspective

We have a much better understanding of mental processes than was available when Hall was speculating about hidden cultural patterns. These recent insights indicate that Hall was largely correct in his view of culture and the unconscious mind, and the challenges of modifying these fundamental elements of self. While such a view is, perhaps, less inspirational than visions of higher levels of consciousness, it has the benefit of resting on a solid foundation of empirical understanding. Ultimately, what emerges from a neurocognitive perspective is respect for the difficulty of modifying our cultural programming. On the other hand, when it goes well, intercultural learning can have a deep, even transformative impact on our perceptions and our sense of self. We truly *become* intercultural.

Neurocognitive insights into intercultural understanding can be divided into three broad areas: (1) the roots of social cognition, (2) the cognitive architecture of judgment and bias, and (3) the challenges of embodied understanding. The first area relates to how human evolutionary biology has shaped our cognitive systems and our way of experiencing the world. The second area relates to our built-in biases—our cognitive systems don't simply report the facts, they make approximate guesses about the world around us. The third area relates to our ability to empathize with others and modify our worldview. Taken together, recent insights remind us that intercultural understanding and insight is not a single thing—it relates to complex cognitive processes that we can never go *beyond*, because they form the very architecture of our perception and self.

## 3.4 The Roots of Social Cognition

While it's appealing to imagine a future of global harmony, we can learn about the psychology of intercultural understanding by looking at our evolutionary past. For better or worse, our mind functions the way it does because of evolutionary pressures over a span of millions of years. Evolutionary biology teaches us that our body and mind have been shaped by the random yet constrained process of evolution, and

has succeeded in ensuring human survival. This cannot empirically be described as either good or bad. We may find tendencies that seem heartwarming—such as the human capacity for empathy and altruism. Others will seem destructive—such as violence, ethnocentrism, and bias. In the end, however, it is the sum total of all of these attributes that have ensured our survival up to now. A neurocognitive perspective sees seemingly negative elements as part of human nature. The fact that such traits are natural doesn't mean, of course, that they are desirable. A neurocognitive approach seeks to understand human nature as it is, to better harness elements of self that lead to the outcomes we seek.

A primary insight that has emerged from this evolutionary perspective is that humans are cultural by nature. Normal human development involves a complex interaction between genes and the environment, both at the micro-level of the individual and the macro-level of populations (Chiao 2009). Culture shapes our human genome by selecting genetic variation that provides a survival advantage. Examples include selected traits that encourage successful in-group collaboration, or cultural communities that herd cattle evolving the ability to better digest cow's milk (Barkow et al. 1992; Richerson and Boyd 2005). Cultural patterns are also an indispensable part of individual human development. When we are young, cognitive systems are sensitive to sociocultural patterns in the same way that they are sensitive to linguistic patterns. Just as our native language becomes an integral part of our ability to communicate, the cultural patterns of our environment shape our cognitive processes including cognitive styles, sense of identity and self, and our experience of emotion (Ansari 2012; Han and Northoff 2008; Han et al. 2011; Kim and Sasaki 2014). And while the idea that social interaction affects cognitive development is not new (Vygotsky 1978), we are now better able to understand the culturally specific and complex nature of that influence (Han and Northoff 2008).

## 3.5 The Architecture of Judgment (Bias)

One area of cognitive function of concern to intercultural educators is varying forms of bias such as ethnocentrism, stereotyping, and negative attitudes such as prejudice. The good news is that research in this area is providing us with important insights for our work. There have been any number of popular books which discuss the structural biases to be found in our cognitive architecture. Perhaps the best known is *Thinking Fast and Slow*, by Nobel Prize winning psychologist Daniel Kahneman (2011), but there are many others as well (Ariely 2009; Banaji and Greenwald 2013; Haidt 2012; Iyengar 2010; Mlodinow 2012; Wilson 2002). This body of work, however, creates a challenge for educators. While intercultural educators may have a few particular biases that we are interested in—ethnocentrism and stereotyping, for example—we are discovering biases everywhere we look. One review found no fewer than 21 biases related to decision making alone (Caputo 2013). One crowd-sourced list identified 180 cognitive biases, which can be divided into 20 major categories (Wikipedia). Those categories relate to four different challenges of perception and

cognition—(1) a limited ability to remember, (2) a need to filter information and identify what's important, (3) the need to make judgments or interpretations based on limited information, (4) and the need to act quickly in the face of so much uncertainty.

As this list makes apparent, what we are calling "biases" are, in fact, more simply the cognitive architecture of survival. Our cognitive processes evolved to make effective judgments about our environment in the face of novelty and information overload, uncertainty about how to interpret our experiences, the need for quick responses in the face of possible danger, and having to rely on imperfect recall of past experiences. Using the word bias implies that there is something faulty about our cognitive processes, because they are not providing accurate results. We call stereotyping a bias because it gives an oversimplified interpretation to a complex phenomenon—saying that "Americans are rich" may be true in some respects, but it is a not a very subtle representation of reality. From the perspective of evolutionary biology, however, stereotyping is very useful. It allows us to make quick judgments about how to proceed, without having to go through a cumbersome analytic process. That patch of yellow in the grass might be a lion, and our ancestors that acted quickly on that guess are the ones who survived.

## 3.6 Embodied Understanding

A neurocognitive perspective reminds us of the deeply embodied nature of intercultural understanding. When we define cultural learning goals in terms of higher, or more transcendent forms of cognition, this gets downplayed. For example, Milton Bennett describes the process of intercultural awareness in terms of perception and empathy—the ability to look at a situation from the point of view of another. Bennett talks about this in terms of *intercultural sensitivity*, which he defines as the ability to construct a reality that is capable of accommodating cultural difference (Bennett 1993). Yet Bennett treats the ability to empathize largely as a phenomenon of interpretation and meta-awareness, and does not, by and large, root his ideas in an embodied view of neurocognitive processes. Sparrow (2000) has criticized this conceptualization of intercultural sensitivity as a "Cartesian concept of a mind, detached from experience" (p. 177). The current work seeks to enrich such conceptualizations with a more embodied view of cognitive processes.

Recently, however, cognitive psychologists have been exploring the nature of empathy in new ways. We are learning that while empathy—the sharing and understanding of states of others—is a universal element of human psychology, it is not automatic (Zaki 2014). Empathy is a complex phenomenon that relies on multiple cognitive systems, and can be short-circuited by discomfort or feelings of threat. Our empathy response is "motivated"—it is something that can be developed intentionally, but it can also be inhibited. Empathy is inhibited if it makes us uncomfortable (we avoid interacting with someone who is disabled), results in a loss of efficiency (it gets in the way of getting things done), or results in a lack of affiliation (we don't feel

a sense of solidarity) with the other. This view of empathy is highly embodied—it recognizes that affective experience is critical to empathy. The ability to understand cultural others is as much in our guts as in our head.

Positive feelings are not, however, a guarantee that we will be able to empathize. Indeed, Zaki argues that developing empathy depends importantly on contextual factors, including whether we value empathy. In addition, empathizing requires that we frame an experience from an alternative point of view, which can be difficult in cross-cultural settings. Zaki (2014) contrasts *experience sharing*, which he describes as the ability to take on the affective and sensory states of others, with *mentalizing*, which he characterizes as the ability to draw inferences about the intentions, beliefs, and emotions of others. The former, presumably, is more automatic and visceral, while the latter requires the ability to intuit (draw implicit inferences) about what the other is thinking, feeling, or intending. Cross-cultural settings provide ample opportunities for both forms of empathy. Even when we share little in terms of cultural background, we still are moved when we see someone grieving the loss of a loved one, or the joyful play of children. Our visceral sympathetic response can be powerful and deeply moving. It can break down barriers of mistrust and ignorance, and unite us in shared concern for others—as when helping in a war zone or attempting to bring aid to disaster victims.

As a deep culture perspective reminds us, however, and as Zaki's model explicates, our "instinctive" ability to share in the experience of others is neither automatic nor guaranteed. Indeed, there can be powerful barriers that *prevent* us from doing so. Zaki describes one critical precursor of empathic processes as *mind perception*, the ability to detect the internal mental states of another. This is sometimes referred to more broadly as *theory of mind*, an ability that develops as children learn to distinguish their mental world from that of others (Shahaeian et al. 2014). Mind perception hinges on our defining others as people or non-people. We don't expect rocks or clouds to have minds, but we expect a bank teller or barista to (Epley and Waytz 2010). When we dehumanize others—as in wartime, or the committing of cruel acts—mind perception is minimized. We fail to recognize that the other has internal states like our own, and thus don't extend empathy to them. This is precisely what is difficult in cross-cultural settings. In line with this, neuroimaging evidence supports the idea that racial bias can influence empathy towards others' pain states, and that this can have real-world effects (Han 2015).

Even in the best of circumstances, cross-cultural empathy involves a form of mentalizing that requires a great deal of intercultural experience. In order to intuit the intentions of cultural others, we must gain the ability to shift perceptual frames of reference. This ability, which is at the center of Bennett's view of intercultural sensitivity, involves a perceptual entering into of another cultural worldview. This is increasingly studied in terms of the complex cognitive processes involved (Young 2011), including the ability of bicultural individuals to activate different bodies of cultural knowledge, and the tendency of bilingual biculturals to unconsciously shift frames of reference when changing languages (Luna et al. 2008). Of note to language educators, such research shows that bilinguals who learned a foreign language in the classroom do not shift cultural frames of reference in the same way as those who

grew up biculturally. This is consistent with the idea that deep forms of empathy and intercultural understanding require lived experience and an embodied understanding of complex cultural patterns. This is more demanding than a philosophical commitment to diversity, or an intellectual understanding of intercultural concepts.

## 3.7 A Deep Culture Approach

This chapter has argued that Edward Hall's foundational insights about intercultural understanding were ahead of his time. This work builds on Hall's vision, and proposes a *deep culture* approach to understanding cultural learning objectives. In this view, intercultural understanding is not a single cognitive ability, or higher level of perceiving, but rather a complex phenomenon that involves deeply embodied elements of mind and self. That is to say, we can never fully go *beyond* our cultural programming because it is built into the perceptual architecture of our mind. We can, however, seek to understand how our mind works, and how culture influences our perceptions, emotions, and identity. We can learn about our built-in biases, and how they can trip us up. We can explore the complexity of intercultural empathy based on an empirical, not ideological, understanding of the mind.

A deep culture approach has important pedagogical implications. It assumes that intercultural understanding is fundamentally difficult—the cultural elements of self are not easy to modify. In addition, things that are commonly thought of as undesirable from the intercultural perspective—ethnocentrism, bias, stereotypes, negative judgments—are natural. That is to say, they are a normal part of mental function and a result of our evolutionary history. That doesn't mean they are desirable, of course. A deep culture approach assumes that by understanding our own minds, we will be better able to achieve the intercultural outcomes we seek.

A deep culture perspective also suggests that an understanding of unconscious elements of self is important for intercultural pedagogy. The next chapter will focus on dual-processing models of cognition—which contrasts largely unconscious, intuitive forms of mental processing, with more conscious, conceptual forms. It will argue that from the neurocognitive perspective, cultural learning is largely intuitive, rather than conceptual. That is to say, it resembles Hall's notion of deep inner change, more than McLuhan's more transcendent thinking. Chapter 5 will then explore the deeper learning processes by which our unconscious mind develops intuitive mastery and knowledge.

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# Chapter 4
# The Intuitive Mind


**Abstract** This chapter argues that recent insights into the intuitive mind can help us understand the deeper processes of language and culture learning. It gives an overview of dual-processing models of cognition, which describe the contrasting processes of the conscious and unconscious mind. It examines the role that the intuitive mind plays in navigating our everyday lives, and distinguishes between contrasting forms of knowing and learning: *surface* (explicit, conscious, conceptual) and *deep* (implicit, tacit, intuitive). Gaining intuitive knowledge is said to be a key goal of both language and culture learning. Gaining intuitive knowledge is said to be *deep*, *complex,* and *intense*. It requires the embodiment of complex patterns, a process that is experienced in intense, often challenging, ways. This chapter reviews ideas related to intuitive knowledge in intercultural education, and lays the groundwork for exploring the notion of deep learning in the next chapter.

## 4.1 Two Forms of Knowing

Mastering a foreign language requires more than intellectual understanding. More purely academic subjects, such as science or history, are more primarily concerned with facts and conceptual understanding. Foreign language fluency, on the other hand, requires a deeply involving learning process. What may start as a purely intellectual exercise—the memorization of words and the study of grammatical rules—is transformed and internalized into something more personal. Ideally, the new language becomes second nature to us—a creative medium through which we express our thoughts, feelings, and identity. When internalized in this way, language learning is no longer an academic subject—it becomes a part of the self. This is psychologically demanding. To master a new language, we must live through an extended period of ignorance and awkwardness, until hopefully, we can simply be ourselves in the new language.

Similarly, deeper forms of cultural learning require more than intellectual knowledge. There's a big difference between factual knowledge *about culture* and the understanding we gain through lived intercultural experiences. A magazine article about Senegal does not provide a deep understanding of Senegalese culture, the ability



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to speak Wolof, or the ability to adapt to life in Dakar. Deeper cultural understanding involves making sense of cultural difference, understanding our own cultural programming, overcoming critical and ethnocentric judgments, learning to look at situations in a new way, and a willingness to question one's own values and cultural assumptions. At very deep levels of adaptation, people report that they learn to switch between different cultural worldviews, and may even become cultural chameleons (Shaules 2007). This sort of development and inner change can be stressful—we may experience culture shock abroad, or feel frustrated with the "unreasonable" behavior of cultural others. We may develop a sense of shifting between different cultural perspectives as we become increasingly multicultural. Such deep learning does not come from a book.

Educators are familiar with these contrasting forms of knowing. They recognize that intellectual knowledge can be quite separate from deeper forms of understanding that we apply in the real world. This is true for both language and culture. Correct answers on a vocabulary quiz often don't equate to the ability to use words or expressions in real life. Learners may have extensive knowledge of grammatical forms yet lack fluency. Conversely, they may have picked up the ability to communicate with fluency, without knowing much grammatical terminology. And so it is with cultural knowledge as well. Someone may have extensive intellectual knowledge about a country or region, and yet still be biased, narrow-minded, and culturally insensitive. Some expatriates may be experts on the hot spots in New Delhi or Lagos, yet still, look down on "the locals". Conversely, some may have a highly intercultural outlook and be deeply insightful about cultural difference, all without ever having studied intercultural theory.

This chapter will argue that language and culture educators should distinguish between two contrasting forms of knowing and learning: *surface* (explicit, conscious, conceptual) and *deep* (implicit, tacit, intuitive). Surface learning relates to *explicit knowledge*—that which is semantic and verbal; we can manipulate it consciously in our mind, while deep learning is related to *implicit knowledge* that is tacit and intuitive (Poppel and Bao 2011). These differing forms of knowledge are a product of two contrasting constellations of cognitive function: (1) the more conscious, analytic processes of the *attentive mind*, and (2) the less conscious functioning of the *intuitive mind*. While we all have a commonsense understanding of this difference, an understanding of the cognitive processes involved is argued to be important for language and culture educators. Despite its importance, we often take intuitive abilities for granted, and think about learning primarily in terms of intellectual knowledge and skill practice.

A major theme of this work is that at deeper, more intuitive levels of cognition, language, and culture are closely related. This implies that an integrated approach to language and culture learning should emphasize deep learning—the process by which we gain these more intuitive forms of knowing and mastery. The DMLL provides a roadmap for understanding this process. This sort of learning is *deep*, *complex,* and *intense*. It involves the integration of *complex* patterns of knowledge, not just individual facts. That process occurs *deep* in the intuitive part of our mind, which allows for the development of a new set of linguistic and cultural intuitions.

When we attempt to modify these deeper processes, we discover the highly psychological—*intense*—nature of both language and culture learning. To gain insight into this process, let's take a closer look at the attentive and intuitive mind.

## 4.2 The Intuitive Mind

Different forms of knowing are associated with contrasting types of cognitive processing (Han and Poppel 2011). We know this because of recent advances in our understanding of the neurocognitive processes of the mind (Hassin et al. 2007; Sporns 2013). Research in cognitive neuroscience has led to a "dual process" understanding of cognition (Evans and Frankish 2009; Evans 2010; Sherman et al. 2014). This refers to the distinction between: (1) more conscious mental processes involved with focused *attention*, explicit *knowledge*, critical *analysis*, and conscious *imagining*, and (2) unconscious processes that are more *pattern based* and *intuitive*. There is, to be sure, no clear line between the two. For the most part, in fact, these two forms of processing work seamlessly together, such that we don't even notice any distinctions. They are also interrelated—we do, after all, have intuitions about intellectual knowledge, and some ability to conceptualize and explain our intuitions. Despite these caveats, there are important distinctions to be made between these contrasting forms of cognition.

More conscious processes are engaged when we hold a thought in our head, "think through" a problem, imagine alternative outcomes, or analyze something conceptually (Kahneman 2011). In everyday life, we generally refer to this simply as "thinking", "conscious thought", "concentrating on something". More specifically, we may describe it as analyzing, imagining, focusing on, paying attention to, or working things out in our heads. These functions are also sometimes referred to collectively as the conscious mind, which has traditionally been contrasted with the unconscious, or subconscious, mind (Brill 1995). Shaules refers to this set of more conscious capacities as the *attentive mind* (2014). This terminology emphasizes intentionality and focused attention—the sense that we can choose to think about or learn particular things.

Our capacity for more conscious forms of cognition is limited. We can only pay attention for so long, and these capacities are diminished by mental exertion or physical fatigue (Kahneman 2011). This is why taking a test can be exhausting and why it's hard to study when we are tired. The attentive mind is also associated with executive function, the willful self-control we exercise consciously. It also includes the sense that we are an observer of our own mental processes—we can "see" images or ideas on a mental canvas, or experience a thought (Chocolate!) popping into our mind. By and large, the more conscious processes of the attentive mind are what we typically think of when referring to mind, thought, cogitation, and cognition. The evolutionary commonality to such cognition is its usefulness in focusing our attention on novel situations. We have survived as a species because of our capacity to attentively think through new problems, and plan solutions.

Deeper, less conscious forms of cognition are responsible for abilities that are complex, yet feel simple to us, such as vision, recognizing faces, processing language, habitual behaviors, or reading social cues (Hassin et al. 2007; Kihlstrom 1987; Lieberman 2007; Mlodinow 2012; Wilson 2002). This constellation of cognitive function is referred to variously as: the *adaptive unconscious* (Wilson 2002), the *cognitive unconscious* (Kihlstrom 1987), the *intuitive mind* (Evans and Frankish 2009; Evans 2010; Shaules 2014), the *new unconscious* (Hassin et al. 2007), the *X-system* (Lieberman 2007), or *fast thinking* (Kahneman 2011). The plethora of terminology reflects the newness of this field of study, as well as the complexity of the phenomena being studied. Specialists come from different backgrounds, and may focus on different elements of cognition or experience. It would be an overstatement to say that unconscious cognition is clearly understood, even by specialists.

Regardless of these limitations, there is a wide agreement among researchers about key elements of unconscious cognition. It is more powerful, more complex, and less under our control, than previously imagined. Wilson (2002) compares the intuitive mind to the autopilot of a modern jetliner, one that is able to fly without the input of the conscious pilot. Evans (2010) remarks that our attentive mind thinks it's in control, while in fact it's more accurate to say that "we (conscious beings) make up stories to maintain the illusion that we are the chief executive that is really in control" (p. 6). Similarly, Haidt (2012) refers to the limits of conscious control with a metaphor of an elephant as the intuitive mind, with conscious reasoning as the rider whose job is to serve the elephant. This work borrows terminology from Evans, who refers to this deeper processing as the *intuitive mind*. This term captures the way that we often experience these deeper cognitive processes—as a form of knowing that is experienced vaguely yet powerfully.

When everything is running smoothly, we have no need to pay attention to the many functions the intuitive mind is responsible for. We don't calculate consciously how to walk, nor think about grammar when speaking our L1, nor notice the cognitive processes that allow us to recognize the faces of our friends. The importance of unconscious cognition is reflected, ironically, in our obliviousness to it. To be clear, the intuitive mind is not just a mental autopilot that serves the whims of our conscious mind. It is powerful in its own right, and influences us in many ways—it provides us with our sense of what we want, what things mean, what feels right, how things work, or what is normal (Vedantam 2010). Unconscious cognition has its own independent mandate—to keep us safe, to socialize successfully, to reproduce, to avoid danger, to seek out reward, to learn useful new skills, and so on. The intuitive mind is also of crucial importance in motivation—we feel driven to do certain things and to avoid others (Campese et al. 2016; Elliot and Covington 2001; Simpson and Balsam 2016).

A basic understanding of the intuitive mind is increasingly seen as critical for educators. This can be seen in the emerging field of educational neuroscience, which is linking our emerging understanding of brain and cognition to questions of pedagogy and learning, with particular attention paid to areas such as reading, attention, numerical cognition, and memory (Ansari 2014; Brookman 2016). This is encouraging a more "brain-friendly" approach to education (Medina 2008), and a better understanding of the psychology of learning. It also reminds us that learning doesn't happen

solely in some independent mental space. It is a complex experience that is grounded in the physical and emotional processes of the whole body. For its part, this work will argue that cultural understanding is primarily a form of intuitive knowledge—something gained through a process of experiential learning, pattern recognition, and intuitive insights. The idea that intercultural understanding is primarily intuitive contrasts with the notion that it relates primarily to higher order forms of cognition and reflective understanding.

## 4.3 Intuitive Knowledge

An understanding of the intuitive mind provides insight into the difference between explicit knowledge and intuitive (implicit) knowledge (Poppel and Bao 2011). In everyday life, we recognize that we know certain things that can be recalled or explained at will, or that we have understood through some mental process of analysis or reflection. We also, however, have nonrational knowledge—we "just know" how something is without conscious cogitation. Sometimes, we call this knowledge intuition, as when we say: *To be a good parent you need to follow your intuitions,* or *After years of experience, she had learned to trust her intuition.* Such knowledge is experienced as vague sensations, which we may describe with words such as *gut feeling,* or having a *sense* for something. Intuitive knowledge can be powerful yet hard to explain, such as the feeling of rightness we experience when we fall in love at first sight; it can be very subtle, as when we pick up on our boss's bad mood; it can relate to skills, as when we have a feeling for working with wood; it can be abstract, as when we describe an idea or solution as elegant. We typically think of explicit knowledge in terms of formal learning, and implicit knowledge in terms of doing, feeling or sensing.

Traditionally, inquiry into forms of knowledge (epistemology) has been primarily the domain of philosophers. Benedict de Spinoza, for example, believed that humans had three sources of knowledge, (1) imagination, (2) rational knowledge, and (3) intuitive knowledge (Dockstader 2018). He considered intuitive knowledge—which involved direct knowing of eternal truths—to be superior to the others. In this view, intuitive knowledge is experienced directly, without a need for rational thought and analysis. Such nonrational knowledge has long been associated with divinity and higher truths. In the Buddhist tradition, enlightenment is considered a direct form of knowledge that is impossible to articulate or explain rationally. In the Christian tradition, believers experience God's grace directly, or may receive divine inspiration. Intuitive understanding has also been emphasized in the arts, with importance placed on forms of knowing—such as inspiration, or one's muse—that is fundamentally intuitive and not rational. On a more mundane level, we may refer to intuitive knowledge as common sense, or noticing. Often, we take intuitive knowledge so much for granted that we may not be aware of it at all.

In recent years, cognitive neuroscience has been shedding light on the processes involved with our intuitive experience of the world. This field of inquiry is expanding

at a breathtaking pace. It is touching upon a wide range of cognitive abilities in areas as diverse as mental health (Brandao 2006), religious experience (Boyer 2001), decision-making (Iyengar 2010; Klein 1998; Vedantam 2010), psychological change (Wilson 2011), moral intuitions (Boehm 2012), the nature of rationality (Damasio 1994; Lakoff and Johnson 1999; Stanovich 2011), emotion (Barrett 2017), empathy (Keysers 2011; Zaki 2014), consciousness (Damasio 1999, 2010), unconscious bias (Ariely 2009; Banaji and Greenwald 2013), the power of intuitive understanding (Gigerenzer 2007; Gladwell 2005), learning and education (Medina 2008; Sousa 2010; Torff 2001), linguistic meaning (Bergen 2012), cultural difference in cognition (Chiao 2009; Nisbett 2003), and intercultural understanding (Shaules 2014). It is grounded in a more detailed understanding of conscious and unconscious cognition (Hassin et al. 2007; Kahneman 2011; Sherman et al. 2014), the structures of the brain, and the neural networks that underpin cognition (Sporns 2013). Taken as a whole, such work teaches us that our everyday intuitive sense of the world is a result of highly complex cognitive processes that operate largely out of reach of conscious cognition. We are so unaware of these hidden elements of self—our motivations, actions, impressions, decision-making—that we are truly "strangers to ourselves" (Wilson 2002).

This body of work is allowing us to go beyond the idea that intuitive knowledge comes from some nebulous creative or other-worldly realm. Hodgkinson et al. (2008) argues that the notion of intuition forms an important bridging concept for the social sciences:

> Intuiting is a complex set of inter-related cognitive, affective and somatic processes, in which there is no apparent intrusion of deliberate, rational thought. Moreover, the outcome of this process (an intuition) can be difficult to articulate. The outcomes of intuition can be experienced as a holistic 'hunch' or 'gut feel', a sense of calling or overpowering certainty, and an awareness of a knowledge that is on the threshold of conscious perception. (p. 4)

This definition emphasizes the unconscious processes that produce intuitions, together with the sense of certainty the intuitions provide. Intuitive knowledge occupies a vague between-state on the threshold of what we perceive consciously—we are vaguely aware of our knowledge, but don't know where it comes from.

This work defines intuitive knowledge as *our largely unarticulated sense for how to do things, how things work, and what things mean*. This definition is broad because we rely on intuitive knowledge in at least three different realms: (1) our intuitive sense of the physical world, (2) our intuitive understanding of people and mind, and (3) the learned intuitive knowledge related to skills or internalized bodies of knowledge. These first two categories are relatively "built in" to our perceptual processes, while the third is related to complex knowledge and skills we learn as we interact with our environment. This distinction, however, is very fuzzy. Linguistic intuitions, for example, are built in (as speakers of our L1 we possess "native intuition"), but linguistic patterns are internalized from our environment as we grow up. Similarly, while the ability to read the intentions of others is a universal element of human cognition, doing so successfully requires a process of socialization. That is to say, we can read behavior best in familiar social environments, and have more trouble

intuiting the inner states, predicting behavior, or anticipating the reasoning of, people in foreign lands. Similarly, the intuitions we develop from complex skills, such as playing a sport, are developed from universal abilities such as using our bodies and manipulating physical objects.

In everyday life, the intuitive mind works in the background, guiding us through our day, managing routine tasks, and helping us navigate our interactions with the world. Our knowledge that we are hungry, thirsty, or cold is intuitive, as is the fear we experience when under threat. Our intuitive knowledge is sometimes experienced in terms of urges, desire, motivations, nervousness, disgust, and trepidation. We feel an urge to get up and go to the cupboard for a snack; a desire for the latest tech gadget; motivation to get good grades; nervousness when being approached by a group of rowdy youth; and trepidation when we walk into a room full of strangers. We simply "know" when a sentence in our native language is grammatical. We somehow "read" the faces of friends and intuit their state of mind; we have a "feel" for how much salt to add to our scrambled eggs; we have a "sense" for how to be polite when disagreeing with our father-in-law. Despite its importance, we experience intuitive knowledge quite vaguely as a feeling of rightness, mastery of a task, or simply a bland assurance that objects and people will behave as we expect.

We should take care not to oversimplify. Intuitive knowledge isn't a single thing—there are many cognitive systems that help us navigate our everyday lives. One source of intuitive knowledge is what psychologists refer to as *intuitive physics* or *naïve physics*—our sense for how the physical world works, such as an understanding that a thrown object will not continue on forever, or that water flows downhill, not up. Research has shown that these intuitions about the world start early in life, and are a relatively "built in" part of our perceptual systems (Smith and Vul 2012). Another relatively hard-wired form of intuitive knowledge is our sense for people and mind such as our understanding that people are driven by internal drives and desires. Unlike very young children, we simply *know* that each individual has a point of view unique to them. Some research suggests that this *intuitive psychology* is managed by different cognitive processes than our sense for the physical world (Kamps et al. 2017).

These largely endogenous (inner-driven) forms of intuition can be contrasted with more exogenously (externally specified) forms of intuition. Exogenous intuitions provide us with a sense of the world that we learn through socialization and experience. We have an intuitive sense for expectations about social behavior, and the worldview of communities we participate in. We know whether an idea or behavior will be considered radical, immoral, or typical—whether, for example, our clothes will be considered conservative or risqué. These social intuitions have their roots in *deep culture*—the unconscious background knowledge we acquire from community and society. When we are in routine situations in familiar environments, we may be largely oblivious to these social or cultural intuitions. In a new environment, our intuitive knowledge may fail us. In intercultural contexts, we may find people's behavior inexplicable or unreasonable because it doesn't match our intuitive sense for how things should be done.

## 4.4 Intuitive Knowledge and Complex Skills

In addition to socially based exogenous intuitions, we also gain intuitive knowledge through learning. Klein (1998) refers to our intuitive sense for highly complex behaviors and bodies of knowledge as *expert intuitions*. Klein studied the intuitive knowledge of surgeons and firefighters, and found that they experience their expertise in terms of instinct, sense, or a feeling about a task or situation. One firefighter, for example, ordered his team to leave a burning building just before the floor they had been standing on collapsed. He somehow knew that things didn't feel right. The firefighter himself could not explain or describe the decision-making process, but spoke of a "sixth sense" that he had learned to rely on. While such sensations may seem mysterious, they reflect a basic feature of our cognitive architecture. The intuitive mind learns through an ongoing process of experience, recognizing patterns, predicting likely outcomes, and modifying internal models to match patterns found in the environment. Once we have internalized these patterns, we can act with quick assurance, without resorting to the cumbersome process of consciously analyzing potential outcomes.

Such intuitions are not limited to experts such as heart surgeons or firefighters. Throughout our lifetime, we acquire an intuitive understanding of many complex domains. A jazz musician internalizes musical structures so thoroughly that they can improvise intuitively, without being conscious of particular notes or theories about harmony. We also develop expert intuitions about more mundane skills: cooking, playing a sport, practicing a profession, using a piece of software, playing a video game, working with wood, fixing electronics. A skilled cook "whips up" something to eat or experiments with new dishes based on their "feel" for cooking and ingredients, just as a carpenter develops a "feel" for different woods and building techniques. This sort of expertise involves *internalized knowledge that we act on through a feeling of expertise and creative engagement*. This is sometimes experienced as *flow*, the subjective sense of being fully absorbed and engaged with an activity, to the point of losing track of time (Csikszentmihalyi 1997). Complex intuitive knowledge is related to activities that are pattern based yet not fixed—art, music, language, sports, crafts—they provide us with stable structure that, when mastered, becomes a medium for creativity.

Developing intuitive knowledge of a complex domain requires integrating disparate elements of knowledge into a larger whole—for example, playing soccer requires a range of individual skills, such as ball handling and kicking, together with an internalized understanding of the rules of the game, an ability to read the patterns of play on the pitch, an ability to anticipate the actions and reactions of our teammates, and a larger sense of the significance of a particular game. All of these capacities are integrated into a single intuitive sense that we describe simply as *playing soccer* or *being a good soccer player*. This is true of more abstract domains too. A lawyer learns many facts and procedures when studying law, but with experience develops a "feel" for the law, and may learn to practice law in creative ways. The same is true in any number of domains: a banker can develop a feel for finance; a real estate agent

can have a sense for what's happening in housing markets; an economist may have gut reactions to changes in the state of the economy. Such intuitions are multidimensional, and draw on any number of experiences, all integrated into a unified sense of knowing. Such expertise goes beyond detailed knowledge, or an accumulation of facts—it involves a subjective sense of mastery and creativity within that domain.

Intuitive knowledge builds upon itself at ever-higher levels of complexity. Before we can become a carpenter, we need to learn to use a hammer to drive nails. Even this simple task entails intuitive knowledge. With practice, we learn how to tap gently to get the nail started, then strike it harder as we drive it deeper into the wood, only to ease up toward the end so that we don't bang the surrounding wood. In the beginning, we may often misstrike the nail head, but later gain the mastery to drive nails confidently and quickly. The ability to use a hammer, however, is only one of many skills a carpenter draws on. We need to gain an intuitive feel for saws, planers, screwdrivers, levels, marking tools; we must learn the qualities of different woods; understand design and construction techniques, and so on. Each of these different domains can be learned separately, but as we combine knowledge from these different areas, our sophistication as a woodworker increases exponentially. It takes years to gain a high level of intuitive mastery in a domain as broad as woodworking because it's always possible to incorporate deeper knowledge from any number of related domains.

This more detailed understanding of intuitive knowledge provides us with a new blueprint for understanding language and culture learning. Our ability to read a social situation, or use language, depends largely on intuitive mastery of social and linguistic patterns. This leads to a rather bold premise: *language and culture learners face the same challenge as anyone learning a complex skill*, such as, say, soccer. As with language and culture learning, learning to play soccer involves internalizing knowledge and skills such that we can use it intuitively. It requires combining many discrete elements until we achieve a sense of intuitive mastery. It also requires that we practice with others, play games, and fit into the team. It requires the motivation to show up to practice on time, and the willingness to learn from coaches and teammates. From this perspective, language and culture learning are not separate cognitive functions, they are part of our general ability to master complex skills and develop intuitive knowledge of new domains.

## 4.5 The Intuitive Mind and Deep Learning

Broadly speaking, our intuitive mind learns through experience, pattern recognition and trial and error (Lund 2001). This means it requires time and effort to modify its functioning, and we often can't consciously control this process. Obviously, language learning would be much simpler if we could read an explanation of grammatical structures, and then have that knowledge immediately available for use in real life. But that's not how our mind works. The intuitive mind requires a process of making sense of new patterns and experimenting with them. Typically, we focus our conscious attention on individual elements that we would like to learn, then gradually

experiment with this knowledge as we make mental connections and start to get a feel for how things work. This process doesn't happen in a predictable linear fashion, and thus can't be controlled or predicted by our analytic thought processes. This can be frustrating, as when we can't get the hang of a new skill, or feel awkward as we practice. Experiential learning is a blessing and a curse—it is laborious and time-consuming, but once we have internalized it, our new skill becomes increasingly effortless.

To complicate matters more, the intuitive mind has its own motivational imperatives. It functions independently of our conscious goals and aspirations, and thus drives or resists behavior independently of our conscious mind. We may tell ourselves we should study, but resistant actually doing so. We may consciously know that the third piece of chocolate cake is not good for us, yet feel a powerful urge to reach for it anyway. The attentive mind must work in tandem with the intuitive mind, so that it doesn't turn against us and resist learning and change. It may resist tasks which make us feel uncomfortable, or which don't seem worth the effort (Elliot and Covington 2001).

An understanding of the intuitive mind sheds light on the psychology of language learning motivation, cultural bias, and more. It helps explain why we may rationally believe that learning a foreign language will benefit us, yet find we have no motivation to study (Shaules 2017). It's one reason we should be sympathetic towards unmotivated students—it's not something that they can necessarily control at will. This also helps us understand why ethnocentrism or unconscious bias are so hard to overcome. An intellectual commitment to respecting cultural diversity may go out the window when faced with obnoxious-seeming behavior in a foreign country. Our intuitions are experienced in our guts—as an integral part of who we are. They are not, therefore, easy to change or control. A deep learning perspective reminds us that we must take these deeper, hard-to-control elements of self into account.

## 4.6 Intuitive Knowledge in Intercultural Education

In intercultural education, there is a disparate body of work that touches upon culture and unconscious cognition. As we have seen, Edward Hall wrote about the importance of unconscious cultural programming. Since Hall, the notion that culture affects us in subtle and powerful ways has been widely accepted. Culture is commonly conceptualized as having more conscious and unconscious components, referred to as objective and subjective culture (Triandis 1972), or explicit and implicit culture (Trompenaars and Hampden-Turner 1998). A common metaphor for expressing this distinction is the image of culture as an iceberg, largely hidden beneath the surface of awareness. Culture is also sometimes referred to as a sort of programming, or software for the mind—a computer metaphor which draws attention to the importance of unconscious cultural conditioning (Hofstede 1997). Broadly speaking, then, intercultural educators recognize that culture affects us at deep levels of the self, including the unconscious mind.

In more recent years, researchers have started to go beyond such metaphorical understanding and explore issues of culture and mind more empirically. Markus and Kitayama (1991), for example, have examined the role that culture plays in cognition, emotion, and motivation. This work corresponded with an increased interest in and understanding of unconscious cognition (Hassin et al. 2007). Richard Nisbett, an early researcher in this area, wanted to test the premise, found in cross-cultural studies, that Westerners tend more toward discrete, subject-object thinking, while East Asians have more holistic, context-specific thought processes (Nisbett 2003). He carried out and reviewed a wide range of studies that compared cognitive tasks by people from different countries and regions. He found differences in a wide range of areas that largely supports this basic premise. Such research finds cultural difference in our intuitive understanding of the world—it shows that our feelings of how things work, and our sense of self, and what we pay attention to, can all be shaped by cultural influences that are powerful yet subtle.

While the power of cultural conditioning is increasingly recognized, there has been little focus on how such conditioning can be modified. Hall, for one, felt that gaining awareness of our own unconscious conditioning was a supreme challenge for all of humankind (Hall 1976). Despite progress, however, we are still at an early stage of our understanding of how such deep learning and change happens. Research in cultural neuroscience and cultural psychology often focuses on more foundational issues, such as how culture and the environment shapes and is shaped by the biological processes of the brain (Ansari 2012; Chiao 2009; Dominguez et al. 2009; Han and Northoff 2008; Kim and Sasaki 2014), disentangling universal processes from those that are heavily culturally influenced (Chiao and Ambady 2007; Jack et al. 2012; Matsumoto and Willingham 2009), investigating particular domains, such as numbers (Herculano-Houzel 2009; Tang and Liu 2009), language (Kemmerer 2015; Pulvermuller 2002; Willems 2015), sociality (Han et al. 2011; Kitayama et al. 2013), and, importantly, exploring cultural differences in cognition, emotion, and identity (Han and Northoff 2008; Kitayama and Uskul 2011).

**Deep learning** If unconscious cognition is responsible for many of the intuitions that guide us through our daily lives, then how can we provide ourselves with new intuitive navigation tools? The next chapter attempts to answer this question. It focuses on the notion of *deep learning*—the process of embodying new domains of complex knowledge. Even in the best of circumstances, it is a challenge to learn a foreign language, and to adjust our intuitive autopilot to foreign ways of communicating and interacting. Human interaction is highly complex and culturally mediated. A smile can express shyness or anger; the timing of an invitation can indicate friendliness or distance; we cultivate allies at work among colleagues; we negotiate chores and lifestyle choices at home. Furthermore, we use humor, idiomatic expressions and wordplay to express not only our ideas, but also our individual style and personality. Using a foreign language at this high level of intuitive mastery is not easy. Linguistic and cultural programming is part of our mental operating system, and is not easily changed. With that in mind, the next chapter will explore the notion of *deep learning*, the process by which we can attempt to do so.

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# Chapter 5
# Deep Learning


**Abstract** This chapter explores the notion of deep learning. It argues against the idea that language learning consists primarily of the ability to process a new symbolic code. Deep learning is challenging because it involves the embodiment of complex patterns. This is discussed in terms of the transfer paradox, the idea that breaking up complex knowledge into discrete pieces makes it easy to teach, but difficult to integrate, embody, and apply. It provides a conceptualization of deep learning, which is contrasted with similar notions found in SLA, such as implicit learning. The view of implicit learning in SLA is argued to be heavily influenced by the idea that language use is primarily a form of information processing. Deep learning is also contrasted with informal learning. Understanding levels of complexity is said to be critical for a deep learning approach to language and culture pedagogy. This chapter then reviews the four levels of learning as described by the Developmental Model of Linguaculture Learning.

## 5.1 A Deep Learning Perspective

More than a century ago, John Dewey decried forms of education that emphasized "the mere absorbing of facts and truths", and whose "only measure of success is a competitive one" that seeks to assess "which child has succeeded in getting ahead of others in storing up, in accumulating, the maximum of information" (Dewey 1900, p. 13). Dewey called for an experiential form of education that shaped mind and character at deep levels of self. His work was a call to arms—for reform of how we think about learning, and for recognition of the potential for creative learning and inner development. This, he believed, would help learners to play a productive role in building a better society, i.e., the inner development of the individual contributes to the greater good of all. This work shares this mission. It focuses on deeper forms of learning and development in language and culture education, with the goal of contributing to the greater good in an increasingly intercultural and globalized world.

This chapter argues that we should put less emphasis on *how much* is learned, and more on *how deep* learning is. Learning that is deep is personally meaningful, enriching, and well integrated into multiple aspects of a learner's life and self.



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When we experience deep learning, new knowledge and skills become a natural part of self as they are integrated into existing mental structures. The experience of deep learning is one of a flow state—fully immersed in an activity, in an energized and absorbed mental state (Csikszentmihalyi 1997). Deep learning results in abilities that become a natural, creative part of our behavioral repertoire. Over time, deep learning changes us by transforming how we experience the world.

Dewey complained about education that treats learning as a form of competition to accumulate information. This is a common problem in language and culture education. Many foreign language syllabi are organized in terms of the number of vocabulary words learned, and a list of grammatical structures covered. Tests are designed to quantify that knowledge for the purpose of evaluating learner progress. Cultural learning, too, is sometimes treated as a form of abstract knowledge. Learners may study the history or traditions of a country or a region, for example, or intercultural concepts, such as definitions of the word *culture* or terms such as *intercultural communicative competence*. That's not to say that vocabulary items, grammatical structures, and cultural information is not important. It is a problem, however, if learners face a competitive onslaught of information without the time to integrate it and put it to creative use. This sort of pedagogy is one reason that we hear people say *I studied French for four years in school, but I don't remember a thing.*

There are two ways to think about deep learning—in terms of: (1) the learner experience, and (2) the mental processes involved. The former emphasizes the depth of learning in terms of meaningfulness, emotional engagement, lasting impact, and concern for the whole learner, not simply test scores or performance metrics. The latter relates to the role that conscious, analytic thought processes play in learning, as opposed to the more intuitive, experiential learning processes of the intuitive mind. In effect, learning involves two minds—the attentive mind and the intuitive mind. Surface learning engages the attentive mind relatively more, and results in more conscious knowledge, whereas deep learning results when the attentive and intuitive mind work in tandem. Deep learning fully engages our attention in the experience at hand. It results in abilities that are more fully integrated into the intuitive mind.

This chapter will touch on both of these areas, and compare the notion of deep learning as it is used in this book, and how deep learning relates to similar terms.

## 5.2 Two Learning Selves

A deep learning approach to language and culture pedagogy implies taking into account both attentive and intuitive mental processes—in effect, two learning selves. The attentive mind experiences the world as a form of focused attention and mental manipulation—we focus on things we want to remember, hold ideas in our mind, or do a step-by-step analysis of a problem. The intuitive mind, on the other hand, learns more holistically through experience and experimentation. As we practice something, we get a "feeling" for it, and develop mastery. But we often can't easily break down intuitive knowledge, or explain it in piece-by-piece fashion. That's one reason great

athletes aren't necessarily the best coaches. Coaching requires a conscious, analytic understanding that is distinct from the intuitive abilities that a player needs. A coach may even tell a player not to "overthink" what they are doing because it will impair their performance. Similarly, the ability to explain language (which teachers need), is not the same as the ability to use language (which learners need).

The attentive and intuitive mind don't always play nice with each other. The attentive mind is our cognitive problem solver, capable of conscious observation, analysis, planning, and critical judgment. Unfortunately, these critical processes can short-circuit our intuitive abilities by monitoring what we are doing, and trying to consciously modify it. Gallwey (1974) refers to this as the *critical self*, the inner monologue of self-criticism that we subject ourselves to when we are dissatisfied with our own performance. Using examples from his experience as a tennis coach, Gallwey describes players who berate themselves as they practice, muttering to themselves things such as *Keep your backswing low, you idiot! You're gonna hit the net again!* Unfortunately, such monitoring can be counterproductive. It can impair our ability to experiment and do the trial-and-error kind of learning needed to get a *feel* for what we are doing, and to apply the lessons we've been given.

Language learners often suffer from a highly active critical self. They may carefully construct sentences in their heads as they speak, for example, because they fear making mistakes. When we are nervous or stressed, our problem-solving attentive mind revs up, in order to monitor our progress and try to think our way through our difficult situation. Trying to make a sentence when called upon, or give a presentation in a foreign language, can put our attentive mind in overdrive—interfering with the ability to use what we know smoothly. Our attentive mind can also be overloaded simply because it is bombarded with new information that the intuitive mind doesn't have the opportunity to fully absorb. It needs time and experimentation to process and integrate it. Such pedagogy is top heavy—it has too much information and explanation, and not enough application and experimentation. You can't ignore the attentive mind, but you shouldn't overload it either. Figuring out how to get these two selves working together, such that more integrated intuitive knowledge results, is a key challenge of deep learning.

## 5.3 The Transfer Paradox

This difference between these two cognitive domains—the holistic nature of intuitive knowledge versus the discrete nature of conscious knowledge—creates particular pedagogical challenges. Language and culture educators suffer greatly from the *transfer paradox*. This refers to the idea that the "methods that work the best for teaching isolated, specific objectives are often not the methods that work best for reaching integrated objectives and transfer of learning" (Van Merrienboer and Kirschner 2018). In other words, the most efficient way to teach complex knowledge is to break it up into small pieces and learn them separately. But this pedagogical "efficiency" leads to fragmented knowledge that is hard to use holistically and apply

in real life. While the attentive mind processes information in discrete form, the intuitive mind requires experimentation and experience to integrate new knowledge.

Language teachers constantly face the transfer paradox. They know that students may get correct answers on a vocabulary quiz, yet be incapable of using those words on their own. Learners may successfully mimic L2 pronunciation when practicing isolated words or sounds, but revert back to a more "foreign" pronunciation when speaking freely. They may answer questions about complex grammatical features on a test, yet make very "simple" mistakes when producing language on their own. Diverse knowledge must be integrated at higher levels of complexity. Making a sentence draws on different areas of knowledge—sounds (pronunciation), knowledge of words (lexicon), a grammatical understanding (syntax). These must come together as a single holistic ability. When you break down skills into individual parts and teach them separately (atomizing), however, you lose sight of the whole. Focusing separately on vocabulary, pronunciation, and grammatical patterns, for example, can make it harder to apply these skills together. Herein lies the paradox: for complex skills, what's efficient for teaching (atomization) is inefficient for learning (integration).

There's a similar challenge with cultural learning pedagogy. Cultural understanding requires much more than an accumulation of facts. It requires more than a set of rules of etiquette, or cultural does and don'ts. Cultural understanding and insight is holistic and intuitive. That's why when we try to make generalized statements about cultural difference, we run the risk of stereotyping. Doing so attempts to describe dynamic cultural patterns in simple, static terms. In terms of pedagogy, then, we need to learn how to guide learners from simpler, to more complex forms of cultural understanding and insight. We need to see how discrete elements of cultural knowledge can be built up at higher levels of complexity, such that this more holistic, intuitive understanding emerges. This implies an experiential, holistic approach to pedagogy that progresses overall from simple to complex—from conceptual and analytic to holistic and intuitive.

Overcoming the transfer paradox requires an approach to learning that is both cumulative (involving addition bits of information or discrete skills) but also developmental (it goes from simple to complex). The DMLL describes such a developmental progression. It allows us to look at learning in a step-by-step way that keeps the big picture in mind. This provides us with a pedagogical roadmap that is focused clearly on the process needed to gain intuitive understanding. Before looking at deep learning as described by the DMLL, however, it's worth reflecting on the notion of deep learning more generally, and contrasting it with similar conceptualizations.

## 5.4 Conceptualizing Deep Learning

In this work, the term *deep learning* refers *to the integration of complex skills into the intuitive mind in a process that is meaningful and engaging for learners*. This is a broad definition that overlaps with competing conceptualizations. In everyday

speech, for example, referring to an experience as *deep* can mean different things. It can refer to something that engages our feelings (deeply felt) or is highly meaningful or elaborated (deep thoughts). Similarly, an idea or experience that is deep influences us in fundamental ways. An idea may be *deeply meaningful* and meeting someone can leave a *deep impression* on us. By contrast, experiences that are described as shallow or superficial are more obvious, routine, and superfluous. A superficial conversation leaves little trace on us, and is soon forgotten. In general terms, then, the notion of learning which is deep implies a more fully engaging experience that involves us at a more foundational level of the self.

In educational psychology, the term *deep processing* has been used to refer to memory recall related to more elaborate analytic processes, as opposed to surface processing, which is related to a word's appearance or sound (Craik and Lockhart 1972; Craik and Tulving 1975). More recently, *deep learning* has been used to refer to the processing of implicit patterns of knowledge. Computer scientists use this term to refer to pattern-recognition algorithms that allow computers to learn on their own (Jones 2014), which has led to advances in speech and image recognition, and translation software (Lewis-Kraus 2016). In educational psychology, the term *deep learning* can refer to a more contextualized, reflective and abstract understanding, as opposed to a more superficial focus on information and facts (Halbert and Kaser 2006; Rhem 1995; Sawyer 2014). Both in artificial intelligence and in education, then, deep learning focuses on meaningful patterns—such as the recognition of an object, or a writer's point of view—that are not explicitly stated or defined, and thus must be inferred indirectly.

This work uses this distinction between explicit (more concrete and directly perceivable) versus implicit (more abstract and indirectly perceivable) meaning as a starting point for articulating a view of surface and deep language and culture learning. Largely in line with both educational psychology and artificial intelligence, the term *surface* refers to explicit phenomena that are more directly observable by the senses—as objects we can see or sounds we hear—and conceptual knowledge that we manage through the intentional processes of the attentive mind. (Using the word *surface* as an adjective is awkward, but the term *superficial* is avoided because of its negative connotations). The term *deep* refers to elements of experience that are perceived indirectly as patterns, and experienced through sensations and intuitions. Explicit elements of experience are more associated with conscious thought and analysis, and concrete experiences that are easier to conceptualize and put into words. More indirectly perceived phenomena are more difficult to articulate, and are experienced more intuitively (Kahneman 2011). It follows, then, that surface learning involves more explicit forms of (primarily conscious) knowledge, while deep learning involves integrating complex (abstract) patterns of (primarily unconscious) knowledge into the intuitive mind. These ideas are summarized in Table 5.1.

Unconscious processing and intuitive knowledge are touched upon in a variety of fields, including foreign language education. The term "native intuition" typically refers to an L1 speakers' intuitive understanding of grammaticality and language use (Abrahamsson 2012). In addition to grammatical intuitions about language use, intuitive knowledge in social interaction is recognized by social psychologists, who refer

**Table 5.1** Deep and surface learning

| Attentive processing/Surface learning | Intuitive processing/Deep learning |
|---|---|
| Explicit knowledge | Implicit understanding and abilities |
| Discrete skills | Complex skills |
| Conceptual | Experiential and pattern based |
| Conscious thought processes | Intuitive thought processes |
| Analytic problem solving | Experimental problem solving |
| Linear thinking | Holistic thinking |
| Experienced "in your head" | Experienced as doing and being |
| Focused on performance | Focused on development |
| Discrete chunks of knowledge | Complex forms of knowledge |
| Intentional | Automatic |

to it broadly as *social cognition* (Moskowitz 2005), and *schema* (shared frameworks, associations, and background knowledge) and *scripts* (interactive routines of daily life). Language use is also recognized to involve an intuitive understanding of cultural nuance, social expectations, and worldview (Byram et al. 2001; Kramsch 2015). From the perspective of the intuitive mind, linguistic knowledge and socio-cultural knowledge are closely related, since our intuitive sense for linguistic meaning is rooted in our cultural worldview (Fantini 1991; Luna et al. 2008).

## 5.5 Explicit and Implicit Learning in SLA

The field of Second-Language Acquisition (SLA), commonly distinguishes between *explicit learning*—which involves focused attention and conscious effort and analysis—and *implicit learning* that happens out of conscious awareness (Budzowski 2009; Ellis et al. 2009; Rebuschat 2015). In a review of the paradigm of implicit and explicit learning, Dornyei (2009) points out the concepts of explicit and implicit learning overlap and compete with a number of conceptualizations, such as: explicit/implicit knowledge, explicit/implicit memory, incidental versus intentional learning, as well as declarative and procedural knowledge. These terms are related, in turn, to concepts such as consciousness, the noticing hypothesis, automatization, and skill learning theory.

Research in this area has often focused on the relationship between explicit instruction and implicit learning—our ability to simply pick up a language informally, versus our need for structured language instruction (Budzowski 2009; Ellis et al. 2009; Suzuki and DeKeyser 2017). Research involving artificial grammars has shown that

through trial and error it's possible to learn grammatical patterns intuitively without receiving any explicit instruction (Rebuschat and Williams 2012; Reber 1967). Research has also shown, however, that instruction that focuses learner attention explicitly on elements to be learned is more effective than instruction in which learning is incidental and implicit (Norris and Ortega 2000). Other research has focused on how to measure implicit and explicit knowledge (Ellis 2009) and how implicit and explicit knowledge contribute to language proficiency (Budzowski 2009). While these processes are talked about as separate, and studied separately, Nick Ellis argues that language learning typically involves a dynamic and complex engagement of both implicit and explicit processes (Ellis 2015).

Conscious and unconscious learning is also discussed in terms of declarative and procedural knowledge. Declarative knowledge has been called "knowledge that takes the form of a factual or declarative statement" (Winne and Azevedo 2014), as when someone says "Adjectives are words that modify nouns." Procedural knowledge is "knowledge of processes and actions for addressing a task, often called know-how" (p. 65). More broadly, Krashen (1982) has argued for a distinction between language *learning* (a conscious process of focused attention and analysis) and *acquisition* (implicit learning). In addition, the learning of vocabulary can be talked about in terms of breadth (the number of words) and depth (knowledge of many aspects of a word) (Hatami and Tavakoli 2012). At the level of classroom practice, language teachers commonly distinguish between accuracy practice—focusing on a conscious understanding of linguistic patterns—and fluency practice, which focuses on using language spontaneously. Within the field of SLA, then, the distinction between surface and deep elements of knowledge and learning is widely recognized. That distinction has not, however, been used to bridge the language–culture gap. It has tended to be seen as something specific to language learning, rather than related to intuitive knowledge more generally.

## 5.6 Implicit Learning Versus Deep Learning

There are important distinctions between implicit learning as it's discussed in SLA, and the conceptualization of deep learning as it presented in this work. Research into explicit and implicit learning in SLA is heavily influenced by a cognitive perspective—one that sees language learning in terms of the acquisition of grammatical forms (Skehan 1998). Such an approach attempts to isolate the learning processes that are particular to using language, and makes an implicit assumption that those processes exist separately from other abilities. Such thinking has its roots in the Chomskian idea of the language acquisition device, or universal grammar (Chomsky 1965). Understandably, SLA focuses on the elements of learning particular to language, with less emphasis on more universal aspects of learning and cognition. No doubt, learning a foreign language is different in important ways from acquiring other complex skills.

An understanding of embodied cognition reminds us, however, that language learning involves much more than the unconscious inputting of grammatical patterns. It draws on cognitive systems that engage us at multiple levels of self, and are used for learning in other domains as well. That is to say, there is no localized, distinct Chomskyan language acquisition device, and language learning draws on a wide variety of cognitive processes. From the perspective of the intuitive mind, language and culture learning are two strands of a much larger constellation of cognitive processes. As with other complex skills, once linguistic patterns are internalized, they are experienced intuitively not analytically. In this view, a fluent language speaker is like a jazz musician, who loses herself in the music as they improvise. This is not simply anecdotal. Research has shown that when improvising, jazz musicians show a deactivation of the neural substrates responsible for self-monitoring and volitional control (Limb and Braun 2008). This perspective allows us to see language and cultural learning in the context of our intuitive experience of the world generally, not as distinct cognitive processes.

## 5.7 Surface and Deep Culture

The distinction between explicit (surface) and implicit (deep) elements of perception and meaning is a common way to talk about culture. Triandis (1972), for example, distinguishes between *objective culture* and *subjective culture*. The former involves phenomena that are associated with more direct perception through the senses, with the latter associated with more abstraction and indirect experience. Triandis proposes a hierarchy of concrete to abstract, starting with discriminable stimuli (things we see, hear, etc., directly through our senses), to elemental categories (categorization of our perceptions), and concepts at different levels of abstraction. Thus, concepts such as *rock* and *water* are considered more concrete than *government* or *phenomenology* because they are more closely related to direct perception. We can experience water directly, even without knowing a word for it, while understanding the word *phenomenology* is less directly related to the senses, and involves complex conceptual knowledge. Subjective culture is said to involve "cognitive structures" such as attitudes, values, and value orientations.

Similarly, Trompenaars and Hampden-Turner (1998) describe culture in terms of "common ways of processing information among the people interacting" which results in a "shared definition of a situation" (p. 20). This is a constructivist view, which sees cultural commonality not in terms of whether people act in the same way, but in whether they have a similar framework with which to interpret a given situation. Similar to Triandis, culture is described as being relatively more *explicit* or *implicit,* with the former referring to the "observable reality of the language, food, buildings, monuments, agriculture, shrines, markets, fashions and art" (p. 21). Explicit culture acts as symbols of deeper layers of cultural meaning: norms, values, and basic assumptions. These more abstract elements of culture are largely unconscious, and represent ways of relating that have become automatic.

Shaules (2007) argues that intercultural adjustment and adaptation involves a process of deep learning. He distinguishes between *surface* and *deep* forms of cultural learning—the former involves explicit elements of culture (food, architecture, ceremonies) and the latter more implicit (norms, values, assumptions, communication styles). This is an open-systems view that sees humans responding to the adaptive demands placed on us by foreign surroundings or interactions. As we walk the streets of a new city, learn to use the bus system, or struggle to communicate with the locals, our cognitive systems are engaged in an unconscious learning processes of *resisting*, *accepting,* or *adapting* to the foreign patterns we experience. According to Shaules, intercultural understanding happens at different *depths* of experience—we may adapt to superficial elements of culture (food, transportation system) even as we resist deeper elements (values, communication styles).

## 5.8 Deep Learning and Complexity

As articulated in this work, deep learning relates to the process by which we integrate complex bodies of knowledge. This refers to more than simply learning by doing. In contrast to this, we sometimes use the term *formal learning* to describe the education we get in school, and *informal learning* to describe what we learn in the course of everyday life. Informal learning is associated with demonstrating and practicing, and throughout our lives we learn countless skills this way—putting on clothes, mowing a lawn, brushing our teeth, cooking, typing, changing a diaper. The idea of informal learning is typically associated with relatively simple everyday skills. There are relatively few elements that need to be mastered. Changing a diaper, for example, is not highly complex—it can be broken down into a simple set of steps. With a bit of trial and error, we pick up the ability to change a diaper without needing formal instruction.

Informal learning is often inadequate for complex bodies of knowledge. To see why this is so, it's important to understand the notion of complexity. In everyday life, saying something is complex simply means it is complicated or has an intricate structure. As a way of understanding natural systems and learning processes, however, the term complexity is used in a specific way. Complexity theory relates to the study of systems with many interacting elements (Lewin 1992). It is used to try to understand phenomena with so many interacting parts that predictions about what will happen are extremely difficult. Such complexity is common in the natural world. A school of fish, for example, creates elaborate, largely unpredictable patterns as it flows and swirls through the water. Such patterns are not programmed, however. They emerge from the interaction of the individual fish—each operating under fairly simple behavioral constraints.

Newtonian physics treats the world as something akin to a machine—with enough data, we can calculate future outcomes. Complexity deals with nonlinear phenomena that are hard to predict in this way. The term *butterfly effect* popularized one element of complex systems—it refers to how a small change in one part of the system

can have a large impact on the system overall. This term was coined by Edward Lorenz, who famously spoke of a butterfly flapping its wings in Brazil that might produce a tornado in Texas (Lorenz 1993). Running computer simulations of weather patterns, he found that tiny differences in initial input could have a cascading effect and create hugely different outcomes. Weather patterns are hard to predict precisely because different factors—temperature, humidity, wind, pressure—interact such that it's extremely difficult to know what will happen next. Complex systems can give rise to unpredictable behavior yet not be random. They are systematic yet dynamic.

Complexity theory provides ways to make sense of systems that can't easily be explained in cause-and-effect terms. These include the idea of *chaos*, which refers to systems that are highly sensitive to initial conditions; a *phase shift*, when a dynamic system suddenly changes from one state to another; *attractor states*, a stable equilibrium that a system tends to revert to; and *strange attractors*, which refers to regularities that are interrupted by sudden short-term change; and *path dependence*, the idea that past choices or developments have an impact on into the future. These ideas are starting to be applied to second-language acquisition theory (Larsen-Freeman 2011). Larsen-Freeman points out that language and culture learning does not proceed in a simple linear fashion. It is marked by sudden flashes of insight, plateaus in learning, or things seeming to somehow come together in a process of *emergence*. This refers to simpler phenomena combining such that a system operates at a higher order of complexity. By way of example, to learn to play poker you must learn rules—the purpose of the game, the values of different card combinations, together with the procedures of the game—dealing, placing bets, discarding, and drawing cards. The ability to play poker *emerges* when all of the necessary elements have been internalized such that we can play the game. The notion of emergence reminds us that complex abilities involve more than a sum total of its parts—they must come together in dynamic yet systematic ways.

At both the macro-(societal) and micro-(individual) level, both language and culture function as complex systems. They are dynamic, yet stable, and emerge from the interaction of many individuals that form linguaculture communities. They are both group-level phenomena, and no individual can contain the totality of a community's linguistic or cultural knowledge. Because linguaculture communities are complex, they don't have clear boundaries. Within the individual as well, linguistic and cultural knowledge is complex. By internalizing complex patterns, we use language in ways that are both systematic, yet uniquely individual. Gaining this ability requires more than building up bits of information piece-by-piece. It involves gaining an intuitive understanding of the system as a whole, even if we have imperfect or limited knowledge. And finally, at an even more micro-scale, the cognitive systems we use to process and learn language are complex. They need to be understood in holistic terms, even as we seek to understand discrete elements and processes.

## 5.9 An Integrated Model of Language and Culture Learning

The deep learning approach is grounded in the idea that language and culture learning involve the integration of complex knowledge into our intuitive mind. As has been touched upon, this doesn't happen in a straightforward, step-by-step way. Instead, learning shifts to higher levels of complexity, as described by dynamic skill theory and the DMLL. As seen elsewhere in this work, these four levels can be illustrated visually as in Fig. 5.1. This diagram illustrates the process of deep learning. It represents both the increasing complexity of learning (data, mapping, and networks within the circle) as well as the subjective experience of learners—with the external element which first feels foreign, and then is integrated more fully. These four levels are discussed more fully in Chaps. 10 and 11.

The four levels of the DMLL represent a roadmap to deep learning. They are intended to help educators organize learning so that the attentive mind doesn't get overloaded, that new knowledge has a chance to be integrated, and so that what is being learned builds upon itself, and results in more deeply integrated abilities. Deep learning requires more than regulating the flow of information to students. We need to be aware of the developmental processes that take place within them as well. We need to adjust activities to fit their level of development, and provide support so that they can reach higher levels of cognitive complexity. And we need to help learners understand these things too, so that they can better manage their own learning.

**Implications of the deep learning perspective** This chapter has given an overview of the notion of deep learning. This forms an important building block for a more detailed description of the Developmental Model of Linguaculture Learning in Part II of this book. Before we get to that, however, Chap. 6 looks in more detail at the psychological implications of deep learning. A deep learning approach focuses not only on understanding socio-cognitive processes, but also on the subjective experience of learners, the psychological challenges of adapting oneself to patterns of

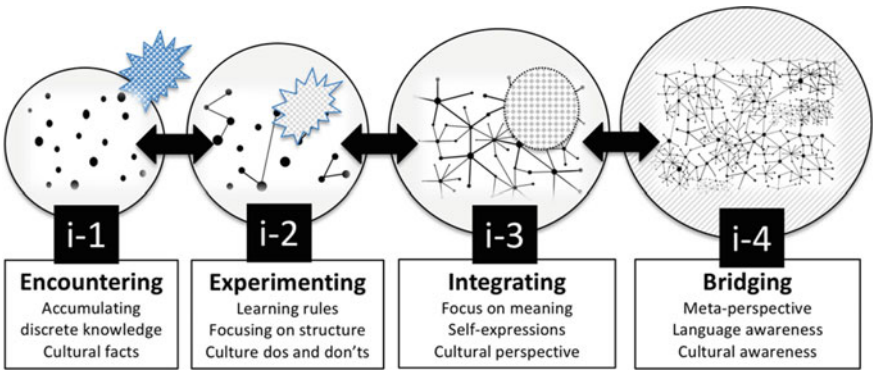


**Fig. 5.1** Levels of linguaculture learning

foreign thought, behavior, and self, and the potential for personally meaningful and transformational learning experiences. Just as a good coach goes beyond athletic performance, nurtures players as whole human beings, and uses sport to teach larger lessons about life, language, and intercultural educators need to recognize that their job touches upon deep elements of self. As learners integrate foreign linguistic and cultural patterns into the intuitive mind, they are restructuring foundational elements of the self—they are growing as human beings.

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# Chapter 6
# The Psychology of Linguaculture Learning


**Abstract** This chapter explores the psychology of deep language and culture learning. Its fundamental premise is that both language and culture learning provoke strong psychological responses in learners. It is argued that this psychological intensity is recognized among language educators, but is not given a great deal of attention. Often, it is described in terms—such as *learner anxiety*—that imply psychological disfunction. A deep learning approach, however, sees these stresses as a natural part of the learning process. Learners are forced to deal with adaptive demands—the need to adjust to foreign elements of their environment. This is seen as an extension of the broad imperative of all living things to adjust to the demands of their environment through *engagement* (approach motivation), and/or *resistance* (avoidance motivation). This chapter argues that the notions of engagement and resistance provide insight into language learning motivation, and the stresses of intercultural adaptation. This dynamic is argued to be fundamentally similar for both language learning and adapting to a foreign cultural environment.

## 6.1 The Psychology of Linguaculture Learning

Language and cultural learning can be psychologically intense experiences. It's common for learners to get nervous or feel stressed when practicing a foreign language. It's easy to feel stupid when you feel inarticulate, don't understand what's being said, or can't follow what's going on. Similarly, adapting to new cultural surroundings is taxing. It's tiring to be surrounded by strange sights and sounds, disorienting to navigate in unfamiliar places, and stressful to interact with foreign people. At the same time, this psychological intensity can be exhilarating. It's fun to use a foreign language when buying carrots in a marketplace abroad. Travel can be an exotic adventure that pulls us out of our daily routines. Seeing how people live in another country can be an eye-opening experience. And mastering a new language as we do this can be satisfying indeed. In ways big and small, language and culture learning is intense, and can have a big psychological impact on us.

This chapter explores the psychology of deep learning. It builds on a foundational assumption found in this work—that language and culture learning are complex,



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embodied processes; they involve much more than gaining factual knowledge or individual skills. They are an integral part of our cognitive architecture, and thus are experienced at deep levels of the self. This chapter will propose that language learning and cultural adaptation place similar psychological pressures on learners, and can be seen in similar terms. Both can be seen as an *adaptive process* that involves integrating foreignness into our socio-cognitive systems. That is to say, the psychology of language learning and intercultural adaptation are fundamentally similar.

This is an unconventional view. The terminology used to discuss the stresses of intercultural adaptation (culture shock, culture stress, adaptation, adjustment, acculturation, marginality), differs from the ways we normally discuss the psychology of language learning (motivation, demotivation, learner anxiety, willingness to communicate, L2 self). By looking at language learning from the perspective of intercultural adaptation and adjustment, however, we gain a more integrated view of language and culture learning, as well as insight into overlooked psychological aspects of the language learning experience. The intercultural adjustment perspective sees both language and culture learning in terms of developing a new set of socio-cognitive habits—internalizing a "new normal" into the autopilot of our intuitive mind. In a foreign country, this may involve learning to negotiate with a Jitney driver in Manila, or adapting one's working style to foreign colleagues. In the language classroom, these new habits are the foreign language itself—its hard-to-enunciate sounds, different words, unfamiliar syntax, and the foreignness found in the cultural worlds of that language's speakers.

This chapter introduces terminology normally used to talk about intercultural adjustment, and applies it to foreign language learning. This allows descriptions of language learning processes to mirror those of cultural learning processes. This includes the notion of *adaptive demands*—the idea that language and culture learning place psychological pressure on learners. As is true for any organism, facing novel elements in one's environment provokes either positive engagement or a defensive retreat. These demands are *disruptive*—they interfere with habitual functioning and can thus provoke *resistance*, a psychological defense against unwanted change, as well as *engagement*, the psychological openness toward the foreign elements we encounter. The psychology of intercultural adjustment reminds us that while language and culture learning may provoke psychological resistance, it can also lead to deeply meaningful learning experiences.

## 6.2 The Demands of Language and Culture Learning

Even in today's globalized world, adapting to foreign cultural environments is psychologically challenging. Despite technological convenience, spending time in foreign surroundings can provoke stress related to the difficulty of meeting everyday needs, but also more generalized feelings of malaise, loneliness and psychological distress (Furnham and Bochner 1986; Ward et al. 2001). This is particularly true for

longer stays. Shaules (2007), for example, describes the "hidden challenges of global living" that come from confronting the deeper, more subtle elements of cultural difference. This is one reason intercultural trainers and educators are needed to help expatriate workers adjust to the demands of living and working abroad (Wederspahn 2000), and it reminds us that migrants who must integrate into a host society face a long, psychologically challenging process of creating a life in their new home (Kim 2001a). Cross-cultural psychologists have analyzed these cross-cultural stresses, and have attempted to identify personality traits that are key to having a positive experience (Matsumoto et al. 2006). Such work reminds us that while foreign experiences, travel, and living abroad can be exotic and exciting, cultural learning is not always experienced in positive ways—it produces stresses as well as excitement.

Language learning is also demanding. Often, this is simply talked about in terms of effort and time spent learning. For example, the American Foreign Service Institute (FSI)—responsible for training the US diplomatic corps—estimates that the "easiest" languages for English speakers—such as Dutch, French, Italian, and Spanish—require 600 hours of training to reach professional-level proficiency. For the most difficult languages, such as Arabic, Mandarin, or Japanese, FSI estimates a total of 2200 hours of training—something like 7 years of study at 6 hours per week. If anything, these numbers may be optimistic, because they are designed with career diplomats in mind, and are not indicative of how people learn in real life. Still, they provide a brute-force reminder of the investment required of language learners.

Yet there is an artificial quality to such estimates. Describing language learning in such terms is highly reductionist—it takes a psychologically demanding process and describes it in simple terms of mental exertion. This is something like counting the number of notes you have to play to become a concert pianist. Learning a language requires personal commitment and psychological engagement. Just as one must love music in order to become a skilled pianist, learning a foreign language is as much a lifestyle as a purely academic pursuit. Successful learners typically go beyond their class assignments or textbook exercises, take an interest in travel, foreign songs, movies, and so on. They are often driven as much by curiosity as by coursework requirements. For most learners, maintaining motivation and finding ways to keep making progress are an ongoing issue.

The psychological demands of language learning receive relatively little attention in the professional literature. The study of affect in language learning, for example, primarily focuses on modeling how affect influences learning outcomes (Schumann 1997, 2004, 2015; Schumann et al. 2004). There is little emphasis on the thoughts, feelings, and personal reactions that make language learning psychologically challenging and rewarding. As Dornyei (2009) points out:

> Everybody knows that classrooms are venues for a great deal of emotional turmoil, yet affect has been an almost completely neglected topic in educational psychology. Everybody knows that the study of a second language can be an emotionally taxing experience, yet affect has been an almost completely neglected topic in applied linguistics. And finally, everybody knows that emotions are frequent sources of action—for example, when we act out of fear or anger or happiness—and yet affect has been an almost completely neglected topic in motivation research (p. 219).

There are exceptions. Stevick (1976, 1980) emphasizes the psychological stresses of language learning, pointing out that learners find that "information is being imposed on us from outside ourselves. … We find ourselves in a position of being ignorant, powerless, and constantly evaluated—a clear denial of our primacy" (Stevick 1980, pp. 9–10). Such an experience, he reminds us, can be traumatic. Similarly, some teaching methodologies, such as *Suggestopedia* or *Community Language Learning*, emphasize the creation of non-threatening and more deeply meaningful learning environments (Curran 1972; Lozanov 2005). Tochon (2010, 2014) has outlined what he calls a *deep approach* to language learning—one that focuses on student-directed projects that integrate language and culture thematically and holistically (Xiao 2015). Such work reflects a humanistic concern with the well-being and personal development of learners, and is concordant with this work.

Other scholarship, however, treats the psychological challenges of language learning largely in terms that imply learner dysfunction. Negative terminology includes *learner anxiety* (Horwitz et al. 1986; Trang et al. 2013) *demotivation* (Kikuchi 2013, 2015; Sugino 2010) or (a lack of) *willingness to communicate* (Yashima 2002). Such terminology subtly implies pathology. Learner anxiety, for example, has been defined as "the fear or apprehension occurring when learners have to perform tasks in a target language in which they are not proficient" (Zhang and Zhong 2012). This implies that learners who feel nervous suffer from a psychological condition—learner anxiety. Likewise, terminology such as *willingness to communicate* implies that learners who hesitate to use a foreign language are *unwilling,* i.e., they lack some normal willingness. Even the term *demotivation* carries with it an assumption of lack or absence—as though motivation were the natural state, and demotivation represents an aberrant condition.

Such terminology overlooks a broader truth. Language learning, due to its fundamentally intercultural nature, requires a great deal of psychological change and adjustment. From the linguaculture perspective, having powerful psychological reactions to the demands of linguaculture learning are not a sign of dysfunction, they are a normal part of the learning process. A more integrated view of language and culture learning encourages us to see language learning—like cultural learning—as an adaptive process that involves change and development, and thus touches us at deep levels of the self. This idea is concordant with a sociocultural view of second-language acquisition (Gardner 1985, 2010; Lantolf 2000), and the idea that "the learning of a second language involves taking on the features of another cultural community" (Gardner 2010, p. 2). Gardner argues that because language is tied so closely to our sense of self, "learning another language in school is unlike learning any other subject" and that "it involves making features of another cultural community part of one's own repertoire." He recognizes that for some, "this can be a very positive enriching experience, but for others, it can be a difficult negative one" (Gardner 2010, p. 3).

To be clear, language and culture learning do not require an uncritical absorption of foreign ways of thinking, valuing and relating. Deep learning involves gaining an intuitive understanding of the system, so that we can choose for ourselves how to act. Learning the "rules of the game" of a foreign language or cultural community

doesn't mean we always have to play by the rules. We may be uncomfortable with certain cultural practices, or they may go against our moral values, or personal sense of what's important to us. It is also true that there are limits to the human capacity for flexibility and change. Very few foreign language learners will reach something close to L1 speaker abilities. We cannot—and shouldn't try to—simply transform ourselves into a different cultural person. These limits, however, are a reminder of how deeply rooted language and culture learning can be.

## 6.3 The Psychology of Foreignness

From the socio-cognitive perspective, both language and culture learning entail an *integration of foreign patterns into the intuitive mind*. Arriving in a foreign country, we are confronted with patterns of behavior and thought that are unfamiliar or even threatening. Psychologically speaking, it's no accident that the word "foreign" has negative connotations. Referring to someone as a foreigner emphasizes outsider status or otherness, and implies a lack of acceptance. If we describe music or food as foreign we imply distaste. Common synonyms for foreign include negative-sounding words such as strange, weird, alien, and bizarre. Foreign ideas, ways of thinking, or patterns of behavior can also be experienced as a threat. Above all, foreignness implies something not integrated into normal functioning, with the implication of danger, disruption, or damage to the integrity of the organism. Of course, foreignness can be experienced as positive. It's also what makes visiting another country feel exotic. It's no accident that we speak of getting "hooked" on travel, given the psychic rush it can bring. Ultimately, foreignness is stimulating, but can be tiring and even threatening. For better or worse, our reaction to *foreignness* is at the center of the psychology of intercultural experiences.

The linguaculture perspective reminds us that language learning—even in the classroom—unavoidably involves dealing with foreignness. It requires a long-term willingness to experiment with the unfamiliar—to coax strange sounds from our mouths, search for words, piece together sentences, make countless mistakes, bumble through even simple interactions, and adapt to different modes of thought and communication. Reorganizing our cognitive processes requires effort and change—it involves more than mental manipulation of conceptual symbols (Bergen 2012). Attempting to change these patterns is challenging, and can catch learners off guard if they "forget, or are unaware of, the power that language has over our minds and our lives" (Elgin 2000, p. 239). Integrating new linguacultural patterns involves disruption and the creation of new cognitive structures. This can provoke a defensive reaction by the pattern recognition and threat response functions of the unconscious mind (Klein 1998; Lund 2001).

Foreignness is not, however, counter to learning and development. On the contrary, anything we learn is, by definition, new. Learning of all kinds involves integrating new elements into the self, and we are stimulated by novelty. Many motivated learners talk about their interest in the L2 being sparked by having a foreign neighbor, traveling

abroad, liking foreign music or movies, reading books or manga from another country. The learners we describe as motivated are those for whom foreignness generates curiosity and interest, rather than resistance. The foreign experiences that can create adaptive stress, can also promote growth and transformation. Our goal as educators is to create a learning environment that nurtures the latter while taking into the account the former. From this perspective, foreign language pedagogy is, above all, a process of mediating foreignness.

## 6.4 Adaptive Demands

Experiencing foreignness places *adaptive demands* on the learner. This term is rooted in evolutionary biology, and refers to the interaction between an organism and its environment, in which desirable elements are integrated, and undesirable elements are avoided or expelled. In biology, this is associated with the process of exocytosis—the expelling of foreign matter from within a cell—and endocytosis—the "eating" (taking in) of matter into the cell. On a larger scale, all living organisms mediate their relationship with their environment in ways large and small. We ingest food and reject spoiled or disgusting materials. We retreat from the cold, or soak in the warming sun as necessary. We avoid people who don't like us, and seek out validation. This process is critical to our well-being when our environment changes, or when we encounter foreign or unexpected phenomena. Put simply, foreignness represents both threat and opportunity, and we have an instinctive tendency to evaluate our situation and respond accordingly.

Kim (2001b) adopts a similar perspective in her integrative theory of intercultural adaptation. She argues for an open-systems view of cultural adaptation—the idea that we are in constant interaction with our social environment, and reflexively adjust our psychological boundaries in response to our perceptions of our situation. Shaules (2007) extends this idea to the psychological challenges of both short and long-term sojourns, and argues that there are three possible adaptive responses to adaptive demands—resistance, acceptance, and adaptation. A similar view can be found in foreign language education. Schumann (2004), for example, argues that second-language acquisition is closely tied to a preference/averse response, evaluating stimuli in terms of maintaining balance within our physiological systems (homeostatic value), seeking successful social interaction (sociostatic value) and preferences we have learned through experience (somatic value). Self-determination theory, which sees learning in terms of an innate human tendency to develop increasingly elaborated self-structures, sees negative reactions to learning challenges as not uncommon (Ryan and Deci 2002).

Despite general recognition of its challenges, there is a broad tendency to see language learning as psychologically neutral. We see this in the term *language acquisition*—which implies that learners are seeking out and acquiring something. The implicit assumption is that learners who learn are *motivated* to do so—they take action to acquire the language, whereas *unmotivated* learners are inert or passive.

This creates a metaphoric understanding of language learning as a form of taking or getting, with the learner's (conscious or unconscious) decision-making at the center of this process. In this view, the difficulty of language learning would seem to simply be the amount of time or effort required to acquire the new language. As any teacher can tell you, however, the ability to make effort and maintain motivation depends on the learner's subjective feelings about the rewards and frustrations of learning. The learner's perception of foreignness—is the language exotic and attractive or off-putting and unpleasant—is central to the view of learning in this work, and to seeing language and culture learning as a fundamentally similar process.

## 6.5 Disruption

This work proposes that just as a foreign environment places adaptive demands on a sojourner, *language learning represents a psychological imposition on the learner*. This is true in at least two ways. Many language learners do not make an independent choice about what to learn, or how to learn it. They are responding to demands that have been imposed by their teacher, their class, their school, and their society—often in the context of foreign language learning requirements. They are told what to do when, and how. Naturally, all classroom learning makes institutional demands of learners—the larger point is that language learners often lack fundamental agency, and their learning activities are often not freely chosen. Such institutional demands are largely taken for granted by both educators and learners. That does not mean, however, that their psychological implications can be discounted. If we accept the idea that language and culture learning are more psychologically demanding than other subjects in school, we must recognize that resistance to such demands is natural.

Beyond this, language learning itself is psychologically *disruptive*—it requires the integration of foreignness into our cognitive and behavioral repertoire. It challenges existing patterns of communicating and thinking. It is qualitatively different from, say, memorizing the digits of pi, or learning about the French Revolution. Memorizing facts or learning difficult concepts may be mentally tiring, but typically requires less recalibration of existing knowledge—it's less of a threat to existing self-structures. Language learners, on the other hand, are expected to express themselves with highly limited linguistic tools—one's normal way of communicating is disrupted and inhibited. Even low-level learners are often expected to greet each other or introduce themselves in the L2, and mid-level learners may need to do role-plays, or exchange opinions, using linguistic structures they still find difficult and unnatural.

At higher levels of learning, learners may need to make unfamiliar sociocultural distinctions. An English speaker learning Japanese finds that words used for counting depend on the shape of the object being counted, and that even simple words such as *eat* vary depending on the hierarchical relationship between speakers. A German speaker learning Kiswahili will find multiple categories of honorific expressions, as well as norms—such as addressing an older woman by saying *shikamo bibi*

(I hold your feet lady)—that contrast sharply with German communicative expectations (Habwe 2010). Adjusting to these differences requires more than intellectual knowledge. We must embody these differences to master a language. This is not just adding new elements to an existing storehouse of knowledge, but creating a new domain of knowledge from the ground up.

## 6.6 Linguaculture Resistance

An intercultural adjustment perspective provides a fresh way to look at issues of motivation. What language teachers describe as a lack of motivation, can, for example, be understood as a form of *resistance*, a term usually applied to negative judgments about cultural difference among sojourners (Shaules 2007, 2010, 2016). Shaules (2014) defines resistance as a "psychological threat response, in which we resist the integration of new patterns" into the cognitive architecture of our minds (p. 88). In this view, encountering cultural difference can easily provoke defensive reactions, negative judgments, or cultural denigration. Shaules (2007, 2010) has argued that negative reactions to encounters with cultural difference are a natural part of the cross-cultural adjustment process. He describes resistance as a "cognitive self-protection reflex" and "a defensive reaction that seeks to maintain the primacy of one's internal configuration in the face of an environment perceived as threatening" (Shaules 2014, p. 83).

Learning a new language means one's usual way of expressing oneself must be put aside or suppressed. Within traditional Second-Language Acquisition (SLA), however, such cognitive adjustment is often discussed simply in terms of linguistic "interference" (Ellis 2008). This refers to linguistic patterns in the L1 getting in the way of using the L2. Such a view looks at language learning primarily in terms of the mental processing of grammatical structures—something that presumably takes place in a purely mental space separate from other elements of self. This overlooks the psychological implications of disrupting normal psycho-cognitive states. Larsen-Freeman (2011) refers to these cognitive habits as a "neural commitment" to the L1. She points out that constructing new linguistic knowledge is not easy because "language learning is not just about adding knowledge to an unchanging system. It is about changing the system" (Larsen-Freeman 2011, p. 57).

Psychological resistance to change is deeply rooted in our evolutionary biology, and openness to novelty is not the default setting for most living things (Zajonc 2001). Like any organism confronted with a foreign stimulus, learners must defend themselves against perceived threats and remain open to potential benefits. Yet mental processes tend to be biased toward the familiar, a phenomenon sometimes called the *mere exposure effect* (Zajonc 2001). Research has found that we use different areas of the brain when reasoning about familiar and unfamiliar situations (Goel et al. 2004), and novel tasks use up mental resources, leading to cognitive strain (Baumeister et al. 1998; Kahneman 2011). Our mind also tends to be biased toward familiar in-groups (Amodio and Mendoza 2010; Amodio 2009; Sherif et al. 1961), and respond to

cultural difference in terms of threat (Derks et al. 2008). Research has even shown that we tend to find non-native speakers of our language less credible (Lev-Ari and Keysar 2010).

The notion of resistance is consistent with the idea that language use is intimately tied to deeply rooted cultural values, sense of self, and patterns of cognition (Agar 1994; Diaz 2013; Risager 2015). Learning a new language requires negotiating a new sense of self in intercultural contexts, and gaining awareness of cultural elements of the self and others (Kramsch 1993, 2000, 2015; Byram 2008; Byram et al. 2001). This is also consistent with a developmental view of intercultural understanding (Bennett 1986, 1993; Hammer et al. 2003). In this view, ethnocentrism, as a product of human evolutionary psychology, is the normal starting point for cross-cultural encounters—although it's not desirable, it is natural. Broadly speaking, then, a deep learning approach reminds us that negative attitudes toward language learning don't represent a failure on the part of the students. They are a natural response to the foreignness learners are confronted with.

## 6.7 Resistance, Engagement, and Emergent Motivation

Seeing language learning as a form of intercultural adjustment provides a new perspective on motivation. We commonly think of motivation as internal to learners. We speak of it sometimes as a state of *being*—Hana *is* very motivated—or as a quality that students have or not. We even speak of *losing* motivation—we had it at one time, but no longer do. This internal quality is associated with the energy or desire to take action and learn. Indeed, the etymology of the term motivate is the Latin *movere*—to move; motivation makes us move. An unmotivated learner, in this view, is passive and exhibits little motive energy. Thus, educators speak of finding ways to motivate their students (spark this proactive behavior) or lament that the learners are unmotivated (they lack this inner energy or desire). Implicit in this view is the idea that motivated learners are in an active state (they take action) whereas unmotivated learners are in a passive state (they don't take action).

An adjustment perspective, on the other hand, does not assume that the classroom is a psychologically neutral space, in which learners either have the energy to take action or not. Instead, it assumes that motivation is fundamentally a *reaction* to learning demands. Just as cultural learning is provoked by the demands of adapting to a foreign situation, language learning is a response to the demands placed on us by teachers, classrooms and, indeed, the foreignness of the language itself. That is to say, there is no neutral state in the classroom. Learners may respond with curiosity and openness to foreign patterns (*engagement*) and/or a defensive response (*resistance*). In this view, resistance toward language learning is the flip side of engagement—two opposing responses to the challenges of learning. Motivation, then, is thus neither internal nor external—rather it's an emergent property that results from the ongoing interaction between learner and environment (Csikszentmihalyi and Rathunde 1993; Sampson 2015).

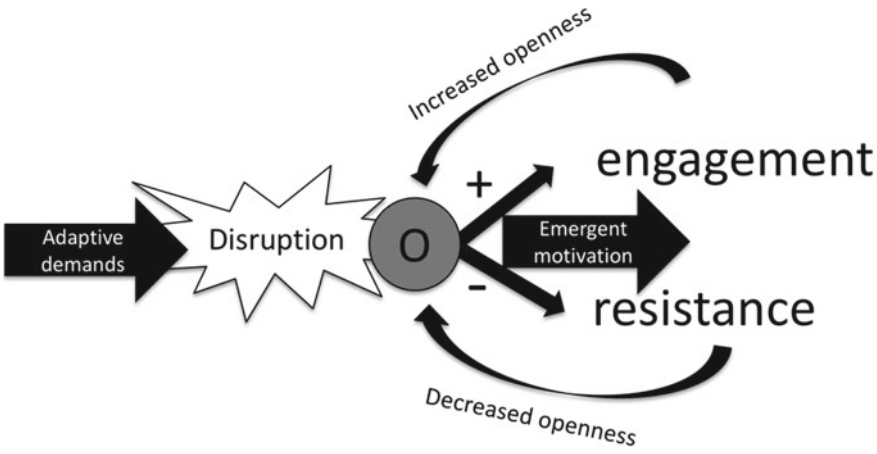


**Fig. 6.1** Engagement and resistance

This motivational dynamic is illustrated in Fig. 6.1. On the left, we see that an encounter with foreignness imposes adaptive demands on the learner—their normal socio-cognitive processes are disrupted. This is seen as psychologically demanding. Learners respond to these demands with more or less openness (O) to change—a willingness to engage with and integrate foreign patterns. This generates either engagement (an integration of foreignness) and/or resistance (a defensive exclusion of foreignness). It is proposed that resistance involves not only a negative affective response, but that it also acts as an inhibitory filter that gets in the way of learning. In this view, resistance results in feeling unmotivated, detached, resentful, and so on. When we experience foreignness in a positive way, we are open to change and may seek it out—which may be described as a learner being motivated.

Resistance is characterized by critical value judgments—a hesitation to accept a phenomenon as reasonable and normal (Shaules 2007). Among sojourners in foreign countries, these negative judgments are reflected in disparaging comments about cultural difference. Such criticism or denigration is often seen, however, as a simple reporting of the facts. The person who says "The people in that country are really primitive" believes this to be true in an objective way, and doesn't see the ethnocentric value judgment contained within. Similarly, learner statements about foreign language study being useless, or irrelevant to their lives, for example, may indicate something similar. Criticism of the foreign language, or of their own supposed lack of talent or effort, may serve as a psychological defense mechanism intended (unconsciously) to insulate the learner from the psychological demands of learning. Students who denigrate themselves, declaring that they are no good at language learning, may more simply be experiencing a natural psychological response to the foreignness of linguaculture learning.

In one study that used this paradigm, Shaules (2017) evaluated attitudes about learning English in Japan, and found that individual learners frequently had mixed

feelings about language learning—they were at odds with themselves. For example, on the one hand they felt that language study was important, wanted to be fluent speakers, and found the idea of being international attractive. At the same time, they felt a lack of motivation to study, felt they had achieved little relative to the efforts they had made, and were generally self-critical about their learning ability. This mixed state reflects two concurrent reactions to the foreign demands of language learning—they feel engaged with the idea of being an English speaker, but resistance to the deeper demands of studying and learning to use the language. Shaules argues that such mixed states are typical of foreign sojourners as well—as with the apocryphal quip "I like France, but I can't stand the French." This statement implies that there is surface acceptance/engagement (I like French wine, food, etc.) mixed together with deep resistance (I don't like French people's communication styles, values).

By looking at the psychology of language learning in terms of adjustment to foreignness, we are able to find commonality between language learning and the cultural adjustment processes. The resistance/engagement paradigm operates as a conceptual bridge for educators—a way to think about language learning as a part of a larger cultural learning process. This doesn't require a rejection of existing approaches to understanding language learning motivation. The notion of integrative motivation, for example—the idea that language learners are motivated by identifying with the target culture of the language they are learning—could be seen as similar to engagement (Gardner 2005). The idea that language learning involves adjustments to our sense of self is also common in motivation literature (Dornyei and Ushioda 2009). Much motivation literature, however, describes negative reactions to language learning in terms that imply psychological dysfunction, such as language anxiety (Zhang and Zhong 2012), or (un)willingness to communicate (Yashima 2002). The deep learning perspective, on the other hand, assumes that language and culture learning is psychologically demanding, and that resistance is a normal part of that process.

The demands of language and culture learning have real-world consequences. Many people fail in their foreign language learning, and outcomes depend heavily on the motivation, aptitudes, personality, experiences, and attitudes of each individual learner (Dornyei 2009; Dornyei and Ryan 2015). The deep learning perspective reminds us that language and culture learning involve adjustment to boundaries of the self and a degree of personal transformation. When we internalize a new domain of knowledge, we increasingly experience it as a natural part of who we are. When we master a foreign language, we gain more than an ability to perform the act of speaking—we *become* a speaker of the language. Similarly, when we have foreign experiences, we are doing more than gaining knowledge or skills, we are developing a more intercultural self—*becoming* a more cosmopolitan or international person. If, on the other hand, we resist the effort and change associated with development and transformation, we may experience *resistance,* a defensive psychological reaction that inhibits learning (Davis 2007; Shaules 2017).

**A developmental roadmap** The DMLL helps make sense of the powerful psychological responses provoked by deep language and culture learning. This chapter has discussed the psychological implications of a deep learning approach. This marks the end of Part 1, which introduces key themes that inform the DMLL. Part 2 shifts to a greater focus on theory, by putting the DMLL in the context of current language and culture scholarship, by exploring the connection between language and culture, and by describing the levels of the DMLL in more detail.

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# Part II
# Theory: The Developmental Model of Linguaculture Learning

Part II provides a description of the Developmental Model of Linguaculture Learning. It builds on the ideas that have been explored in the first five chapters, but is presented so that it can be read independently. Chapter 7 places the DMLL in the context of current language and culture learning scholarship. Chapter 8 explores ways in which the connection between language and culture is conceptualized. Chapter 9 argues that current research in neurolinguistics and cultural neuroscience can help us better understand the language-culture connection. Chapter 10 describes the starting assumptions of the DMLL. It then elucidates the purposes of the DMLL, and introduces dynamic skill theory, the key organizing principle of the DMLL. Chapter 11 explores in more detail the four levels of learning: encountering —experimenting—integrating—bridging.

# Chapter 7
# Language and Culture Pedagogy


**Abstract** This chapter reviews literature related to culture in foreign language pedagogy, and describes what sets the DMLL apart from current approaches. It argues that while consensus is emerging about the importance of culture in language learning, existing approaches can be difficult to put into practice. They tend to be additive—cultural learning is seen as something that needs to be accomplished in addition to language learning. Goals tend to center on abstract notions that are hard to relate to day-to-day language practice, and they often do not make clear a developmental progression that can be related to foreign language learning. The DMLL is argued to help resolve these dilemmas. This chapter introduces dynamic skill theory, and argues that it can serve as a unifying framework to understand both language and culture learning pedagogy.

## 7.1 Approaches to Language and Culture Pedagogy

In recent years, there has been an increasing consensus that culture should be an important part of foreign language pedagogy (Byram et al. 2002; Byram and Parmenter 2012; Byram et al. 2017; Liddicoat and Scarino 2013). Many educators understand that cultural knowledge and insight is necessary to use a foreign language well, that language learning can lead to meaningful intercultural experiences, and that there is a need for greater intercultural understanding in a world marked by increasing conflict and division. Putting this insight into practice, however, can be a challenge. It's easy to get the impression that something is missing from foreign language pedagogy—that we need cultural learning goals *in addition to* language learning goals. From this perspective, cultural learning represents a new dimension of learning to incorporate, a new set of skills to be practiced, or a new form of understanding to focus on.

This *additive approach* can be found in much language and culture scholarship. Foreign language pedagogy has seen an evolution in learning goals. In the past, it centered largely on notions of *linguistic competence*—the ability to use language well. When this was found inadequate, learning goals were expanded, and increasingly talked about in terms of *communicative competence* (Canale and Swain 1980;



J. Shaules, *Language, Culture, and the Embodied Mind*,
https://doi.org/10.1007/978-981-15-0587-4_7

Canale 1983; Celce-Murcia et al. 1993; Hymes 1966)—the ability to use language effectively and appropriately in context. In recent years, however, learning goals have been expanded once again, and are increasingly talked about in terms of *intercultural competence* in the context of globalization (Alptekin 2002; Byram et al. 2001, 2002; Byram 1997, 2008; Kelly et al. 2001; Kramsch 2002, 1993, 2015). Byram (2002) speaks of the need to:

> give learners intercultural competence *as well as* (emphasis added) linguistic competence; to prepare them for interaction with people of other cultures; to enable them to understand and accept people from other cultures as individuals with other distinctive perspectives, values and behaviours; and to help them to see that such interaction is an enriching experience. (p. 10)

Byram's use of the words *as well as* reflects this additive approach—one that implies that previous learning goals have not been replaced, so much as supplemented.

Byram (Byram 1997; Byram et al. 2001; Byram and Parmenter 2012), conceptualizes this expanded set of learning goals in terms of intercultural communicative competence, which consists of communicative competence, (described as linguistic competence, discourse competence, and sociolinguistic competence). To this, he adds intercultural competence, which he describes in terms of skills (interpreting and relating, discovering, and interacting), knowledge of social groups and interactions, critical cultural awareness (the ability to evaluate different perspectives), and attitudes (e.g., curiosity and openness). These broad categories are broken down further, into nearly 30 sub-competencies. Byram's work reflects the heightened profile of culture in language education, and succeeds in drawing attention to the complex, multidimensional nature of intercultural abilities. His work has led the way in helping intercultural competencies become an explicit goal of educational policymakers (Bianco et al. 1999; Byram and Parmenter 2012; Byram 2008; Byram et al. 2002; Cunningham and Hatoss 2005; Risager 2006; Uchibori 2014; UNESCO 2003). This has, in turn, led to a growing body of work that seeks to bring an expanded set of learning objectives into the foreign language classroom (Alptekin 2002; Andersen et al. 2006; Byram 1997; Bianco et al. 1999; Byram et al. 2001, 2002; Corbett 2003; Crozet and Liddicoat 1999; Diaz 2012, 2013; Liddicoat and Scarino 2013; McConachy 2018; Risager 2015, 2007). As language teachers take on the challenge of encouraging intercultural understanding, it seems they are heaping more on their pedagogical plate than ever.

## 7.2 An Ambitious Undertaking

It's worth reflecting on the challenges of setting such ambitious and complex cultural learning goals. Most simply, an additive approach risks creating an increasingly long menu of learning objectives—Byram's taxonomy, for example, is elaborated in great detail. This sheds light on the complexity of cultural learning, but also makes it easy

to lose sight of the forest for the trees. It would be difficult, for example, to deal with every goal mentioned within one course of study. In addition, many intercultural learning objectives are defined using terms (e.g., critical cultural awareness, global citizenship) that are both abstract and idealized—something akin to a moral education for a global age. Such aspirational ideals can seem far away from day-to-day language practice, or the goals that learners have for themselves (e.g., to remember vocabulary, to speak fluently, to improve listening skills). This means learners must not only learn irregular verbs and practice dialogues, but they must also do so while reflecting on intercultural understanding and gaining a more global sense of ethics (Singer 2002).

This wide range of learning goals—from concrete to abstract—makes it even more difficult to overcome the gap between ambitious culture learning objectives, and the nuts and bolts of classroom practice. Diaz describes three major stumbling blocks to overcoming the "difficulties of realizing this vision in everyday practice" (Diaz 2013): conceptual, relational, and developmental. The conceptual stumbling block refers to limitations to the ways in which intercultural competence is conceptualized. The relational stumbling block refers to a lack of clarity about how different elements of intercultural competence relate to each other. The developmental stumbling block refers to a lack of a clear sequence for how intercultural competence is developed over time—the outcome is defined, but not the steps that are needed to reach this state. In short, while it's relatively easy to agree on a need for intercultural competence in language learning, it can be difficult to define learning goals in a way that can be put into practice.

These challenges are compounded by a more fundamental difficulty—connecting cultural learning goals to our understanding of language learning processes. Language learning itself is so complex that even specialists do not claim to have successfully modeled learning processes. On the contrary, despite an enormous body of research into second-language acquisition, "all commentators recognize that … we have not yet arrived at a unified or comprehensive view of how second languages are learned. … No single theoretical position has achieved dominance and new theoretical orientations continue to appear" (Mitchell et al. 2013). Increasingly, the processes involved with language learning are seen as being so complex as to defy linear models and cause-and-effect reasoning (Larsen-Freeman 2011, 2006). Because of this, there is no single methodology or pedagogy that can be declared superior to all others (Lightbown and Spada 2013; Mitchell et al. 2013; Nation and Macalister 2010; Richards and Rodgers 2014). A unified understanding of language and culture learning processes must first grapple with the complexity of language learning itself.

Recent scholarship has seen attempts to relate intercultural understanding more closely to language learning. McConachy (2018) draws on the notion of pragmatic awareness and argues that it is "possible to create opportunities for meaningful learning even with conventional materials such as coursebooks" by getting language learners to "analyze and reflect on their interactional experiences"(p. 9). Liddicoat and Scarino argue against the notion of finding a *method* for integrating language and culture learning. They argue for the adoption of an *intercultural perspective* toward language teaching and learning (Liddicoat 2005; Liddicoat and Scarino 2013), one in

which the cultural self-awareness of the language teacher is central. This implies that there is "no ready-made, one-size-fits-all way of developing intercultural capabilities through language education" (Liddicoat 2013) (p. xii) and that teachers must find an approach that suits their context, and their understanding of language and culture learning processes. They identify principles they see as preconditions for teaching and learning languages from an intercultural perspective. These include: *active construction*, the idea that both language and culture learning involve an active process of engagement, interpretation and meaning-making; *making connections*, the idea that language and culture are learned and experienced in relation to others as an experience with the new; *social interaction,* the recognition that language and culture learning is fundamentally interactive, and involves a continuous process of negotiating meaning; *reflection,* the recognition of a need to become aware of how we think about and learn a language, and additionally, culture; *responsibility*, the recognition that learning depends on a learner's attitudes and values, including a responsibility to develop intercultural sensitivity and understanding. They describe intercultural learning in terms of four processes—*noticing*, *comparing*, *interacting,* and *reflecting*—that learners engage in as they experience language, culture, and relationships. The classroom pedagogy they describe centers on designing classroom interactions and experiences, and an expanded view of learning tasks.

The work of Byram and others has raised the profile of culture in language pedagogy, and created a sense of mission in culture and language pedagogy. It has provided a set of goals to work towards. Current scholarship seems increasingly focused on finding new perspectives and putting idealized goals into practice. Diaz's work identifies many of the challenges of integrating language and culture pedagogy. The work of Liddicoat and Scarino helps clarify the foundational principles for an integrated view of language and culture learning. It also provides a way to approach pedagogy in terms of learning processes, and relates cultural learning to the language learning process, including differing metaphors that can be used to understand language learning. Work by McConachy and others provides approaches to classroom practice that integrate cultural learning with language practice. It seems there is an increased consensus on what we are trying to achieve, and an increasing body of work that attempts to put these ideas into practice.

## 7.3 Developmental Models

Despite such progress, there are still big challenges remaining with current approaches to language and culture pedagogy. One key challenge is a lack of models that lay out a developmental progression of language and intercultural learning. That is, they do not provide a conceptualization of differing levels of intercultural learning as it relates to levels of language learning. We can track a learner's progress learning a foreign language, but it's hard to map that progress onto an understanding of levels of intercultural learning. In theory, an integrated, developmental learning model would make it possible to say that a given student, for example, has a high

degree of linguistic ability, but a lower level of cultural understanding. Or, perhaps a learner has limited linguistic ability, but a high level of intercultural understanding. Existing paradigms do not lend themselves to this sort of comparison.

The challenge of integrating a developmental understanding of language and culture learning has been articulated by Diaz (2013), who states:

> Translating the language and culture nexus, or in this case, linguaculture, into an incremental learning progression is challenging. The lack of developmental notions of linguaculture learning make it difficult to map a coherent, progressive path from ab initio, beginning levels—the largest in most language programmes—to advanced levels. (p. 34)

Diaz offers an approach to defining such a progression—one that revolves around the notion of reflectivity and perspective transformation. She proposes a hierarchy of levels of reflectivity consisting of four major categories—basic level of awareness; complex level of awareness; mega-cognitive level of awareness; epistemological level of awareness. These are said to lead from consciousness to a critical consciousness as it relates to languaculture. She relates this ability to the concept of a 'dynamic in-betweenness' in which speakers can "consciously manage their alternative frames of languaculture reference in intercultural encounters."

Diaz connects cultural learning goals directly to language practice. Drawing on work by Liddicoat et al. (2013), she describes a process of sociocultural acquisition, in which learners develop an understanding of the practices in the target culture. As learners gain linguistic proficiency through interaction with target language speakers, they also can gain sociocultural proficiency and higher levels of linguaculture awareness. By raising learners' reflective awareness in foreign language learning contexts, this process can be facilitated. Diaz describes language and culture learning as an interrelated process of increased awareness that contributes to linguistic fluency that develops in conjunction with cultural fluency and intercultural awareness. In this view, language practice with target language speakers serves as a form of intercultural learning.

The current work shares Diaz's conviction that language practice can constitute a form of cultural learning. It also shares a concern for defining a developmental progression of linguaculture learning. It differs, however, in its approach to conceptualizing levels of learning. Diaz conceptualizes intercultural learning in terms, such as consciousness and reflectivity, that are hard to relate to the developmental progression of language learning. Consciousness and reflectivity are abstract qualities that can seem far removed from the knowledge and skills orientation of many language classes. This work takes a different approach. It describes both language and culture learning as being fundamentally similar—they both involve the embodiment of dynamic complex systems of meaning. This deep form of learning results in intuitive understanding, insight, fluency, and the mastery of new linguistic and cultural domains. What is needed, then, is to define a developmental paradigm that can help us understand this deep learning process.

## 7.4 Linguaculture Learning

Despite the persistent gap between ideal outcomes and classroom practice, a more integrated understanding of language and culture is increasingly accepted among language teachers. Reflecting this, the idea of *linguaculture/languaculture* has become increasingly influential in the field of foreign language education (Diaz 2013; Risager 2006, 2007, 2015). Risager (2006, 2007, 2015) proposes a detailed conceptualization of languaculture (or *linguaculture*) that is informed by a sociolinguistic perspective. She is interested in issues of pedagogy in the context of globalization. She describes three interrelated perspectives of languaculture (languaculture in linguistic practices, in linguistic resources, and in linguistic systems), each of which has three dimensions: semantic and pragmatic dimension, the poetic dimension, and the identity dimension. This provides a useful taxonomy for understanding the multidimensional implications of conceptualizing language and culture in a unified way.

Risager (2007) proposes that language and culture pedagogy should be informed by a view of linguaculture as complex and dynamic, rather than as closed national systems. Diaz (2013) uses Risager's conceptualization as a starting point for her *languaculture pedagogies*. Her focus is on cultural differences that affect verbal interaction and relationships, and she proposes a taxonomy with seven steps of languaculture awareness. Like Risager, she takes linguaculture/languaculture as a starting point for foreign language pedagogy—one that makes explicit the starting assumption that language and culture need to be considered as a unified whole. Such terminology encourages educators to go beyond general statements about the strong connection between language and culture, and find ways to operationalize them.

This work adopts the term linguaculture as a way of drawing attention not only to the integrated nature of language and culture, but also to the psychological demands of language and culture learning. The linguistic and cultural patterns we are exposed to growing up influence us in fundamental ways. The first language we speak becomes part of the socio-cognitive architecture of our mind, just as the cultural communities we are raised in shape our mental processes, identity, and worldview. This implies that both language learning and deep culture learning are disruptive to existing patterns of cognition and self. Fundamentally, then, linguaculture learning requires a deep-rooted process of change and adjustment.

## 7.5 In Search of an Integrated, Developmental Model

This work takes on a challenge central to an integrated language and culture pedagogy—the creation of a model that situates language and culture learning within a single developmental framework. Ideally, it should allow us to think about language and cultural learning as interrelated domains. That is to say, they can be considered separately if necessary, but also can be seen in relation to each other. By way of example, math and science can be treated as separate subjects, yet they are

ultimately interrelated—math is, so to speak, the language or the yardstick of science—and thus math and science can be taught using integrated pedagogy. Arguably, science is the broader learning category, since math can be taught separately from science in abstract form, whereas the formal learning of science requires knowledge of quantification and measurement that is allowed for by mathematics. While this may not be a perfect comparison, it demonstrates that two domains can be closely interrelated—able to be conceptualized as separate, or as an integrated whole. Creating an integrated developmental model for language and culture learning would provide a similar flexibility—the choice to focus on language and culture separately, or together, as needed.

A primary stumbling block to an integrated view is contrasting notions of language and culture learning. Language learning is often conceptualized as a form of *acquisition*—a taking-in of knowledge or the accumulation of communicative skills. The field of second-language acquisition has this assumption built into the very terminology that defines the field. Cultural learning, on the other hand, is most typically discussed more in terms of *awareness*—some higher level critical, cognitive, or reflective ability that leads to intercultural competence. Learning processes are typically conceptualized in ways that do not easily map onto the developmental progression of language learning. In other words, while we may have a sense for how learners develop linguistic ability, and for how they can develop intercultural awareness or understanding, it's still hard to see how these two processes relate to each other. This is the core dilemma that this work seeks to address.

## 7.6 Dynamic Skill Theory and the DMLL

Finding a single conceptual framework that can incorporate both language and culture learning requires finding a broader view of learning. This work finds this in *dynamic skill theory* (DST), a neo-Piagetian approach to describing learning in multiple domains. DST was developed as a way of understanding the developmental processes of childhood, but can be applied to complex skills more generally. Put simply, DST helps us understand learning in terms of complexity—the way that simpler knowledge self-organizes at higher levels of sophistication. A fundamental insight of DST is that complex knowledge is not built up in a linear process of accumulation. Rather, simpler elements of knowledge are mapped together, and self-organize, emerging as a stable yet dynamic system that functions in a way that is greater than the sum total of its parts. This is similar to the way that internalizing the rules of a card game, such as poker, for example, allows us to play the game with others—to *become* a poker player and to express ourselves through the medium of poker. The game of poker emerges from knowledge of the rules and the playing of the game.

The four-level structure of the DMLL is adapted from DST. Each level represents more sophisticated levels of socio-cognitive processing and embodied complexity as conceived through the conceptual lens of DST. These are represented at the bottom

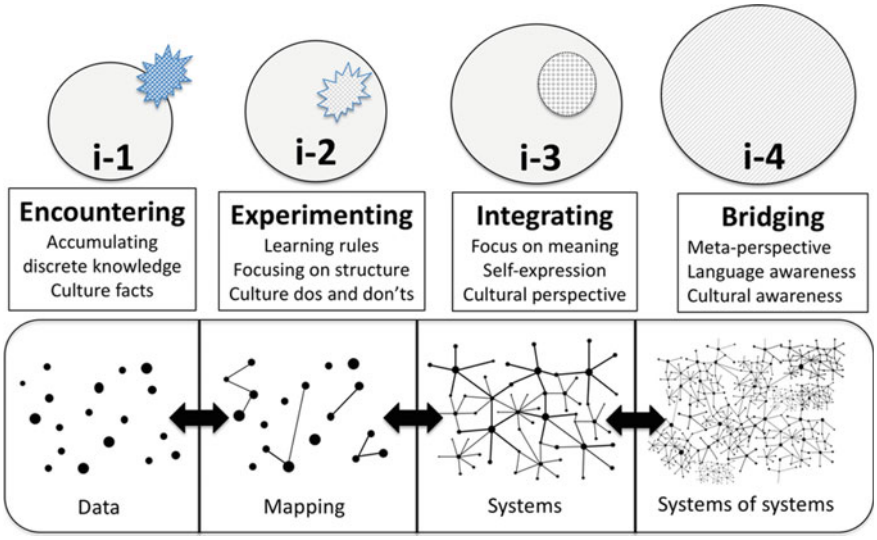


**Fig. 7.1** The developmental model of linguaculture learning

of in Fig. 7.1. The lowest level of complexity (i-1) entails learning discrete data—individual bits of knowledge or single skills. The next level of learning involves (i-2) mapping—making mental connections such that more complex knowledge structures emerge. The third level of learning (i-3) involves a dynamic systems-level understanding—when knowledge comes together in a holistic, creative form. The fourth level of learning (i-4) involves a systems-of-systems understanding that creates bridges between different domains and engages more meta-level processes. According to DST, these four levels can be used to understand learning generally, not simply children's development. This makes DST a flexible theoretical starting point for an integrated model of language and culture learning.

The levels described by DST describe all complex skills—abilities for which the whole is greater than the individual parts. Both language and cultural ability are complex skills in this sense—they are systematic, yet creative domains which are experienced intuitively once they have been integrated into our socio-cognitive systems. Thus, the four levels of the DMLL can act as a framework for making sense of both language and culture learning—bringing them together under one rubric. The DMLL assumes that at these deeper levels of understanding, linguistic and cultural knowledge are closely related. A more detailed argument to this effect can be found in Chap. 8. The levels of the DMLL are described in greater detail in Chaps. 10 and 11, and application of these ideas into the classroom are discussed in Chaps. 12–14.

## 7.7 An Intercultural Adjustment Perspective

The developmental levels of the DMLL are grounded in an understanding of neural networks, but it would be reductionist to describe learning solely in relation to changes within the brain—in effect, it's not the brain that learns, it's people that learn. This is why the four levels of the DMLL are represented visually in two ways: (1) as increasing levels of complexity (the bottom portion of Fig. 2.1), and (2) in terms of how the learner experiences the learning process (the four circles at the top of Fig. 2.1). To understand the phenomenology of language and culture learning, the DMLL draws on an intercultural adjustment perspective. In brief, this assumes that any time we learn something new we are changing ourselves in some way. The four levels of the DMLL represent the increasing sense that previously foreign linguaculture patterns are becoming an integral part of the self. What is first experienced as external and foreign, gradually becomes part of the architecture of the mind, the territory of the self, and a medium for self-expression.

The DMLL draws on an intercultural adjustment perspective. Intercultural adjustment refers broadly to the psychological challenges of adapting oneself to a foreign environment, most typically through a stay in a foreign country (Matsumoto et al. 2006). Scholarship in this area largely focuses on the stresses and coping mechanisms of intercultural adaptation (Wong and Wong 2006); an understanding of the adaptation process (Berry 2005; Kim 2001a; Lewthwaite 1996; Shaules 2007; Ward et al. 1998, 2001); how intercultural experiences can lead to intercultural awareness (Bennett 1986; Paige 1993); the effects of such adjustment on identity and sense of self (Bennett 1993a, 1998), and issues of globalization (Friedman 1994). Such scholarship is typically intended to inform intercultural education and training, to help sojourners better deal with adjustment stresses, and to find ways to identify and measure the qualities that are associated with successful sojourns (Matsumoto et al. 2006, 2001).

The scholarship of intercultural adjustment has not been a major source of inspiration for language educators. Intercultural adjustment, after all, often centers on the challenges of foreign sojourns. It is associated with terms such as *culture shock* and coping with the stresses of life in a foreign country (Furnham and Bochner 1986; Goldstein and Smith 1999; Matsumoto et al. 2006; Oberg 1960; Ward et al. 2001). Much foreign language education, on the other hand, takes place in L1 cultural environments, e.g., Chinese speakers learning English in China, or Russian speakers learning French in Moscow. Many foreign language learners may never have used the L2 outside of the classroom. Unless language teachers are teaching immigrants a local language, or preparing students for a trip abroad, intercultural adjustment challenges may appear to be something that is off in the future. The process of learning a foreign language in the classroom, and the stresses of intercultural adjustment, can easily be seen as separate challenges.

The intercultural adjustment perspective reminds us that involvement with a new cultural community has psychological consequences. A central concern of such scholarship relates to psychological demands placed on us by foreign experiences.

For example, Berry (1997) (Berry et al. 1987) describes differing psychological reactions to the demands of acculturation, including *assimilation*, *integration*, *separation,* and *marginalization*. Kim (2001b) speaks of intercultural transformation that results from an ongoing process of adjusting to the host environment. This process is affected by factors such as host conformity pressure, or the individual's preparedness for change. Shaules (2007) describes a process of *resistance*, *acceptance,* and *adaptation* to foreign experiences—each of which can be relatively more surface or deep. What all of these conceptualizations share is a concern for the psychological impact of foreign experiences.

## 7.8 Transformational Learning

The DMLL assumes that both language and culture learning are transformational. In educational psychology, saying that learning is transformative has been referred to as "a deep, structural shift in the basic premises of thought, feelings, and actions. It is a shift of consciousness that dramatically and permanently alters our way of being in the world" (Morrell and O'Connor 2002) (p. xvii). In this work, the notion of transformation refers more narrowly to a change in how the foreignness of new linguaculture patterns is experienced. The negative attitudes of resistance can inhibit learning, or engagement can open us up to a new sense of self as a foreign language speaker or a cultural bridge person. Transformation does not mean that one becomes a different person—rather, the way one experiences a new language or culture changes. As we gain intuitive mastery of a new domain, it becomes a part of us. We go from learning tennis to being a tennis player; we go from learning to cook to being a chef; we go from making lesson plans to being a teacher. Transformation refers to this process of going from doing, to becoming, to being.

In general terms, of course, it's easy to agree that language learning and foreign experiences can be disruptive, and at times transformational. The stresses and rewards of both are well known. What's less clear, however, is: (1) how such a perspective can inform our understanding of SLA, (2) how it can lead to a more unified view of language and culture learning, and; (3) how it can inform language and culture pedagogy. There's a large gap between the general proposition that language and culture learning involves adjustment, and a more fully articulated model of language and culture learning. The overall goal of this work is to fill that gap.

**The relationship between language and culture** This chapter has put the ideas in this work in the context of existing language and culture pedagogy. The DMLL builds on the insights of existing scholarship, and is in broad agreement with existing approaches to intercultural education. What's new in this work is the neurocognitive perspective, the focus on language learning as a form of intercultural adjustment, and an understanding of deep learning as informed by dynamic skill theory. The DMLL attempts to describe, in integrated form, two processes that are often conceptualized

separately—(1) mastering a foreign language, and (2) gaining intercultural understanding and insight. This premise—that language learning and culture learning are fundamentally similar processes—rests on this neurocognitive view of language, meaning, and mind. The following chapters provide the theoretical foundations for this perspective, starting with a core issue explored in the next chapter—the relationship between language and culture.

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# Chapter 8
# The Language and Culture Debate


**Abstract** This chapter explores approaches to understanding the relationship between language and culture. Although language and culture are commonly understood to be related, they are traditionally seen as different domains of knowledge. Common conceptualizations of culture are introduced, with an emphasis on recent work in the area of culture and cognition. A definition of culture as it is used in this work is given. This chapter then discusses different approaches to viewing the relationship between language and culture, including the idea of linguistic relativism. Debates about linguistic relativism are said to often be far removed from the practical concerns of language teachers. The notion of linguaculture—the idea that language is culture bound—is also introduced. This chapter then explores the idea that shared meaning is central to both language and culture. This chapter lays the groundwork for the following chapter, which proposes that neurolinguistics and embodied simulation theory provide new insight into the interconnection between language and culture.

## 8.1 Culture for Language Teachers

For language teachers, an understanding of the language–culture connection is typically grounded our own experiences and interests. If we became fascinated by German after visiting Vienna, we will want to share that experience when we teach German. We also look at the language–culture connection through the filter of our teaching situation. If we prepare students for a stay abroad, we will want to help them survive and thrive in that foreign land. Sometimes, learners are highly interested in foreign customs, people, and places. Sometimes, they are studying a foreign language as a required subject and have little interest in cultural exploration. For teachers of a language used as a lingua franca—such as international English—language can seem quite separate from culture. Or we may be teaching the local language to immigrants who are struggling to make sense of their new cultural home. How we think about the language–culture connection depends on our experience and situation.

While this may meet our immediate pedagogical needs, it's also worth taking a step back and reflecting more deeply on the language–culture connection. Language



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and culture are central to what it means to be human; both operate at deep levels of mind and self; they mediate our relationship with people and society; they touch upon and reflect our identity. All of this, however, often escapes conscious attention. We take language and culture for granted; we understand it but cannot explain it. We effortlessly use our L1, for example, yet can't describe its structures. We may find ourselves falling back on our intuitive knowledge, explaining "Well, that's just the way we say it." Similarly, we don't notice our own cultural programming until we find ourselves a fish out of water abroad, surprised by the many cultural differences we notice, unable to read intentions, inadvertently causing offense, or simply being at a loss as to how to act. The importance of reflecting on language and culture lie in this contradiction—it's so central to the human experience that we scarcely notice it. Language and culture are intertwined threads that are woven into the very fabric of perception, communication, and community.

Unfortunately, language and culture do not lend themselves easily to conceptual analysis. Even considered separately, language and culture are enormously complex phenomena and resist rigid classifications or simple cause-and-effect reasoning. It's easy to get lost in detail—a linguist may write a doctoral dissertation on the usage of "the" and "a", and an anthropologist may spend a year studying the culture of a hockey team. Yet, pulling back and viewing language and culture from higher levels of abstraction also has its pitfalls. Such complex phenomena can be looked at from any number of perspectives, each with their own merits—there's no single, all-encompassing point of view that will lead us to some ultimate, objective truth about language and culture.

Despite these challenges, exploring these issues increases our understanding of the everyday experience of language and culture, which, in turn, informs everything we do as educators. It is with this in mind that this chapter provides some basic building blocks for a more clearly articulated understanding of the language–culture connection. It starts with a brief overview of the complex usage of the word *culture*, including a look at emerging insights from cultural neuroscience. We'll look at ways in which the language–culture connection has been conceptualized, including debates about linguistic relativity. We'll also explore the idea that culture is an embodied system of shared meaning that is represented through language. We'll look at how the word *linguaculture* has been used to emphasize this sense of language and culture as two sides of the same coin. We will touch upon complexity theory as a way to describe the complex and fluid nature of linguaculture. This chapter acts as a review of current thinking, while the next chapter explores language and culture from the neurocognitive and psychological perspective.

## 8.2 The Language and Culture Dichotomy

Analyzing the language–culture relationship can easily become a forced-choice exercise. If we think of language as one discrete phenomena and culture as another, we are forced to choose between competing starting points for analysis. A linguistic

perspective, for example, puts culture in the background and looks carefully at the systematic properties of language. An anthropological perspective, on the other hand, promotes culture to the foreground while demoting language to something that carries or reflects culture. The tendency to get caught in this dichotomy is so strong that there is little scholarship that focuses explicitly on the *connection* between language and culture. This has led to what Sharifian (2015b) has called the "immature development of a unified sub-discipline for the study of language and culture" (p. 3). Scholarship tends to be fragmented, and includes the complementary disciplines of linguistic anthropology and cultural linguistics. Both look at the relationship between language, meaning, and social life (Chen et al. 2009; Duranti 2001; Sharifian 2015a), with ethnolinguistics looking particularly at the language and perception of different ethnic groups (Goddard and Ye 2015; Gladkova 2015; Leavitt 2015a). Language and culture is also studied in relation to specific topics, such as gender (Tanaka 2015), translation (Armstrong 2015), intercultural communication (Hua 2011; Sharifian and Jamarani 2014; Wolf 2015), globalization (Angouri and Miglbauer 2014; Kirkpatrick 2015; Risager 2006), second language learning (Kramsch 2015), and language and culture pedagogy (Byram et al. 2002; Byram 1987, 2008; Corbett 2003; Diaz 2012, 2013; Kramsch 1993).

This fragmented literature highlights the need to find a starting point for examining the language and culture connection. This work focuses narrowly on the relationship between language and culture from the point of view of language learners, as well as from a neurocognitive perspective. It does not focus on broader issues of educational policy, sociopolitical issues, multiculturalism, or the complexities of cultural identity. It seeks to make sense of the competing ways that we use basic terms. With this in mind, we will look at how culture is typically conceptualized, and how linguistic meaning reflects the shared experience and perceptions within cultural communities. To start, we will look a bit more closely at a word we use every day, yet may struggle to define clearly—culture.

## 8.3 The Contentious Concept of Culture

The word *culture* is a contentious one, with whole books having been dedicated to dissecting it (Eagleton 2000; Kroeber and Kluckhohn 1952). At the core of many definitions of culture are two critical elements: (1) culture is learned (it's not an inborn trait nor genetically determined) and (2) culture is shared among members of a community. Such a view goes back at least to the late nineteenth century and the work of Edward Tylor (1871), a foundational figure of the field of anthropology. At the time, this articulation of culture was a highly progressive notion. It acted as an important counterweight to then common ideas of biological determinism. Anthropological pioneers such as Boas (1928), Mead (1961, 1995), and Benedict (1934, 1943) argued that culture shapes behavior in many ways, and that human nature was much more flexible than previously thought. At the time, there was great

interest in the exotic customs of faraway peoples, and a belief that studying culture could teach us fundamental lessons about human potential.

These days, the term culture is used in ways that are descendants of this primal definition. It is sometimes conceived of as collective esthetic or creative accomplishments—often in the form of art, food, architecture, clothing, ceremonies, and so on. This is sometimes referred to as *big "C" culture*, *visible,* or *explicit culture* (Trompenaars and Hampden-Turner 1998) with an etymological association of cultivation of the individual. The term *explicit culture* refers more broadly to the concrete products that can be seen, heard, or read about—including everyday objects, ceremonies, and so on. Explicit culture often involves *reification*—when a concrete object or behavior represents an immaterial quality. Thus, a white wedding dress may represent purity; a statue may have religious significance; a suit and tie may represent business, and so on. Properly speaking, explicit culture does not refer to culture itself, but rather to the *products* of culture that have shared significance for a community.

Culture is also found in the behaviors of everyday life. Travelers speak of "experiencing the local culture" when they sit in a café or visit someone in their home. This *small "c" culture* or *implicit culture* typically refers to the norms, values and hidden assumptions that underlie the explicit behaviors of a cultural community. Cultural norms—such as greeting store clerks in France by saying *bonjour monsieur*—are expectations about how things should be done. Such norms, in turn, reflect deeper cultural values—for example, the importance of *politesse* (politeness) in French society more broadly, and its roots in its role in creating egalitarian interaction. These values are in turn underpinned by taken-for-granted assumptions about human relations, such as the idea that politeness functions to reinforce social solidarity, because it provides a respectful way to recognize the inherent worth of every individual. Such ideas are only sometimes articulated, and may be largely unconscious. They are powerful nonetheless, however, precisely because they are so foundational.

The values and assumptions of implicit culture can be found in any cultural community, large or small. When we refer to the *company culture at Google* or a *culture of impunity* that develops among elites, we are also referring to this largely implicit side of culture. This usage emphasizes the role that culture plays in framing interaction and shaping behavior. It implies a set of community standards that guide expectations about what is normal in a given situation, what behavior is considered polite or rude, and what shared values are considered important. The notion of implicit culture doesn't imply that people all act the same—rather, there are shared standards by which to interpret behavior and to choose how to act. We express our individuality in the context of culture. In any given community, some people will break convention or be contrarian. They do so, however, knowing how their behavior will be interpreted. Thus, implicit culture doesn't so much control us as it provides an intuitive sense of what people will think of a given action. That is to say, culture relates not so much to whether people act in the same way, but in the fact that they have shared understandings of what things mean (Bennett 2013).

The word culture is also used to refer to the communities that we feel a part of and identify with. This usage can be heard in statements such as "I'm proud of my

culture" or when we apply cultural labels, as in "I'm a Navajo", or when someone proclaims "I'm not Spanish, I'm Basque." Such usage is highly fluid, because everyone participates in any number of communities. Indeed, the idea of culture as something that binds groups together into discrete, separate communities can seem anachronistic. In traditional societies, cultural groups lived more separate lives with relatively clear social boundaries. In our globalized world, this sense of clearly and unquestioningly belonging to a particular cultural group is being superseded by a more fluid, overlapping of non-geographic communities (Agar 2002; Lash 2010; Risager 2006; Shaules 2007a; Sparrow 2000). Such identity spaces need not correspond with geography—gamers, for example, may share a cultural space that is entirely virtual. Globalization has sparked a lot of interest in culture as a form of negotiated identity (Adler 1977; Burke and Stets 2009; Friedman 1994; Sparrow 2000).

For educators, there's an important distinction between (1) culture as shared norms, values and assumptions and (2) culture as a form of identifying, labeling and belonging. The former represents the "rules of the game" in a particular community—expectations about how to act rooted in cultural worldviews. Learning how things work in a new language and in foreign settings is a core challenge for language learners. It is closely tied to using language appropriately in context, and understanding the perspective of the speakers of the target language. The latter understanding of culture—as a form of identification—is also important, but is related more to how we label ourselves and others. Learners need to avoid overly simplistic labels—e.g., "the Russians"—and understand that there is wide individual variation within cultural communities. They also may have to deal with being labeled, perhaps stereotypically, as representatives of their own country or cultural community. Ultimately, culture in the context of language learning relates to learning the "rules of the game" linguistically and culturally, and also to learn to navigate the cultural labels that we use to describe ourselves and others.

## 8.4 Culture and Cognition

Increasingly, culture is being studied from the perspective of neuroscience, cognition and the brain (Chiao and Ambady 2007; Chiao 2009; Dominguez et al. 2009; Han and Northoff 2008; Han et al. 2011; Markus and Kitayama 1991; Nisbett 2003; Shaules 2014; Warnick and Landis 2015). Having at least a passing familiarity with advances in this area is, arguably, important background knowledge for all language teachers. Important works include: Markus and Kitayama's (1991) exploration of cultural difference in cognition and identity; Nisbett's (2003) research into how culture shapes cognitive processes; and an expanding body of research on how social and cultural environment shape brain structures and cognitive function (Chiao and Ambady 2007; Chiao 2009). Technology that allows for mapping of cognitive activity has given rise to new ways to study cultural difference, and is showing that culture shapes cognitive processes in powerful, yet diffuse ways (Han and Northoff 2008). It has also highlighted the highly embodied nature of culture—that is to say, that social

and cultural factors shape brain structures, cognition, emotion, and identity, in ways that touch us at deep levels of the self (Shapiro 2014; Varela et al. 1995).

The picture that is emerging from this body of work is of cultural variation as a universal element of mental function. Mind is cultural by nature—shaped in fundamental ways by social and cultural patterns. Kitayama and Cohen (2007), for example, remark that "culture cannot be understood without a deep understanding of the minds of people who make it up and, likewise, the mind cannot be understood without reference to the sociocultural environment to which it is adapted and attuned" (p. XIII). The ability to speak our L1 is a good example of this nature + nurture view—our brain is sensitized to the linguistic input that surrounds us as we grow up, and acquiring our L1 is an integral part of the brain's natural developmental processes. Once acquired, however, our L1 is a built-in part of our cognitive and communicative operating system—it is as natural to us as walking and eating. In a similar way, our sociocultural environment shapes our cognition, emotion, and identity in fundamental ways. Humans are, so to speak, both linguistic and cultural to the core.

A thorough review of this body of work is beyond the scope of this chapter, but there are insights worth considering. First of all, neuroscientists don't argue extensively about definitions of culture. Culture is conceptualized quite broadly as sociocultural patterns in the environment that are shapers of, or are reflected in, neurocognitive structures and processes (Kim and Sasaki 2014; Kitayama 2013). That is to say, culture is conceptualized fundamentally as *patterns*. Those patterns are assumed to be dynamic and complex, as is seen in the dynamic complexity of cultural communities, as well as the dynamic complexity of cognitive structures found within a given individual. This means that culture is both *embodied*—it can be found within the individual—and *embedded* in the world at large. It is not a fixed or static quality, nor is there a contradiction between variation at the individual level and commonality at the group level. That is to say, sharing in a cultural community doesn't mean that everyone acts the same way. Or, to use a linguistic metaphor, each person uses language in a unique way, even as they follow broader patterns of language usage. Language and culture allow us both to share with others and express our unique qualities.

Another key insight of cognitive and cultural neuroscience is that cultural influences take place largely out of conscious awareness. Researchers are starting to identify cultural patterns that influence us deeply, even though we are not consciously aware of it. Culture has been shown to influence fundamental elements of self, including identity formation, emotion regulation, and cognitive processing (Han and Northoff 2008; Kurata et al. 2013; Markus and Kitayama 1991; Zhu et al. 2007). In addition, we are increasingly understanding that biases are built into the cognitive architecture of our minds—they are features, not bugs (Amodio 2009; Amodio and Mendoza 2010; Choi and Nisbett 1998; Dreu et al. 2011). This implies that going beyond ethnocentrism or prejudice is not easy, and requires more than a philosophical commitment to diversity or curiosity about cultural difference. This focus on culture and unconscious cognition is just now beginning to be applied to intercultural education (Shaules 2007b, 2010, 2014).

Another area of insight relates to the study of cultural difference. Traditionally, cultural difference has been studied by asking people directly—through questionnaires or interviews—about issues related to culture. Anthropologists, for example, have relied heavily on ethnography, while cross-cultural researchers often rely on statistical methods developed in the social sciences. The latter can be found, for example, in the cross-cultural research of Hofstede (1980, 1983) (Hofstede et al. 2010), or the database compiled by sociologists working on the World Values Survey (WVS 2014). A better understanding of culture and cognition, however, is introducing new research methodology into cross-cultural studies, including brain imaging (Han and Northoff 2008), implicit association testing (Amodio and Mendoza 2010; Danziger and Ward 2010), and social psychology methodology (Iyengar 2010; Nisbett and Cohen 1996; Nisbett 2003). Such work doesn't negate earlier research, but it helps us better understand the complexity of the issues involved. It can also help us dig deeper into the labels and categories that we use to talk about cultural difference, such as *individualism* and *collectivism* (Chiao and Blizinsky 2010; Oyserman et al. 2002). It helps us appreciate the complexity of culture as a phenomenon—something that cannot easily be reduced to simple categories or essential qualities.

## 8.5 Culture Defined for the DMLL

In the DMLL, the word culture refers broadly to *patterns of shared understandings that emerge from interaction within a community, and which provide interpretive frameworks for social interaction*. This conceptualization is constructivist and dynamic (Bennett 2013). It emphasizes culture as a medium through which people find shared purpose, negotiate outcomes, interact, and express themselves as individuals. In this view, individuality is expressed in the context of shared social expectations. Cultural communities exist at many scales of analysis, from groups of friends, to families, to ethnic groups, to national, or supranational entities. Communities are bounded in some way—there is a distinction between insiders and outsiders—although those boundaries can be complex, diffuse and overlapping. Culture is not seen as having essential qualities. Rather, like a living language, culture is a set of dynamic patterns that both emerge from and shape interaction. Just as no individual can embody the totality of a language, no individual can represent the totality of a cultural community.

Seeing culture as both emerging from and shaping interaction allows for a dynamic understanding of cultural learning. In the context of foreign language education, cultural learning involves learning from foreign experiences and coming to grips with the (largely implicit) cultural patterns encountered during the process of learning a new language. This involves making sense of the new language, and the contexts and communities in which that language is used. We use a foreign language in foreign situations, with people who have backgrounds that are foreign to us, and as part of a larger process of entering into new cultural worlds. And while other forms of cultural learning—negotiating cultural identity, avoiding stereotypes, learning facts

and figures about foreign places—are also important, within this work they are seen as complementing the adaptive process described by the model presented in this work.

## 8.6 Linguistic Relativism

Research into the connection between language and culture can seem far removed from the everyday concerns of educators. For example, the most influential framework for discussing culture as it relates to language has been the notion of *linguistic relativism*. This term is associated with the work of linguists Edward Sapir and his student Benjamin Lee Whorf (Carrol 1956). Just what is meant by this term, however, has been the subject of ongoing debate for the better part of a century (Kay and Kempton 1984). Inquiries focus on the relationship between language, thought, and culture. At issue is how the language we speak may affect the way we perceive the world. The *Sapir-Whorf* hypothesis is typically described as having a "strong" version—linguistic determinism, the supposition that thought is limited by or determined by the language that one speaks—and the "weak" version which says that language shapes thought in a more limited way. The points of contention are not always clear, but reflecting on them can help us think through basic questions about language, thought, perception, and culture.

Research in this area has produced a contentious exchange of claims and counterclaims, some arguing for a causal relationship between speaking a particular language and some cognitive or perceptual task. Research has focused on tasks such as classifying colors, categorizing objects, and making hypothetical interpretations, and has produced mixed results (Bloom 1981; Carrol and Casagrande 1958; Davies et al. 1998; Kay and Kempton 1984; Motluk 2002). The debate about linguistic relativism has tended to produce a binary for-or-against narrative about whether language does or does not influence people's thinking or perception. In the "against" camp are those who argue that thought exists independently from language. Cognitive linguist Steven Pinker, for example, declares that people "think in the language of thought" (Pinker 1995, p. 81), which he refers to as a universal *mentalese*. Other authors, however, argue that language acts as a sort of perceptual prism (Deutscher 2010) and see language as contributing to the development of abstract thought (Bickerton 2009).

Specialists are still arguing about linguistic relativism (Au 1983; Bloom 1981; Brown 2015; Chiu et al. 2010; Dedrick 2015; Gumperz and Levinson 1996; Leavitt 2015b). Kramsch (2014) argues that the virulence of such debates is understandable, given that Whorf and others were deliberately going against the grain of positivism and universalistic thinking. Leavitt (2015b) argues that this stark for-or-against dichotomy is a result of a misinterpretation (or misrepresentation) of Sapir and Whorf's work. He argues that Sapir and Whorf didn't believe that language determined or limited thought, but that their quotes, taken out of the broader context of their work, have been used to set up a straw man that can easily be refuted. He

sees their fundamental premise more broadly, as the idea that language and culture affect "meanings and orientations toward some aspects of experience" (p. 18) and that language reflects meaningful differences in thought and cultural worldview.

Recently, advances in cognitive neuroscience have provided new paradigms for asking these questions and may be taking us beyond binary debates about the effects of language on perception (Chiu et al. 2010). Language and culture are now being examined in terms of the cognitive processes involved (Chen et al. 2009; Nisbett 2011; Polzenhagen and Xia 2015; Robinson and Altarriba 2015; Yu 2015). This is part of a larger trend. It is exploring the enormous complexity of language and culture, rather than simply arguing the pros and cons of linguistic relativism.

## 8.7 Linguaculture—Language Is Culture Bound

In foreign language education, much of the scholarship related to language and culture focuses on defining learning goals in the context of globalization (Byram and Parmenter 2012; Kelly et al. 2001; Risager 2006). This has included increasing usage of the term *linguaculture* to refer to language and culture as part of a larger whole. The linguistic anthropologist Michael Agar uses this term when writing about ways in which language and culture reflect each other. Central to his work is the idea that language is culture bound—i.e., what things mean, and how language is used, goes beyond the definitions found in dictionaries. It is also bound in the sense of providing boundaries, "the fence around the territory, and then sets individuals loose within those limits to do whatever they want" (Agar 2002). Thus, linguaculture provides us with the field of play for communicating and managing human relations.

Agar's (1994) work also looks at how language can act as an entry point into new worlds of cultural meaning. He recounts studying the culture of "junkies" (as they referred to themselves) through an analysis of the language they use to talk about drugs and drug use. In Agar's view, language provides us with a starting point to discern critical elements of experience, and helps us understand the insider's perspective in a foreign cultural community—a view that fits well with the concerns of language learners. Agar's work discusses culture in terms of *experience*. From Agar's perspective, the experience of a new culture "moves you in a new direction that changes who you are, in both the old territory and the new" (p. 210).

Fantini (2000) also emphasizes the experience of "entering into" a new linguaculture. In his view, a language is more than a code to label objects found in the world—it's a reflection of a worldview. Learning a new language, then, means learning a new way of making sense of things:

> Language, in fact, both reflects and affects one's world view, serving as a sort of road map to how one perceives, interprets and thinks about, and expresses one's views of the world. This intertwining invites a fresh look at how we conceptualize what is meant by world view, its components, and their interrelationships: and how language and culture mediate (inter)cultural processes. (p. 27)

Fantini and Agar's work both emphasizes the experience of exploring cultural worlds while using a language. Agar (1994), for example, says that "vocabulary is more than a list of words you memorize. When people use words, they do more than just hammer out a sentence. Different words signal a different mentality, a different way of looking at things" (p. 89).

## 8.8 Linguaculture as Shared Meaning

The idea of *shared meaning* provides a crucial conceptual link between language and culture. In this view, a linguistic code reflects the shared cultural experience of its community of speakers. Thus, as we learn a new language, we are gaining access to a particular view of the world. This view has been articulated by, among others, Hall (1997):

> To put it simply, culture is about 'shared meanings'. Now, language is the privileged medium in which we 'make sense" of things, in which meaning is produced and exchanged. Meanings can only be shared through our common access to language. So language is central to meaning and culture and has always been regarded as the key repository of cultural values and meanings. (p. 1)

Similarly, Agar (1994) describes linguaculture (or, languaculture) by saying that "words are the surface of culture", and "culture is a conceptual system whose surface appears in the words of people's language" (p. 79). Similarly, Hall (1997) describes language as a *representational system*:

> In language, we use signs and symbols … to stand for or represent to other people our concepts, ideas and feelings. Language is one of the 'media' through which thoughts, ideas and feelings are represented in culture. (p. 1)

The core notion of shared meaning, then, is that both language and culture reflect a shared set of understandings about the world. At the risk of oversimplifying, language is a set of labels for shared meaning that emerges from the shared experience within a linguaculture family.

Viewing linguaculture in terms of shared meaning emphasizes the *systematic nature* of both linguistic and cultural knowledge. Once a language system is mastered, we are able to use it to express ourselves and interact with others. The idea that language and culture are fixed systems has, however, been widely criticized (Byram and Parmenter 2012; Barnland 1989; Cates 1997; Crystal 2003; Friedman 1994; McLuhan and Fiore 1968; McLuhan 1964; Risager 2006). Agar (2002), for example, points out that "culture used to be a way to generalize and explain what someone is doing" (p. 15), but says that it's difficult or impossible to do so anymore. Globalization has led to highly fragmented boundaries of cultural identity, thus calling into question cultural labels (Friedman 1994; McGuigan 1999; Singer 1968). And while individuals in a community may share certain cultural understandings, each individual has a unique perspective that may be at odds with the opinions of

others. In addition, cultural meanings are constantly in flux. Many resist terminology that implies that culture is monolithic, such as when we talk of *Thai culture* or *Finnish culture*. Such labels have fallen out of favor in a world that is obviously more complex than such simple terminology allows for.

Similarly, the boundaries of language are also fuzzy. There is, for example, no single "English language", because there are countless communities of English speakers, each who may share particular linguistic habits. We now speak of world Englishes or English as a global language (Crystal 2003), and a single language can encompass any number of cultural communities. In addition, each speaker of a language uses and creates their own version of the languages they speak—their *ideolect*. That's one reason we will never find an idealized "native speaker" that can represent the totality of a particular language. Likewise, no grammar book can fully describe a linguistic system. This is complicated by the reality that certain dialects may be seen as more official, or superior to others. Thus, speaking of a language in fixed terms easily becomes prescriptive—with high-status speakers in the privileged position of setting the standard.

## 8.9 The Dynamic Complexity of Linguaculture

An understanding of the complexity of linguaculture reminds us that language and culture can never be described fully in terms of rules or essential qualities. The grammatical rules we find in textbooks are, at best, approximations of the syntax of many speakers of that language at a given point in time. Language changes over time, and when there is no critical mass to keep that dynamic process going, we speak of a language as having "died". We include languages such as Latin or ancient Greek in this category, not because there are no speakers of this language, but because there is no community of speakers to enable this dynamic, interactive, creative, self-organizing process to continue. For a language to remain alive, it needs a cultural community whose interaction maintains the dynamic of development and change. Linguaculture, then, can be seen as a *complex system*. Diane Larsen-Freeman (2008), who has explored complexity theory in the context of SLA, explains that:

> a defining characteristic of a complex system is that its behavior emerges from the interactions of its component. … The agents or elements in a complex system change and adapt in response to feedback. They interact in structured ways, with interaction sometimes leading to self-organization and the emergence of new behavior. They operate in a dynamic world that is rarely in equilibrium and sometimes in chaos (p. 2)

This describes well the dynamic flux of both linguistic and cultural communities. Complex systems do not have clear boundaries because they are an *emergent property*—a phenomena that is produced by the interaction of simpler parts. They can be highly fluid on the one hand—with shifting boundaries and niches, yet highly stable on the other, at time absorbing vast amounts of energy without upsetting the system's equilibrium.

An understanding of complexity reminds us that static conceptualization of language and culture will always fall short. Neither language nor culture is a "thing". Linguaculture is, more than anything, a set of patterns that emerge from interaction—patterns which are always more dynamic and unpredictable than any possible set of rules used to represent them. Linguacultures are "alive"— they change over time, have loosely defined boundaries, and can die out. Individuals don't so much "master" a language or culture, as they learn to participate in a complex linguaculture ecosystem. This complex view also reminds us that generalizations about culture will always be overly simple. That doesn't mean, however, that cultural patterns don't exist and can be discounted. Cultural labels—for example, stereotypes such as *Italians are passionate*—can be both inaccurate and contain a grain of truth.

An understanding of complexity helps resolve seeming contradictions between the diversity and unity of language. The English language, for example, is so diverse that it can be difficult or impossible to define its boundaries or what represents "correct" usage. On the other hand, standardized versions of English spoken by economic elites are often experienced as existing at a central location within the English ecosystem. Linguistic ecosystems, despite having extensive peripheral zones and multiple niches, still maintain powerful patterns of overall unity that are experienced as "standard" or "right" versions of a language. This contradiction provokes debate, since it creates tension between speakers who see themselves as representing the purest or best form of a language, and speakers who represent the dynamic diversity of that language. In the language of dynamic system theory, high-status versions of English can be seen as *attractor states* that remain relatively stable in spite of the diversity swirling in and around them.

In a similar way, cultural communities are fluid and have diffuse boundaries, yet are not arbitrary. Patterns of culture emerge from interaction among people who share similar interpretations and expectations of what things mean. Cultural patterns—like linguistic patterns—are not deterministic. Rather, they inform our intuitions about what is "normal" in a given situation. These patterns of normal are not enough to predict what any given individual will do, but they provide an indispensable framework for interaction. Linguaculture patterns are both highly diffuse and variable, yet also systematic and normative. In short, both language and culture are alive, and are best conceptualized in terms of patterns and systems, not essential qualities.

**Linguaculture hidden in plain sight** The complexity of linguistic and cultural patterns is hidden in plain sight. Linguaculture patterns that are familiar to us sink beneath the surface of conscious awareness. The work of language and culture educators touches upon elements of human relations that we take for granted, yet are of central importance to our lives. This implies that we shouldn't expect language or culture learning to be simple or straightforward. It acts as a reminder of the need to take this complexity into account in the work that we do. With that in mind, the next chapter will focus on the language–culture connection from the perspective of cognition and mind. We'll see that recent research is shedding light on the interconnection between language and culture, and can inform the work of language and culture educators.

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# Chapter 9
# An Embodied View of Linguaculture


**Abstract** This chapter explores the relationship between language, culture, and cognition. It looks at contrasting ways to conceptualize linguistic meaning: (1) linguistic meaning as symbols or labels that reflect universal cognitive processes and (2) the idea that language reflects meaning particular to different cultural communities. It discusses insights from neurolinguistics, which reveal that linguistic meaning is not localized in a single place in the brain, and that the meaning of individual words is spread through regions of the brain responsible for different semantic categories. This implies that learning a foreign language requires more than new labels to attach to existing thoughts or concepts. It introduces embodied simulation theory, which hypothesizes that linguistic meaning is not primarily a manipulation of symbols, but an embodied re-creation of lived experience. From the perspective of embodied simulation theory, linguistic meaning is grounded in experience and thus rooted in the shared experience of cultural communities. In short, linguistic meaning is cultural by its very nature.

## 9.1 Language, Culture and Meaning

Perhaps the most common question asked by language learners is *What does that mean?* Meaning is central to language learning. Learners try to decipher the meaning of individual words, sentences, passages, and dialogues. They attempt to get their meaning across using the new language. Learning a new language entails internalizing a new system of linguistic meaning, and mastery of that system allows us to interpret and express meaning to speakers of that language. When you use that system well, we say you are fluent in the language. You've achieved creative mastery of the system.

The question of what things *mean* is also central to culture learning. By definition, cultural learning involves trying to understand what things mean in foreign contexts. When we are unsure how to interpret the behavior of cultural others, for example, we ask the same question: What does is mean that they offered me a gift? Or asked me my age? Or kissed me on the cheek? When we understand what things mean, we begin to see things from the local perspective—to align our understanding of



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what things mean with cultural others. A central challenge of both language and culture learning, then, is coming to know and being able to use—internalizing, or embodying—new systems of meaning.

This chapter will continue to lay the theoretical groundwork for the DMLL by exploring the idea that *shared meaning* is at the nexus of language and culture. It introduces an approach to understanding linguistic meaning—embodied simulation theory (EST)—that helps clarify the relationship between linguistic meaning and culture. In short, according to EST, linguistic meaning is produced through a mental simulation based on experience. What things mean depends directly on our experience, rather than a manipulation of abstract concepts, or as an expression of universal thought processes. This suggests that linguistic knowledge is fundamentally experiential, and thus closely tied to—and limited by—our lived cultural experience. This represents a constructivist perspective, which sees meaning not as something that represents absolute qualities in the world, but which is a result of a meaning-creating process shared among members of a community (Stryker 1980).

## 9.2 The Linguaculture Tree

A metaphor that can be used to visualize the relationship between meaning, language and culture is the *linguaculture tree*. As represented in Fig. 9.1, the trunk and the branches represent language, and the roots represent culture. This figure reminds us that a tree is not just what we see above ground, but also the roots that provide nourishment to the whole organism. To understand trees, we must remember to take the root system into account. Similarly, if we want to understand language, we need to take into account the cultural communities that give life to that language. This is called a *linguaculture* tree because both language and culture are seen as an integrated whole—two complementary parts of a single, dynamic, and complexly interacting system (Risager 2015). It's possible, of course, to cut the trunk of the linguaculture tree—to sever a language from the cultural community that nourishes it. We are then left with a dead language, preserved in dictionaries or prescribed in textbooks, but cut off from the living communities that give it life.

When we look at a tree we may forget that much remains hidden from sight. Similarly, it's easy to think of language primarily in terms of words and syntax—as though a tree consists only of leaves and branches. The DMLL reminds us, however, that language is alive, with a dynamic complexity that emerges from the interaction of its speakers. As members of a community interact with each other, both cultural and linguistic patterns emerge—their shared experiences give rise to shared linguistic meaning. Shared linguistic meaning is grounded in the shared experience and meanings of cultural communities.

At the top of the tree, we have the words and sounds of the language, which can be recorded, imitated, written down, and analyzed—they are accessible directly to our senses and lend themselves to conscious analysis. Linguistic patterns are represented by the trunk and branches—the structural elements that give it unity. Those linguistic

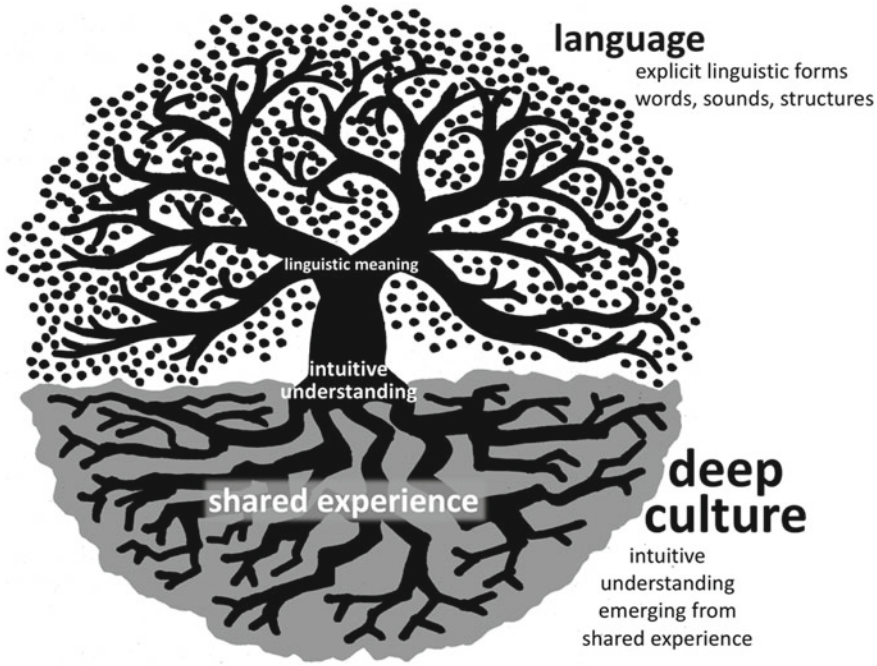


**Fig. 9.1** The linguaculture tree

patterns, however, are rooted in an intuitive understanding of how language is actually used. What things mean is ultimately defined by the people currently using that language. Thus, linguistic meaning is rooted in the shared experience and understanding of cultural communities. In the diagram, these roots are labeled deep culture—the largely intuitive (unconscious) patterns of meaning shared by a cultural community.

This is not, to be clear, an argument for the idea that a single language reflects a single discrete cultural community. Linguistic and cultural communities are infinitely complex—they are living ecosystems with many interrelated zones and niches, some seen as more central or standardized than others. To grow up speaking French in Senegal, Quebec, or Paris means participating (and being shaped by) very different cultural communities, despite speaking a common language. Distinct versions of French reflect differing worlds with distinct communication styles, values, and identities. And there are important debates over whether particular versions of a language, or particular cultural patterns, are overly dominant or even oppressive. This is a separate issue. The linguaculture tree simply reminds us that languages are complex, dynamic, and alive—and they will always reflect the shared cultural experiences of the communities that use them.

## 9.3 Cognition and Linguistic Meaning

These ideas are currently being explored in new ways through the study of semantics—the branch of linguistics that studies linguistic meaning. The ability to use language has long been thought to involve the mental manipulation of symbols—the ability to map "linguistic inputs to semantic or conceptual representations" (Weiskopf 2010). The nature of those symbols, and subsequently, the relationship between thought, culture, and language, however, is the subject of ongoing debate. Gardenfors (2014) describes two fundamental approaches to these questions; (1) a realistic theory of semantics, the idea that linguistic meaning is a symbolic representation of thoughts that describe objective qualities that exist in the real world; and (2) a cognitive (or conceptualistic) view of linguistic meaning. The latter view sees meaning as mental entities—the idea that "meanings are in the head" (p. 5), and "cognitive structures are formed in constant interplay between our minds and the external world" (p. 5).

A realistic theory of semantics implies that how we see the world will not be greatly affected by the language we speak; i.e., the particular symbolic system we use to express our thoughts about the world will not greatly affect perception or thinking itself. Steven Pinker (1995) argues for the existence of *mentalese*—a universal capacity for thought which is separate from linguistic ability. As he explains, "the language of thought … has symbols for concepts and arrangements of symbols that correspond to who did what to whom" (p. 81). He describes the relationship between language and thought thus: "Knowing a language, then, is knowing how to translate mentalese into strings of words and vice versa" (p. 82). In this view, language provides a set of labels to attach to our thoughts, and thus a foreign language is a different set of labels. This characterizes language use as separate from the parts of the brain responsible for things like movement and perception (Weiskopf 2010). This would suggest that the language one speaks should NOT be closely tied to perception or worldview, since human thought is argued to be produced by universal cognitive processes, and reflect elements of external reality. Pinker (1995), a critic of linguistic relativism, describes linguistic meaning by saying simply that "language conveys news" (p. 82). Since "news" is simply an objective statement of what is, this implies that Pinker feels our perceptions are not greatly influenced by the language we speak.

In contrast to this, a *cognitive* or *conceptualistic* view describes linguistic meaning in terms of mental constructs that are co-created by members of a cultural community. This lends itself to the idea of language learning as an "entering into" other linguistic or cultural worldviews (Agar 1994; Fantini 1997, 2001; Luna et al. 2008). This represents the idea that our view of the world is a social construct (Berger and Luckmann 1966). From this perspective, learning a new language is closely related to the ability to construct and thus experience reality in a way that is more similar to cultural others. Bennett (1993, 1998) argues from this constructivist perspective when saying that construing multiple cultural viewpoints (ethnorelativity) is critical for developing cultural empathy or intercultural sensitivity. As Bennett explains:

"a group interacting within a boundary generates a unique way to discriminate phenomena in the world, to organize and coordinate communication, and to assign goodness and badness to ways of being" (Bennett 2013). This view emphasizes perception in the sense of assigning meaning and value to phenomena.

Thus, we have two contrasting trains of thought about linguistic meaning and its relationship to culture and cultural understanding: (1) language as a set of symbols or labels that reflect universal processes of thinking and perceiving an objective reality and (2) that language is a reflection of how a community makes sense of things, and thus is tied tightly to the cultural worldviews from which it emerges. While these positions are not mutually exclusive, they tend to form two endpoints that anchor arguments about linguistic and cultural relativity.

## 9.4 A Neurocognitive View of Language and Culture

In recent years, largely theoretical arguments about language, thought, and meaning have been invigorated by new research findings from the field of neurolinguistics, which studies the structural features of the brain related to language use (Kemmerer 2015; Willems 2015). In the past, insights into language-related processes were gained through studying patients with injuries to particular areas of the brain. This allowed researchers to identify particular areas, such as the cerebral cortex, that were important for linguistic processing. It identified types of aphasia—language disorders—associated with particular regions, as well. Such research, however, doesn't shed light on such processes in real time. New research methodology, however, such as fMRI imaging, is allowing us to investigate these processes as people use language, and at different levels of analysis, from syllables and phonemes, to words and sentences, to discourse (Andric and Small 2015). It has allowed for detailed semantic mapping of the brain, allowing us to identify regions of the brain that are associated with particular concepts and pragmatic categories (Maldarelli 2016).

Such research is showing that language use is integrated with many other cognitive functions. In other words, there is no single, modular section of the brain responsible for language processing. If language were a specialized function that operates independently of other processes, then a relatively localized process would be expected. Linguistic mapping in real time shows us, however, that language use is associated with multiple regions of the brain, known collectively as the semantic system (Huth et al. 2016). Activity in particular areas can be related to the processing of linguistic meaning by tracking, for example, brain activity during semantic tasks, as opposed to phonological tasks, or natural speech as opposed to scrambled speech. Semantic maps are broadly similar among different speakers, despite individual variation.

Semantic mapping has shown that words are spread out widely throughout the cerebral cortex, and that single words are not associated with a single place. Rather, the various uses of the same word are found in areas related to different semantic categories. Thus, the word *top* is found in a region associated with positions, and also a different region associated with clothes—that is to say, the variety of meanings

that individual words have are not grouped together. This implies that a word is not simply a label to attach to a singular, discrete concept. Linguistic meaning involves a network of associations that relate to different semantic categories, and thus different experiences. The word *top* can be experienced as referring to a place (*The view from the top looks great!*) or as an article of clothing (*That top looks great on you!*). This implies that learning concepts in a foreign language involves creating a network of meaning associated with widely disparate categories of experience.

Our semantic map is organized in terms of experience. Semantic categories that have been identified include visual, tactile, body part, number, places, person, violence, mental, time, and social. Some categories that have been discovered are quite broad, and include, concrete versus abstract words, action verbs, and social narratives. Some are more selective, and include things like living things, tools, food, or shelter. Such an organizational structure reinforces the notion that semantic knowledge is dissimilar to the lists of words and definitions that we see in dictionaries or textbooks. Linguistic meaning is closely associated with lived experience and the way the world works, both physically and socially. Language use is related to lived experience in the world, and not simply the human capacity for manipulating abstract concepts or symbols. Linguistic understanding, in this view, is fundamentally experiential in nature.

Despite this progress, such research doesn't explain the precise dynamics by which cognitive processes produce the experience of linguistic meaning. That represents an even deeper, more complex challenge, what Evans (2015) describes as the holy grail of brain and mind sciences. This involves answering fundamental questions as: "How does meaning arise? What mechanisms produce it? And what are the respective roles of language and concepts, separately and collectively, in producing meaning?" (p. 24). Such research reminds us that language is not simply a convenient tool to get someone to pass the sauerkraut. Language "reveals fundamental aspects of mind design: features of the human mind that are universal to us all (p. 27)." Or, more succinctly, language "reveals the structure of thought: it is a window on the mind (p. 27)."

Issues of language, mind, meaning and thought used to be investigated primarily by philosophers. That has changed. Philosophy and linguistic neuroscience now seek answers to similar questions. As of yet, there is no consensus on the answers to these fundamental questions. There are competing conceptualizations, such as "radical embodied cognition" and "conceptual metaphors" (Evans 2015). Linguistic concepts may be described as "sensorimotor patterns that allow the organism to interact with the physical world" (Pecher and Zwaan 2005), or in terms of "the geometry of meaning" in which semantics is understood as conceptual spaces (Gardenfors 2014). Such esoteric conceptualizations reflect the complexity of the processes involved. There is an emerging consensus that language is not a simple process of labeling discrete concepts as part of a symbolic system. Instead, meaning is increasingly seen as a construction that is the result of highly complex cognitive processes (Evans 2009).

## 9.5 Embodied Simulation Theory

Despite these challenges, there has been exciting progress made in understanding the constructive processes of language. One pertinent line of inquiry relates to *embodied simulation theory*—an approach to understanding how the brain produces the experience of linguistic meaning (Bergen 2012). In brief, embodied simulation theory proposes that language use is intimately tied to our actual experience in the world. It is not primarily a manipulation of abstract concepts or symbols. It suggests that our personal experiences and cultural background are an integral part of the cognitive processes of language—that is to say, the meaning we get from language will depend on our previous experience as an individual, and as a member of a linguaculture community. In one study that supports this view, for example, Russian-speaking immigrants were asked to recall life experiences with word prompts. Researchers found that subjects were better able to recall biographical details when the language being used matches the language used when those memories were encoded (Marian and Neisser 2000). That is to say, it was easier to remember an experience in Russia when the verbal prompts were in Russian. This is concordant with the view that language use itself is closely associated with lived experience—language triggers a simulation grounded in that experience.

The theory of embodied simulation poses a challenge to the way that linguistic meaning has traditionally been conceptualized. Language is often thought of primarily as a symbolic communicative code—a product of mentation related to the abstract realms of concepts and thought. This view of language has encouraged an enshrinement of symbolic thinking as a central feature of language. As explained in an introduction to cognitive linguistics: "One crucial function of language is to express thoughts and ideas. That is, language encodes and externalizes our thoughts. The way language does this is by using symbols" (Evans and Green 2006). In this view, symbolic thinking is an essential element of what makes us human, and what makes humans special:

> From a scientific point of view, perhaps it would be better to say that the word is both the beginning, middle, and end of development … If there were no semiotic system in which to formulate a plan, there could be no intelligent action at all. Therefore … intelligence is a problem of symbolization from start to finish (Oller 1991, p. 7).

This way of thinking about language puts conceptual thought at the center of linguistic meaning. Steven Pinker, for example, says that "semantics is about the relation of words to thoughts" (Pinker 2007). This view lends itself to an information-processing view of language and mind, as found in theoretical approaches to meaning such as schema theory and connectionism (D'Andrade 1995; Strauss and Quinn 1997).

Such debates are important to language educators, because the way we think about language and meaning affects the mental models we use when we teach. Thinking of language as a symbolic code paints a metaphoric picture of language as a sort of linguistic arithmetic—one that involves symbolic formulas that label our thoughts. This characterizes language use as primarily a mental experience, with

communication involving the decoding of a symbolic system. From this perspective, switching languages involves using a different code to express our thoughts. If we take this as a starting point, we may be tempted to focus primarily on the structural features of language—its syntactic coding. We might think: *If I can get my students to understand the structure of the language, they'll be able to use the code*.

This view, however, leaves important questions unanswered. Language may be a symbolic system, but it's use is not abstract and detached from the world—it is deeply felt and personal. It's different from math—which also involves the systematic use of symbols. As de Vega (2015) puts it: "one problem with symbolism … is that language meaning lacks grounding in the world" (p. 183). Language learning is more than a mental exercise—it provides entry into a world of meaning, not simply a new way to label universal thoughts.

Until recently, there have been few alternative models for understanding the mental processes of language use. In recent years, however, another approach has emerged, spurred on by insights from the field of linguistic neuroscience. *Embodied simulation theory* proposes that rather than creating meaning through the manipulation of symbols, our mind experiences linguistic meaning through a simulation, or recreation of actual experience (Bergen 2005, 2012; Gibbs and Perlman 2010). As Bergen (2012) explains:

> Meaning, according to the embodied simulation hypothesis, isn't just abstract mental symbols; it's a creative process, in which people construct virtual experiences—embodied simulations—in their mind's eye. If this is right, then meaning is something totally different from the definitional model we started with. If meaning is based on experience with the world—the specific actions and percepts an individual has had—then it may vary from individual to individual and from culture to culture. … It's not about activating the right symbol, it's about dynamically constructing the right mental experience of the scene. (p. 16)

By way of example, according to the embodied simulation hypothesis, the word "clothes" doesn't exist in your mind simply as a concept in a mental dictionary—an item to cover and protect our body. Instead, hearing the word "clothes" will bring to mind images and sensations related to your experience with clothes. For that reason, shirts and trousers may come more quickly to mind for men, while skirts and blouses may be more salient for women. But that will also depend on individual experience—what different individuals wear and come into contact with. Because of this, while kimonos, kilts or penis gourds may fit the dictionary definition of clothing, they probably don't occur to you when someone uses the word clothes—unless they happen to be common to your everyday experience.

According to embodied simulation theory, because it's rooted in actual experience, linguistic meaning incorporates bodily sensations and reactions—it is *embodied*. If I say *wet dog*, for example, your mental simulation may include the smell of a wet dog. Your mind is not simply adding two abstract concepts: *wet* + *dog*. Instead, it simulates the experiences you've had with wet dogs. If you mention that your dog jumped over a pool, one person might visualize a big dog jumping over a small pool, while another might visualize the opposite. According to embodied simulation theory, the mind is not simply remembering feelings associated with symbols, the whole-body experience is built into language processing itself. Language, according

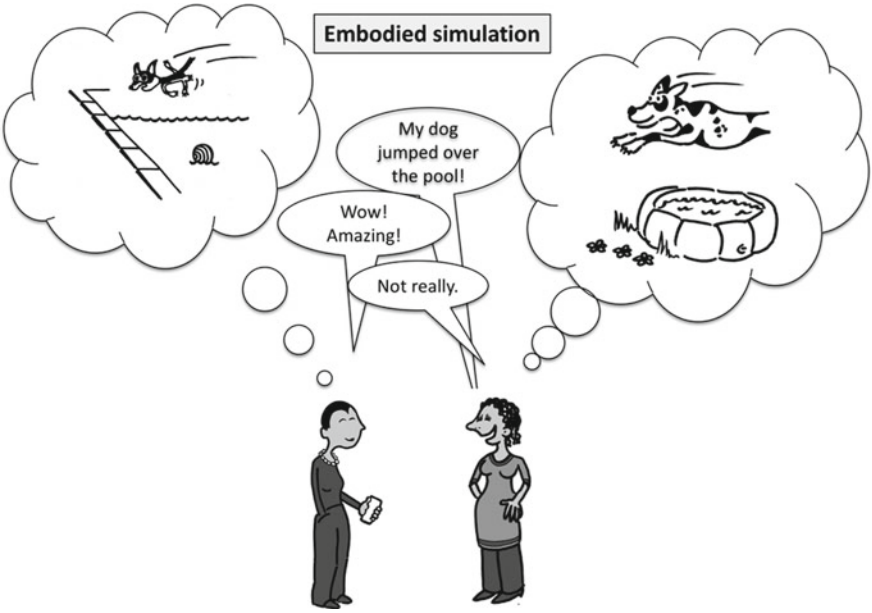


**Fig. 9.2** Embodied Simulation

to this view, can only represent reality in terms that relate to our experiences up to now (Fig. 9.2).

While there is still spirited debate on this issue among specialists (Gibbs and Perlman 2010; Weiskopf 2010), there is a growing body of experimental evidence that supports embodied simulation theory (Bergen 2005, 2012; Gibbs 2006; Gibbs and Perlman 2010). Much of this research relates to showing that the parts of our brain that are normally used for perceiving and doing are activated when we process linguistic meaning. One example of this is called the *Perky effect*. This refers to the fact that the processing of linguistic meaning reduces our ability to actually perceive the world. When you are talking on the phone, for example, you are less able to focus your attention on your surroundings. According to embodied simulation theory, the Perky effect happens because processing linguistic meaning uses resources from the parts of our brain responsible for perceiving, seeing and doing. In other words, there's not a clear cognitive distinction between comprehending language and actually having the experience being referred to.

This premise has been tested and confirmed in many ways. For example, physical actions, such as the act of making a fist, activate the same regions of the brain as putting together the sentence *make a fist* (Bergen 2012, p. 45). This is true even when we are not specifically trying to visualize or mentally simulate that behavior. This implies that language use is tied to actual behavior, and doesn't simply involve the manipulation of abstract symbols. Implicit association testing has shown that hearing the sentence *You are driving a car*, for example, makes it easier to access

words related to car interiors (such as the steering wheel) when compared to sentences such as *You are washing a car*, which makes it easier to access words associated with an external perspective (such as a tire). This suggests that processing the sentence involved a simulation of the actual experience. In another experiment, participants were faster at identifying blurry images of a moose after having read the sentence *Through the fogged goggles, the skier could hardly identify the moose*. When they read a comparable sentence involving clean goggles, they were faster at identifying clear images of a moose (p. 70).

One question raised by embodied simulation theory is how the brain processes abstract ideas, such as *government* or *love*. Research in this area has focused on the metaphorical use of language (Gibbs 2006; Hiraga 2005; Lakoff and Johnson 1980). When communicating abstract ideas, we rely on metaphors that are related to actual physical experience: we *fall* in love; *rise* to a challenge; *reach for* our goals; and *catch up on* our sleep. Lakoff (Lakoff and Johnson 1980) believes that metaphor is critical in shaping our experience of the world. He points out, for example, that in English when we talk about arguments, we use metaphors associated with competition and war, such as when we say "he didn't give any ground" or "she won the argument". When referring to discussion, English speakers use marketplace metaphors, such as having a *give and take*, or an *exchange of ideas*. Discussion in Japanese, by contrast, is metaphorically more related to a bringing together—it involves terms such as *nemawashi* ("root binding"—a discussion to reach preliminary shared understanding) or *uchiawase* (combining the characters *strike* and *join* to mean "discuss" with an association of bringing together).

Metaphorical language has been explored using embodied simulation theory as well (Gibbs 2006). In one experiment, participants were asked to walk blindfolded to a marker 40 ft away. Prior to this, they had heard stories about a romantic relationship. When the stories were described in metaphorical terms, such as *Your relationship is moving along in a good direction*, participants walked longer and farther than when they heard the same stories using nonmetaphorical language, such as *Your relationship is very important to you* (Gibbs 2013). Such research provides evidence that simulation of meaning is a foundational aspect of even abstract thinking. While such research is in its beginning stages, it does suggest that our actual experience in the world provides the cornerstone of our use of language, and our ability to communicate with others.

## 9.6 Language, Culture and Embodied Simulation

Embodied simulation theory has important implications for understanding the relationship between language and culture. Bergen (2012) points out that linguistic meaning depends not only on our personal experiences, but also the shared experiences of cultural communities, saying that "the same words can drive different embodied simulations for different bodies of people" (p. 177). The example he gives relates to

the sentence *I was waiting for my brother on the corner*, which may produce a simulation in your mind that involves standing, pacing, or perhaps sitting on a bench. In parts of China, however, these same words might involve squatting, something commonly done when waiting. Thus, even simple words may produce different mental simulations depending on one's experience.

Embodied simulation helps us understand that culture resides not in language itself, but in the patterns of experience associated with a particular language. Words that are heavily laden with associated experiences—such as *tea time*, or *Christmas*—incorporate wide-ranging, complex simulations. Understanding the word Christmas conceptually is easy, while having a *feel* for it requires a lot of experiential associations, such as opening presents, a family meal, Santa Claus, and Christmas trees. For learners of a foreign language—who may lack these lived experiences—these words will lack emotional depth and resonance. In a similar way, everyday words like *family* will trigger a set of embodied simulations that reflect one's own cultural background, and potentially cause misunderstanding if we fail to recognize that the same word can have very different experiential overtones in other linguaculture communities.

The idea of embodied simulation draws attention to our *intuitive* understanding of language. It's no accident we talk about having a feel for how a word is used, or getting the gist of what someone is saying. Linguistic understanding is not purely conceptual. It's subtle and nuanced, full of associations, sensations, memories, and emotional resonance. It is this intuitive realm that gives birth to the creative power of poetry and literature—sublime experiential worlds that emerge from one's experience of linguistic meaning. This intuitive experience of language is much more than the sum total of its parts—it produces mental and emotional experiences that go beyond the conceptual understanding of individual words or sentences. We may thus have a feeling for a word that we ourselves cannot define. This implies that linguistic meaning, like cultural meaning, can be relatively explicit (conscious and symbolic) or deep (intuitive and experiential), and that it is the deeper, more intuitive forms of experiencing language that are most closely related to culture.

## 9.7 An Embodied View of Linguaculture Meaning

An understanding of embodied simulation and the semantic system helps clarify the relationship between language and culture. It suggests that: (1) *cultural patterns emerge from the shared interaction and experiences of participants in cultural communities, and* (2) *language is a symbolic system that activates the embodied simulation of those shared experiences*. That is to say, a word or sentence is not a packet of information that delivers meaning from one person to another—it is a trigger for an experiential simulation. Linguistic meaning is richly experiential (Gardenfors 2014), and thus tied to the shared experiences of cultural communities. That's why learning the definitions of words is not enough to get a sense for how language is used. Our intuitive understanding of language is situation specific and grounded in lived experience.

This helps us understand why culturally laden words can be so difficult to translate or fully express in another language. Cultural understanding is, fundamentally, an insider's understanding, grounded in the experience of that community. When naming everyday objects, such as pencil or table, there may be little distinction between an insider's and outsider's view—the experience of using a pencil or table is relatively universal. Often, however, even common words found in all languages will be experienced differently depending on shared cultural experience. A word like *marriage*, for example, has different associated values and responsibilities, depending on the cultural context.

Some words and ideas rely heavily on in-group experience. By way of example, the term *halus* is an Indonesian word that can be translated into English in a variety of ways: *cultured*, *sensitive*, *delicate*, *soft, invisible*, *unseen*, *small, finely milled*. This list provides few clues, however, as to how the word *halus* is used and experienced in Indonesia, and in Java particularly. As an ideal, *halus* refers to a quality of calm that reflects an inner state of spiritual harmony, and is embodied by behavior that is chivalrous and polite. The opposing quality of *halus* is *kasar*, which refers to that which is disharmonious, ugly, imbalanced and out of control. In Java, *halus* is a quality that is associated with the ideal ruler, one triumphs over the turbulence and chaos of opposing forces without seeming to make any effort at all (Fox 2013). The experiential nuances of such as word are rooted in Javanese culture. Without experience living among Indonesian speakers, it's difficult to get an intuitive grasp of a word like this. And intuitive understanding is important for language learners, as it's what allows us to use language in real life.

## 9.8 Intuitive Cultural Understanding

The idea that linguistic and cultural understanding is grounded in patterns of experience highlights the importance of *intuitive understanding*, as opposed to conceptual or critical understanding. It suggests that educational objectives should focus on the intuitive understanding that comes from experiential learning. This view makes an important distinction between more purely explicit, symbolic or conceptual elements of language (dictionary definitions, mental symbols), and the more implicit, intuitive, embodied, experiential elements of language (gist, intuitive understanding, cultural associations, nuance). Similarly, it distinguishes between explicit and implicit patterns of culture as well. Implicit patterns include things like norms, values, assumptions—elements that are experienced primarily at the intuitive level.

Figure 9.3 brings these ideas about the language–culture connection together visually. It is a more elaborated representation of the linguaculture tree, with language and culture largely overlapping. The tops of the circles represent more explicit, concrete, consciously accessible elements of language and culture. The bottoms of the circles represent elements that are more implicit, intuitive, and contextualized. Deep linguaculture knowledge is primarily intuitive—it develops from experience, it involves implicit understanding, knowing the *gist* of things, the ability to *read*

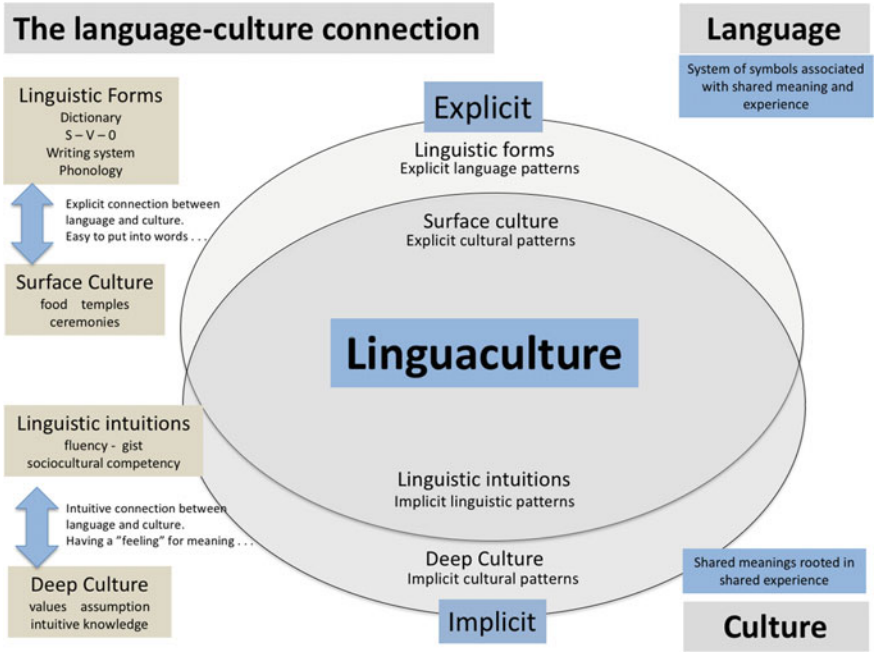


**Fig. 9.3** The language–culture connection

a situation, and so on. This distinction between conscious and intuitive knowledge helps explain why explicit elements of culture (food, temples, and ceremonies) are relatively easy to explain using language, whereas deeper, more implicit elements of culture (values, assumptions, and cultural schema) are harder to articulate. Deep linguistic knowledge is closely connected to deep cultural knowledge.

At the top of the language circle are explicit elements of language that are decontextualized. This surface form of a language is often what is focused on in foreign language education. Intuitive knowledge is very difficult to articulate, which is why there's a portion of cultural knowledge at the bottom of the diagram that doesn't overlap with language at all. In addition, linguistic knowledge that is most highly intuitive—having a *feeling* for how to use a word, for example, or understanding implicit meaning not found in the words themselves—are toward the bottom of the language circle. There is a portion of language circle, at the top, that doesn't overlap with the culture circle. That represents language as a purely symbolic system, as might be found in textbooks and dictionaries.

This figure reminds us that language *can* be conceptualized and taught as a purely symbolic system (as at the top of the circle). A more integrated approach to language and culture education, however, will also take into account the deeper, more intuitive elements of language—those which are more closely related to cultural understanding. The elements toward the bottom of the language circle—gist, fluency, and sociocultural competence—are those that require the most embodied and

culturally embedded forms of knowledge. And while a few learners may reach high levels of linguistic fluency in the absence of significant intercultural experience, their ability to use the language in real life will almost certainly be impaired—they may have little sense of the cultural nuances of what they are saying. This implies that language practice which is experiential, contextual, and informed by cultural input, will better prepare learners for the challenges of using language in real life.

**An integrated approach to linguaculture learning** This chapter has examined the connection between language and culture. It introduced embodied simulation to argue that linguistic meaning is grounded in the shared experience of cultural communities that use a language. This was represented visually as two overlapping circles illustrating both explicit and implicit elements of language and culture. It also introduced a conceptualization of language and culture as overlapping, with intuitive elements of language (gist, fluency) more closely related to deep elements of culture. This integrated view of language and culture is central to the DMLL. The next chapter further develops this conceptualization, and considers the mental models we use when thinking about language and culture learning. It will introduce the theoretical assumptions of the DMLL, and describe four levels of language and culture learning.

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# Chapter 10
# A Developmental Model Linguaculture Learning


**Abstract** This chapter introduces the Developmental Model of Linguaculture Learning. The starting assumptions of the model are described, including the idea that language and culture learning is an adaptive process that can be either surface or deep. Linguaculture learning is described as demanding, deep, and complex. The developmental levels of the DMLL are described in terms of dynamic skill theory, which describes how skills emerge at higher and higher levels of complexity. The DMLL proposes that as learners develop increasing cognitive complexity and mastery that their experience of learning changes. The DMLL is said to provide a developmental roadmap for both learners and educators. The DMLL sees the goal of both language and culture learning as increased intuitive understanding of linguistic and cultural patterns, and ultimately to increasing creative mastery—the ability to express oneself in new linguistic and cultural contexts.

## 10.1 The Developmental Model of Linguaculture Learning

The DMLL provides a pedagogical framework for thinking about the relationship between language and culture learning. As discussed elsewhere, language and culture learning are often conceptualized separately—language learning as acquiring knowledge and skills, with cultural learning discussed in terms of advanced perception or cognition. This assumption encourages separate mental frameworks for educators when planning pedagogy, and an assumption that one must be set aside to focus on the other. The DMLL proposes, instead, that language learning and cultural learning are two interrelated parts of a larger whole—linguaculture learning.

The DMLL is not a detailed description of the cognitive processes involved in language and culture learning. It isn't intended to replace existing approaches to second language acquisition research or intercultural education theorizing. Rather, the DMLL acts as a simple conceptual framework that helps educators think of language and culture learning in a more unified way. It is a set of conceptual tools that act as a starting point for more unified pedagogy. Previous chapters have presented the conceptual building blocks of the DMLL. This chapter weaves these together in a more formalized way, by clarifying the starting assumptions of the DMLL, defining key



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concepts, and describing the linguaculture learning process. The following chapter looks in more detail at each of the four levels of the DMLL.

## 10.2 Starting Assumptions

**An integrated understanding of language and culture learning** The DMLL treats language and cultural learning as fundamentally similar processes. In this view, both language and culture are complex and dynamic systems of shared meaning. Language acts as a medium for communication and relating, and shared cultural understandings provide assumptions and expectations that guide social interaction. And while linguistic and cultural patterns are systematic and normative—they include a shared sense of what is right or appropriate—they are also complex and dynamic. They are more than a set of rules—they are a dynamic medium for shared understanding. Linguistic competence involves the ability to use linguistic patterns in creative ways in an ongoing process of collective meaning making. Similarly, cultural competence involves the ability to interpret meaning according to the shared standards of a cultural community—to have an insider's perspective as to what things mean, and to use that knowledge to guide one's interactions with others. Shared linguistic or cultural expectations do not mean that everyone acts or communicates in the same way. Rather, they set the boundaries of what is considered normal, typical or appropriate in a given context. Each individual will play the "game" of communication and human relations in their own way. There is no contradiction between communicating or relating in ways that are "typical" even as one expresses one's distinct and unique qualities.

The DMLL describes linguaculture learning in terms of embodying foreign systems of meaning into the self. When linguistic or cultural patterns are embodied, they are integrated into the *intuitive mind*—the autopilot of everyday life. At deep levels of the self, linguistic and cultural knowledge are closely related. Our intuitive knowledge of language—having a *feel* for what things mean, a *sense* for how language is used in context, an understanding of the *gist* of words and their associated meanings—is rooted in lived the experience of cultural communities. While a few learners may develop linguistic fluency purely through an intellectual process of memorization and pattern practice, their intuitive understanding of how that language will be impoverished.

**Linguaculture learning is surface and deep** The DMLL is informed by dual processing models of cognition, which describe mental processes as relatively more analytic and reflective (surface), or more intuitive and experiential (deep). From this perspective, language and culture represent separate domains primarily in the realm of conscious thought and analysis—when learning *about* language (linguistics) or culture (anthropology). At the deeper levels of intuitive mind, however, they are more integrated. Linguistic knowledge may be surface (conceptual and analytic—as with the conscious study of grammatical patterns) or deep (internalized and intuitive—as

when using language fluently). Similarly, cultural knowledge may be surface (the facts and figures of a foreign place, for example) or deep (an intuitive sense for how things will be interpreted, for example). By distinguishing between surface and deep forms of learning and understanding, pedagogy can focus on language and culture separately (as separate forms of surface learning) or in more integrated form (as a deep form of experiential learning that results in intuitive understanding and mastery).

**Linguaculture learning is an adaptive process** The DMLL assumes that language and culture learning is an adaptive process—it is a response to adaptive demands. In a foreign country, for example, we change ourselves in order to better fit in to our environment—we learn how to use the bus system, how to greet by kissing on the cheek, or how to peel a mango. In a similar way, the patterns of a new language are foreign to us. Not only are they unfamiliar, they represent a different communicative system that we need to internalize and adapt ourselves to if we are to communicate. This implies that a language classroom is not a psychologically neutral space that learners enter in order to take in information. Rather, confronting the foreignness of a new language—even in a classroom—requires a process of psychological adjustment and internalization. In this view, a foreign language is a psychological and cognitive imposition on learners.

This central idea—that language and culture learning involves an adaptive process—is represented in Fig. 10.1. The circles represent the subjective experience of learners grappling with new linguistic and cultural patterns. Foreign patterns of language and culture are first experienced as foreign and disruptive, as represented by the jagged edges in circle i-1. The i-2 circle shows patterns increasingly internalized, yet still not integrated. The i-3 circle shows patterns that have coalesced into a functional component of self, although not fully integrated into the self. The i-4 circle represents an enriched sense of self (bigger circle) and patterns fully integrated into the architecture of the mind. The "i" refers to the *integration* of foreign elements into our *identity*. When we integrate new linguistic and cultural patterns into our cognitive operating system, we gain more than a set of skills, or the ability to achieve productive intercultural outcomes. We expand our sense of self. That is to say, we don't simply acquire a new language, or a new cultural perspective, we become a more multilingual, multicultural person.

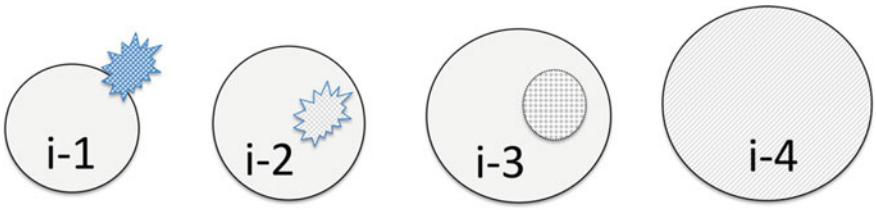


**Fig. 10.1** Language and culture learning as an adaptive process

**Linguaculture learning is transformative** The DMLL emphasizes the phenomenology of learning—it focuses on how the learning process is experienced. It assumes that language and cultural learning are transformative. That is to say, the process of learning a new language changes one's experience of that language—when we first study a new language, it is experienced as foreign; the sounds are indecipherable, the patterns are unfamiliar, and using it does not come naturally to us. Over time, however, they become a natural extension of the self. Similarly, the streets of a foreign city gradually become familiar to us as we explore, and when we live in a foreign country, our perspective may shift from being a cultural outsider to a cultural insider. For both language and culture learning, the act of embodying foreign patterns changes our experience of those patterns—language and culture learning is not just a question of adopting certain behaviors, it involves being and becoming. We develop a sense for ourselves as a foreign language speaker, or as a more intercultural person.

## 10.3 The DMLL and Language Learning

The DMLL is broadly concordant with a sociocultural view of second language acquisition (Gardner 1985, 2010; Lantolf 2000), which proposes that "the learning of a second language involves taking on the features of another cultural community" (Gardner 2010, p. 3). The DMLL assumes that language and cultural learning is psychologically taxing—it requires psychological and cognitive adjustments on the part of the learner. Linguaculture learning, in this view, is not a psychologically neutral challenge, such as memorizing a string of random numbers. It constitutes a demand for change, largely imposed on the learner by external forces, by textbooks, teachers, schools, society, and more fundamentally, by the foreignness of different social worlds, and the need to function using different linguistic and cultural standards. When this process doesn't go well, however, it can represent a threat to existing patterns of self and generate resistance and stress. Similarly, while foreign experiences can be deeply rewarding, they can also provoke adjustment stress and culture shock. This work sees the psychological demands of language and culture learning as fundamentally similar. The psychology of linguaculture learning is explored in Chap. 6.

## 10.4 The DMLL and Cultural Learning

The DMLL conceptualizes *cultural learning* as the learning and adjustment that results from foreign experiences. Or, put more formally, *cultural learning involves the behavioral, socio-cognitive, and psychological change that occurs as a result of the adaptive demands of foreign situations or sociocultural environments*. This view is grounded in an open systems perspective, which sees humans as being in constant interaction with their environment (Kim 2001b). When we first walk in the streets

of a foreign city, for example, we are exposed to an unfamiliar environment—we notice the foreign sounds, unusual behavior, unknown objects, and so on. Because humans are highly attuned to their social environment, this provokes an adaptive learning response—we notice novel details, we try to decipher what's going on, and start to habituate ourselves to our new surroundings. This involves learning at many different levels of self. We may consciously focus our attention on a sign written in a foreign language, trying to figure out what it means. But learning also happens unconsciously too, as we get used to how things look, how people act, the sounds we hear, and so on. Over time, this environment will seem more familiar, and we will learn to navigate it better—it will become more normal to us.

The demands of cultural learning can produce a variety of complex outcomes, including resistance, acceptance, and adaptation (Shaules 2007). Resistance refers to a psychological threat response, in which change is avoided and existing patterns are reinforced, and in which the foreignness being confronted is denigrated. Acceptance involves the recognition of the validity of cultural difference, yet without changing oneself—it is a neutral response which involves neither adaptation nor resistance. Adaptation refers to change which reduces the gap between the learners and the foreign environment—changing oneself to better fit in. As represented in Fig. 10.2, according to Shaules, cultural learning happens at surface and deep levels of the self—one may resist, accept or adapt to surface (explicit) or deep (implicit) cultural difference. In addition, cultural learning is complex—for example, someone may adapt to surface culture, but resist deeper cultural learning. This can be found, for

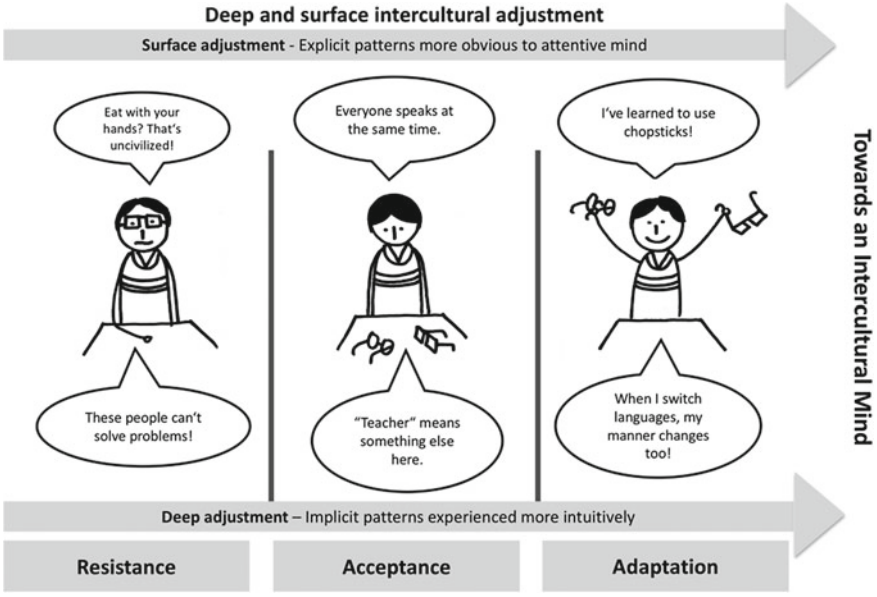


**Fig. 10.2** Shaules model of deep culture learning

example, among expatriates who may know how to get around in a foreign city, but who have no interest in learning the local language or adapting at deeper levels of the self. Cultural learning is also developmental—it involves a process that changes the learner over time, leading to increased intercultural sensitivity and/or increased resistance.

Cultural learning is not limited to experiences with people from other countries. Moving from the countryside to the city, changing schools, visiting a new place of worship, or marrying into a family—all of these experiences imply adjusting to a "new normal". Any of these situations will create a gap between the patterns in our environment (its foreignness) and the way we normally think, act, and communicate. And because all learning requires change and is disruptive to some degree, there can be no absolute demarcation between cultural learning and less disruptive forms of learning. The assumption of the DMLL, however, is that language learning and cultural learning require the internalization and embodiment of competing cognitive structures—that is to say, someone who is multilingual switches between languages, just as someone with extensive intercultural experience may switch between different perspectives or worldviews. Learning a new language requires setting aside one's habitual ways of communicating. Cultural learning involves setting aside one's normal way of making sense of things. This is different from, say, learning a new recipe or the names of all the countries in South America. Unlike cultural learning, such everyday forms of learning are additive and don't involve disrupting existing patterns and the development of new ones.

## 10.5 Demanding, Deep and Complex

Conceptualizing language and culture learning as an adaptive process of embodying foreign elements into the intuitive mind has a number of pedagogical implications. These can be understood by examining ways in which language and culture learning are *demanding*, *deep* and *complex*. These three concepts serve as organizing principles for developing pedagogy.

**Demanding** Linguaculture learning is psychologically demanding. We don't acquire linguistic and cultural knowledge in a neutral way, storing it somewhere in our mind—like a book we put on a mental shelf. We're not simply repeating behavioral patterns until we can do them automatically. Instead, it involves *embodied complexity*—we must integrate complex patterns of foreignness deep into the operating system of the self. We must set aside the L1 as we decipher and adapt ourselves to the patterns of our L2; we must set aside our cultural assumptions and interpretations as we decipher and adapt ourselves to foreign cultural patterns. This is demanding because these patterns are deeply embodied—they are an integral part of who we are. We are not simply adding new information; we are changing the self. We see this most obviously when sojourners suffer from adaptive stress and culture shock, or when foreignness (e.g., immigration) provokes bigotry and intolerance. We also see how stressful language

learning can be—we easily feel incompetent or embarrassed attempting to use a new language—and how hard it is to maintain language learning motivation over the long term.

**Deep** Language and culture learning is *deep* in that it involves the largely unconscious processes of the *intuitive mind*. In the past, the unconscious mind was thought to be primarily the seat of primitive emotions and reflexes. Now, however, we understand that unconscious cognition (the intuitive mind) is highly complex; it shapes our thinking and perceptions; it guides our behavior through urges and demands, it assesses novelty, motivates us, resists uncertainty and risk, evaluates potential reward, and provides us with an intuitive sense for what things mean, and how to do things. The intuitive mind draws on a highly complex body of intuitive knowledge as it guides us through our daily lives—including our mastery of our L1 and our cultural fluency in familiar settings. We remain largely unaware of the complexity of these processes because the intuitive mind functions largely beneath the surface of conscious awareness.

The DMLL describes this process under the rubric of *deep learning*. Learning is deep in that it is psychologically demanding, it involves adjustment to unconscious patterns of cognition, it can provoke powerful reactions of resistance, it can be meaningful and transformational, it can provoke shifts in our experience of self, in how we communicate, or how we view the world. Deep learning results in change at intuitive levels of self—we gain mastery of new linguistic patterns, the ability to interpret foreign phenomena in new ways, and the sense of having *become* a more intercultural person as a speaker of a new language.

**Complex** The internalizing processes of language and culture learning are *complex*. New knowledge and skills are NOT acquired in a simple cumulative manner—like stacking bricks to make a pyramid. We are, rather, learning a complex system in which simpler elements must come together in a holistic way. Complex skills cannot be learned in a predictable manner. Rather, they emerge—they self-organize at a higher level of complexity when elements come together in the right way, as when the notes of a scale combine to form music, or when certain weather conditions combine to form a storm. This process—elements coming together to function at a higher level of complexity—is not easy to predict. But, as with forecasting the weather, it's possible to understand the conditions that can lead to higher level functioning, and track the system's development. As with teaching tennis or jazz, we can teach individual skills such that they can be combined, experimented with, and internalized. We can provide the supportive conditions needed for reaching higher levels of function.

## 10.6 Developmental Levels

To make sense of the deep learning process, the DMLL draws on key insights of *dynamic skill theory* (DST). DST is an approach to understanding learning and cognitive development developed by educational psychologist Kurt Fischer (Fischer

and Yan 2002; Fischer and Bidell 2006; Fischer 2008). It describes a developmental progression that mirrors the way neural networks are organized—from simple and discrete elements to more dynamically complex and systematic. It describes learning as a series of stage-like shifts of increasing complexity—each level being built from simpler skills at a previous level. DST describes transformational rules that "specify the particular developmental steps by which a skill moves gradually from one level to the next" (Fischer 1980, p. 477). DST is intended as a common framework for understanding learning throughout many domains—cognitive skills, socio-emotional skills, language, and motor skills. DST has also been applied to foreign language education by scholars such as Murphy (Murphy and Sin 2014; Murphy and McClelland 2011), and is part of broader field of educational neuroscience (Cozolino 2013; Fischer 2009; Sousa 2010; Tokuhama-Espinosa 2014). The DMLL borrows fundamental insights from DST and applies them to linguaculture learning.

As seen in Fig. 10.3, the DMLL uses the four levels of learning delineated by DST: (1) *single set*, (2) *mapping*, (3) *system*, and (4) *system of systems* to describe four levels of language and culture learning. According to DST, complex skills start through an accumulation of single sets—discrete data or individual skills learned in relative isolation from each other. We see this in language learners as they learn individual words, or grammar rules. In cultural learning, this corresponds to learning particular facts, or having an isolated experience. Next there is a process of mapping, as those individual bits of knowledge are connected to each other in meaningful ways. In language learning, this may involve learning grammatical rules and constructing sentences. For cultural learning, this may involve learning "rules" of etiquette, or learning behavioral expectations in particular situations.

The DMLL labels the four levels of DST in terms of how learning is experienced—**encounter**, **experiment**, **integrate**, **bridge**. The theoretical premise of these labels is that as learning progresses, the phenomenology of learning changes. Put simply, beginners experience a foreign language or cultural community differently from more advanced learners, because foreign patterns are processed in increasingly complex ways, and are more fully integrated into socio-cognitive function. At the i-1 level, the experience of learning constitutes an **encounter** with discrete knowledge and skills. Learning is experienced largely in terms of remembering or building up knowledge, and learners may be naïve about the formidable learning task still ahead. Learning at

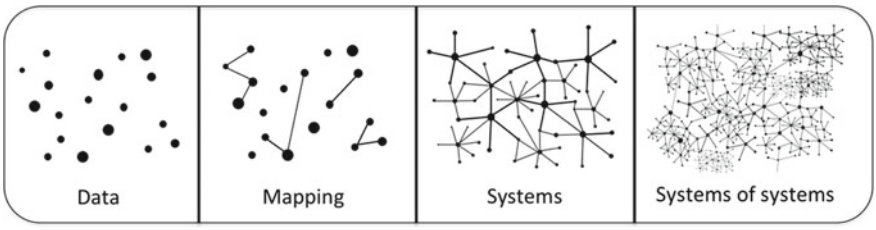


**Fig. 10.3** Levels of learning (adapted from dynamic skill theory)

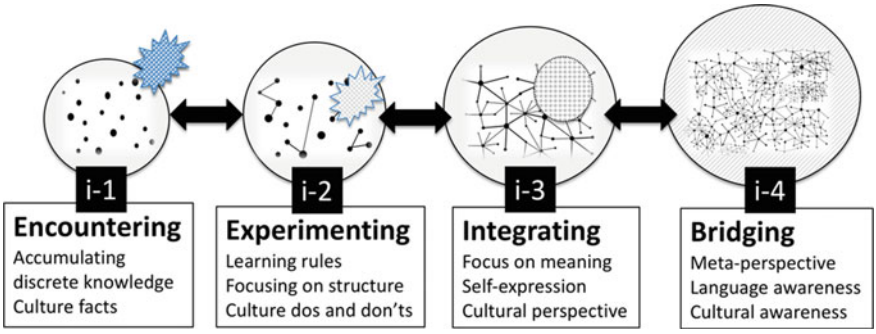


**Fig. 10.4** Four levels of linguaculture learning

the i-2 level—**experimenting**—is perceived in more structural or rule-based terms, as when students learn grammatical forms, or learn behavioral rules of etiquette in foreign places. At the i-3 level, **integrating**, the focus shifts to a more holistic and creative experience of language, as when learners gain fluency and a more developed sense of foreign language self. Cultural learning at the i-3 level involves a fundamental insight of ethnorelativism, with an increasing understanding that one's own cultural view of is only one of many. At the i-4 level, **bridging**, one gains intuitive awareness and gains the ability to raise one's understanding to a more meta-level of analysis and reflection. This progression is explored in more detail in Chap. 11. Figure 10.4 brings these elements together into one visual representation.

## 10.7 Four Levels of Complexity

The key element of these four levels is their increasing level of *complexity*. Complexity theory aims to "account for how the interacting parts of a complex system give rise to the system's collective behavior" (Larsen-Freeman 2008, p. 1). From the perspective of complex systems, the levels of DST are not simply a linear progression, in which one skill is built upon another in a mechanical way. Each level represents a new level of complexity and a higher level of functioning. New skills emerge from the interaction of lower level skills as a complex whole that is more than the sum-total of its parts. For example, the skill involved in being a creative chef involves much more—it's more complex—than the ability to follow many recipes. Similarly, being a fluent speaker of a language is more complex than being able to make correct sentences. And, knowing how to read people's intentions in a foreign environment is more complex than having knowledge of etiquette rules. DST helps us make sense of these increasing levels of complexity.

To get a sense for this progression, consider the collection of abilities required to learn to cook—or at a smaller scale, to prepare an omelet. Cooking an omelet is not simply a single skill—it's a collection of other skills that must be combined

in a meaningful way. It requires, first of all, a set of individual skills (single set), such as the ability to crack open an egg, turn on the fire, or grate cheese. It also requires that those skills be connected together (mapping), as when one cracks open an egg, whisks it in a bowl, heats up the pan, and then pours the egg into the pan. Once these linked skills, or procedures, are mastered, one starts to see making an omelet in holistic terms (system)—as one dish that you know how to make. This is the point at which creativity truly comes into play. Systematic knowledge allows for self-expression and individual variation—you may create unique omelets that differ from the omelets of others—even as they conform to the expectations of what an omelet is. They have a predictable structure yet are individualized.

For all its complexity, the ability to make an omelet is only one subset of a much broader skill—the ability to be a good cook generally (system of systems). Being a skilled cook requires more than the ability to follow many different recipes and make a variety of dishes. Good cooks are able to create new recipes and "play" with food creatively. They are aware of how ingredients interact, have an understanding of cooking processes, knowledge of different types of cuisine, and so on. In this way, the more complex skill of cooking draws on the mastery of multiple domains that each contribute to the overall whole. Thus, cooking (systems of systems) is exponentially more complex than the ability to create a single dish (system). There are so many factors involved in cooking at this level as to allow for infinite creative possibilities. At this higher level of complexity, knowledge of cooking is experienced at a meta-level—concerns reach beyond the success or failure of any individual dish.

## 10.8 Emergence

The DMLL represents learning as reaching higher levels through a process of self-organization, or *emergence*. At a certain point, interconnections go through a phase shift—they start to work together as a higher order whole. This process is not simply a matter of accumulating sufficient knowledge. Rather, more complex forms of functioning *emerge*—they change levels of functioning in a process of self-organization. This may be experienced as "getting the hang of something" or "losing oneself in communication" or simply "having a feel for how things work" without a need for conscious thought. Systematic knowledge functions holistically, so that it is no longer experienced as a collection of subskills, but as a single higher level skill. For language learning, this involves fluency and using language creatively without thinking consciously about structures. For cultural learners, this may involve the ability to see behavior within the larger context of another worldview. Such systematic knowledge can be built upon as well—one system can be learned in relation to other systems, until a system-of-systems level of knowledge emerges. At this level, we see beyond our personal experience and gain a meta-awareness of the domain. It is at this level that a language learner becomes a language teacher, and that cultural learning goes beyond binary cultural comparisons. According to DST, this final level is not the end

point of development—it builds onto other tiers of even more complex functioning (Fischer and Bidell 2006; Fischer 1980).

## 10.9 Universal Learning Processes

It may seem odd to compare language or cultural learning to making an omelet and learning to cook. But DST reminds us that language and culture learning are complex domains that can be understood in relation to universal learning processes. In terms of pedagogy, DST helps us see that linguaculture learning is not a single process that builds upon itself in a linear fashion—it's not like memorizing the dialogue to a movie. It involves levels of complexity, each of which requires different approaches to learning. To continue with our cooking example, someone who is learning to cook needs practice with particular cooking skills (singular data), but this must build up to include cooking processes such as following a recipe (mapping). Furthermore, it helps us see that the following set procedures can only take us so far. Sooner or later, we need to break through to a more holistic, creative level of ability (systems), in which we don't rely on recipes, but have internalized the knowledge necessary for creative self-expression. At the highest levels (systems of systems) we start to gain a meta-understanding of cooking as we expand the domains of our knowledge with, say, different cuisines or different philosophies about food.

## 10.10 Levels Not Stages

The levels of the DMLL are not *stages*—they don't involve graduating to a higher ability and not returning. It's not the case that once we reach a certain level of learning that we never go back to lower levels. Rather, the DMLL describes cognitive complexity at a given moment, in a particular context, and for a particular domain. Thus, even a fluent speaker of a foreign language, who has no trouble functioning at the i-3 level in everyday conversation, may become uncertain and struggle to express herself when speaking about unfamiliar topics. They may need to look up new vocabulary (i-1) or consciously think through the sentence they are making (i-2). The DMLL is domain specific—we function at higher levels only within the parameters of our specific knowledge. Or, to give a cultural learning example, while someone may learn to function well in a new cultural environment, (i-3), if they then travel to an unfamiliar cultural setting, they will no longer be able to do so. The levels of the DMLL are, themselves, dynamic, and we move between them depending on the demands of a particular context. It's also true, however, that functioning at higher levels makes it easier to reach that state again. Someone who has learned a second language has an advantage of learning a third, and someone who has lived abroad before is better prepared for another stay in a new foreign community.

## 10.11 The Phenomenology of Learning

The DMLL helps us understand the phenomenology of learning. That is to say, each level of complexity *feels* different to the learner, and the DMLL provides a set of signposts that give hints about this developmental process. Beginning language learners, for example, often have a naïve understanding of how involved and difficult it is to really master a foreign language. They may say they want to learn to "speak like a native" or estimate that after taking classes for a year or two that they will be fluent speakers. Cultural learning also involves a developmental process of increasingly sophisticated intuitive understanding as well. Naïve cultural learners—those with little or only shallow foreign experience—will perceive cultural understanding in simplistic terms. They may use simplistic categories to make sense of cultural difference, as when someone refers to all people who look different as "foreigners". They may feel that "knowing about the world" involves having factual knowledge about foreign places. They will have trouble conceiving of more complex levels of intercultural understanding, such as the ability to look at a situation from more than one cultural point of view. In this way, the levels of the DMLL provide a schema for making sense of the developmental progression of cultural learning.

This evolving experience of learning is not unique to foreign languages and cultures. Any time we acquire complex skills we go through a similar process of awkwardly attempting to gain subskills, practice, and integration of those skills, and use of those skills at higher levels of competence and creativity. This is often accompanied by changes in the way that we talk about the activity. When we say "I am learning to play tennis", we imply a piece-by-piece process of mastering elements of the game. When we say, however, that "I play tennis", we are describing tennis as a natural part of who we are—we are, in effect, saying "I am a tennis player." In a similar way, "learning to play music" is a qualitatively different experience from "being a musician". The difference is in the degree to which we can use these skills as a natural extension of who we are. By drawing attention to the phenomenology of learning, the DMLL provides educators with a way to compare and contrast levels of language and culture learning.

## 10.12 The DMLL as a Developmental Roadmap

The roadmap to learning provided by the DMLL is useful in a number of ways: (1) it helps us move beyond the notion that language and culture learning are fundamentally different processes; (2) it provides a way to think about a learner's level of development at a given point in time; (3) it acts as a guide to pedagogy by helping us develop activities that create the conditions for the emergence of higher levels of complexity; (4) it acts as an awareness building tool by providing learners with a roadmap for the road of learning ahead of them; (5) it helps create a more learner-centered pedagogy because it focuses our attention on the inner processes of learning,

rather than simply behavioral performance; (6) it provides a way to move beyond mechanistic views of language learning; (7) it helps us move beyond overly simplistic, stereotypical understandings of cultural patterns; (8) it reminds us of the highly psychological nature of language and culture learning; (9) it is simple, intuitively obvious, and describes learning across multiple domains, which makes it easy to relate to and flexible to apply; (10) it is grounded in an empirical understanding of cognitive processes, and thus can be enriched or modified based on new findings.

The DMLL is not intended to replace more detailed theorizing about second language acquisition, and is not intended as an evaluative tool. Rather, it is intended to help language and culture educators go beyond constricting dichotomies about language and culture learning, to conceive of language and culture learning in similar terms, and to plan pedagogy accordingly. The ways that it can be put into practice are discussed in more detail in Part 3.

### *10.12.1 Intuitive Knowledge*

The DMLL emphasizes the development of intuitive knowledge (Chap. 7) that emerges as we internalize and integrate more complex knowledge. An emphasis on intuitive knowledge has pedagogical implications. It prioritizes the development of mastery, rather than simply adding to the total sum of knowledge. The feeling of mastery and cognitive fluency is a sign that deep learning has occurred, and that new knowledge is being integrated into mental systems. It implies we should help learners develop a feeling of fluency early in the learning process, rather than trying to accumulate a huge body of knowledge that can't be easily applied. In a beginning language class, for example, it may not be necessary to learn 15 color words, since 5 color words may be enough for learners to start applying that knowledge.

An emphasis on intuitive knowledge also prioritizes experiential learning. It emphasizes insight (making mental connections and integrating knowledge) over perfect recall of information. It deemphasizes verbal explanation in favor of experience and pattern recognition (puzzles, diagrams, illustrations, demonstrations). Deep learning needs to engage multiple levels of self, so use of drama, debate, role play, and other forms of experiential learning is encouraged. The emphasis on intuitive knowledge also highlights the embodied, and thus psychological nature of linguaculture learning. We need to be open to language and culture learning to develop intuitive knowledge. Above all, the notion of deep learning emphasizes the processes of inner change and development, rather than simply behavioral performance.

### *10.12.2 Culture Learning Objectives*

The DMLL does not describe an ideal endpoint (e.g., intercultural awareness, intercultural communicative competence) to cultural learning. Just as no individual can

have perfect knowledge of a language, no individual can have perfect cultural knowledge either. The DMLL focuses, instead, on the levels of increasing complexity and sophistication that result from cultural learning. In this view, *cultural learning entails an increasingly complex intuitive understanding of diverse cultural patterns, and an increased ability to interpret behavior relative to differing cultural worldviews*. Thus, cultural learning is an ongoing process that always has the potential for expanding understanding to higher levels of complexity. There will always be new niches in cultural ecosystems, new cultural communities to learn about, new patterns to recognize, new tasks to challenge ourselves with, and new people to relate to. By way of example, someone may have highly sophisticated intercultural understanding, yet never have applied it to the challenge of managing a business, or in the context of religious belief, or mental illness, or sports.

Cultural understanding can be more superficial (conceptual and explicit) or more deep (intuitive and implicit). Advanced learners have more sophisticated (complex—relating to more contexts or domains) cultural and intercultural intuitions, but there is no end point to cultural learning. Even highly sophisticated interculturalists can always find new domains of knowledge to integrate into their understanding of cultural phenomena. Put most simply, the goal of cultural learning according to the DMLL is a more sophisticated and nuanced intuitive understanding of culture and cultural difference—one that allows us to gain a holistic understanding of new cultural worldviews, and learn to function within them. Developing deep cultural understanding leads to a more intercultural sense of self. This can be talked about in terms of the "bridge person"—someone who can act as a linguistic and cultural go-between (Fig. 10.5). Becoming an intercultural bridge person requires deep understanding of cultural difference and other cultural viewpoints. A bridge person is comfortable in a position of dynamic betweenness, participating in more than one linguacultural community. The four levels of the DMLL can be seen as a way to develop and intercultural self that can play that bridging role.

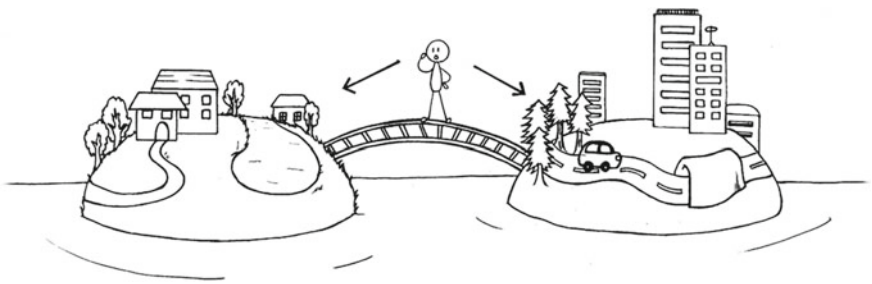

**Fig. 10.5** The cultural "bridge person"

### *10.12.3 The Experience of Cultural Difference*

The levels of the DMLL reflect how an individual experiences cultural difference. At the i-1 level, for example, cultural difference may be experienced in terms of simple facts—black and white statements that are accepted as reality. The person who encounters cheek-kissing greetings, for example, might reacts by saying *These people are touchy-feely*! The cultural difference is described as simple fact (i-1)—drawing a singular conclusion about cultural difference. If, on the other hand, they conclude that *It's customary for people here to greet by kissing on the cheek* are making a more sophisticated judgment. They have interpreted the behavior situationally—in situation X people here do Y. This constitutes a rule of thumb to interpret behavior, and implies a greater ability to relativize the difference they have experienced. It amounts to a form of rule-based thinking—i-2 mapping—in which we try to understand things in terms of predictable cause-and-effect terms. We find this approach to intercultural understanding in etiquette guides and lists of dos and don'ts for visiting foreign places.

This rule-based understanding of cultural difference is more cognitively sophisticated than reducing everything to absolute judgments and facts. It does not, however, take into account the contextual complexities of cultural behavior. Kissing on the cheek is not simply a ritual behavior with a fixed meaning in a fixed situation. There may be subtleties that an outsider won't notice at first glance—for example, it may be expected between men and between women, but not with someone of the opposite sex. It will exist in relation to other expectations, such as how much physical contact is considered normal, feelings about personal space, the level of emotiveness, expectations about friendship and intimacy, gender roles, and so on. Cultural patterns are complex, dynamic, and must be judged contextually. Ultimately, they cannot be reduced to simple cause-and-effect rules. At the i-2 level of experience, however, these larger patterns have not yet been perceived or understood.

The i-3 (systems) level of experience represents a major step toward a more ethnorelative and complex understanding of cultural difference. At the i-3 level, it is increasingly recognized that behavior must be understood in the context of broader cultural expectations and worldview. In effect, it's recognized that kissing on the cheek is part of a differing cultural reality that has its own internal cultural logic. At the i-3 level, people tend to explain cultural difference in more dynamic and systematic ways, as when saying "Kissing on the cheek is common in this country—the communication style is very expressive, and people feel it's important to show affection." This shows a much more nuanced and holistic view of culture, and shows that the person has managed to enter more fully into the perceptual world of this community. At the i-3 level, there is a sense of gaining an insider's perspective, and of learning how to use cultural expectations in your own way.

The i-4 level of cultural learning represents another major leap in intuitive understanding. At the i-3 level, cultural learners are focused primarily on understanding and entering into another cultural world. They want to know the cultural "system" of a particular community, or within a particular context. A British student spending

a year abroad in Portugal may spend their time learning the ins and outs of life in Lisbon, improving their Portuguese, hanging out with local friends, and gradually becoming more of an insider—someone who feels at ease interacting in this new cultural context. This same person, however, may later take a job in Kenya, or work with people from many different countries. Suddenly, they are faced with a new level of intercultural complexity. Making sense of these broader patterns of multiple cultural communities requires a meta-level understanding (i-4 systems of systems) that brings together the understanding of different cultural communities into a higher level form of cultural understanding. Insights at this level tend to be relatively abstract, as they represent high-level complexity.

Intercultural understanding at the i-4 level may involve an understanding of superordinate categories of understanding—cultural insights that reach beyond any single cultural context. For example, Hall (1976) describes cultures in terms of context—high context communication and communities involves a high degree of shared knowledge and implicit understanding. This insight allows you to recognize this pattern in a variety of different contexts, and represents a cross-cultural category that allows for a greater understanding of cultural difference generally. When used within the context of i-4 understanding, conceptual categories such as collectivism and individualism can provide useful tools to understand the culture at a highly complex level. When such categories are used in overly simplistic ways, however—Elbonians are collectivistic—they represent lower levels of intercultural understanding. The same concept can be understood or experienced in very different ways, depending on the intuitive complexity of the individual. The DMLL provides us with an interpretive guideline to makes sense of these different developmental levels.

## 10.13 Creative Mastery

One important measure of deep learning is our ability to express ourselves through a new medium (a new domain). Skilled musicians develop their own style of playing and express their unique musicality; good cooks don't only follow recipes, they create unique dishes that reflect their own tastes. This creative mastery is what allows us to both express our unique self and interact with others. Mastering a musical instrument gives an entry point into a community of musicians, just as becoming a skilled cook provides a way to connect through food. Similarly, using a new language creatively, to express oneself and relate to others, is a deeply satisfying accomplishment. Cultural learning too teaches us not only how to get along in foreign environments—it provides us a whole new cultural world to explore and participate in. As we gain creative mastery, patterns that were once foreign to us become the substance of our being. The idea of mastery does not imply perfect knowledge. Rather, it means that a domain of knowledge can be used as a creative medium. We master a foreign language when we use it comfortably and creatively to express ourselves in our own unique way. Likewise, as we gain deep intercultural understanding, we gain the ability to function smoothly and creatively both within and between different cultural worlds.

**Levels of learning** The DMLL encourages educators to focus on an ongoing process of change and development, rather than ideal outcomes, such as intercultural awareness, or speaking like a "native". This inner process of change is what makes language and culture learning meaningful. With this in mind, the next chapter will focus on the different levels of the DMLL. It will look at some of the implications for understanding learner development, and for pedagogy.

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# Chapter 11
# The DMLL as a Roadmap to Learning


**Abstract** This chapter describes the roadmap to learning as described by the DMLL. It looks at the different levels of learning that lead to a more *linguaculture self*, the subjective sense that foreign linguaculture patterns are increasingly embodied, and experienced as a natural part of the self. The DMLL assumes that developing the learner's linguaculture self is an important goal of language and culture pedagogy. A distinction is made between performance, and the development of the learning self. The notion of *self* is contrasted with the notion of *identity*. According to the DMLL, the experience of the self changes as learners develop new linguaculture intuitions. The development of the linguaculture self is described in terms of the four levels of encountering; experimenting; integrating, and bridging.

## 11.1 A Roadmap to Learning

The DMLL provides a roadmap that describes the evolving relationship between the learner and the foreignness of a new linguaculture. This reminds us that learners don't simply gain information and skills, they *have a relationship with* a new language and/or new cultural worlds. We must set aside deeply ingrained habits of mind, integrate, and creatively apply complex knowledge of foreign domains. This can be likened to an epic journey, on which we set out with an instrumental goal—to speak a foreign language; to learn about foreign cultures—and end up transformed by the experiences we have along the way. As we embody new ways to communicate and make sense of the world, we *become* a foreign language speaker and an intercultural bridge person.

Evidence for this transformative process can be found in the evolution of the learning experience itself. Beginning language learners typically have only a simplistic understanding of what it means to learn a foreign language. They may glibly say they are going to learn to "speak like a native" (something that verges on the impossible), or assume the key to fluency is knowing lots of vocabulary words. They may naively think that living in a foreign country will let them naturally "pick up the local lingo". Similarly, naïve cultural learners experience cultural difference in more simplistic ways—they make ethnocentric, overly broad or stereotypical judgments,



J. Shaules, *Language, Culture, and the Embodied Mind*,
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such as saying that people from country X are shy, backward, dishonest, and so on. They cannot easily look at a situation from a different cultural perspective, and make simplistic or stereotypical judgments about cultural difference, saying, for example, that *Tibetans are spiritual* or *Germans are rational*.

The DMLL assumes that these simplistic ideas are the natural starting point for linguaculture learning. They are not a sign of moral failure or personal naivete. Rather, they simply reflect a lack of experience. Bennett (1993) refers to this in terms of *differentiation*, the mental categories that we use to make sense of our experience. As we gain experience with a given phenomenon, our mental categories are enriched and we make distinctions that we didn't previously. This can be found in any domain—a casual fan of music will not be able to speak of harmony with the same precision as a trained musician, for example. This process is often experienced intuitively as expertise or having a feel for something. A skilled gardener develops a *feel* for how to help plants grow that is grounded in rich experience. The levels of the DMLL describe the process we go through as we develop these deeper, more expert abilities.

This chapter describes in more detail the DMLL's four levels of learning. This is intended as a sort of roadmap to learning. It can help educators plan pedagogy, and provide learners with a clearer path forward. For example, language learners often have little sense for how to manage their learning. They may manage to put sentences together (i-2) but feel frustrated by their lack of fluency—thinking that simply by learning more vocabulary words, they will become fluent. The DMLL can help them understand that fluency emerges as we experiment and attempt to use language creatively, rather than as mechanical pattern practice. It can help them see that a lack of motivation may not be a personal failing on their part, but a natural psychological resistance to the foreignness of the new language. The learning roadmap provided by the DMLL gives learners a way to look at learning that encourages learner autonomy and a feeling of ownership of the learning process.

### *11.1.1 Performance Versus Development*

The DMLL describes linguaculture learning in terms of developmental complexity—the inner state of perceptual differentiation. This contrasts with thinking about progress in terms of behavioral outcomes—the knowledge we can demonstrate and the things we can do. The Common European Framework of Reference (CEFR) (Europe 2011), for example, adopts this behaviorist stance by describing language ability in terms of communication tasks, such as the ability to express a viewpoint or deal with everyday situations. This focus on behavioral outcomes is also found in the use of the word *competence*, as when we talk about linguistic competence, communicative competence, or intercultural competence. Such terminology emphasizes effective action in the world. It also promotes the idea that successful learning can be measured externally. It emphasizes doing, rather than being.

A behavior-oriented view of progress, however, downplays the developmental aspects of learning. While it may be useful for measuring learning outcomes, it is less useful for understanding learning *processes*. From the deep learning perspective, learning happens *within* the learner (and between learners). Learners engage with new knowledge (outside), start to internalize and embody it (inside) and then become increasingly able to use it out in the world (outside). This experiential process is complex, and involves different levels of learning: encountering, experimenting, integrating and exploring. This complexity is largely invisible. An apparent struggle to perform can, for example, be indicative of an active learning process. When learners are stuck in silence attempting to recall a word, or when they puzzle over foreign behavior or a turn of phrase, they may look passive or incompetent yet be deeply engaged in learning. Conversely, learners may parrot a dialogue in a foreign language—providing the appearance of competence—without much learning happening at all. They may learn cultural behaviors and etiquette—practicing the use of chopsticks—without the development of deeper intercultural understanding. That is to say, they are competent, but only in a shallow or limited way. Overall, behavior is an imperfect indicator of the inner developmental processes. The DMLL focuses on this hard-to-quantify inner process of learning.

### *11.1.2 The DMLL and the Linguaculture Self*

The DMLL proposes that the developmental processes of linguaculture learning can be understood in terms of the *linguaculture self*—the changes in our experience of self in relation to a the foreign linguaculture patterns being embodied. Put simply, the deeper learning is—the more complex and embodied its patterns are—the more those patterns are experienced intuitively as part of the self; the more they can be used creatively; the more they become a medium of individual self-expression. In this view, both language and culture learning should lead to an experience of self as increasingly masterful and creative in new linguistic and cultural domains. We gain the ability to be ourselves in a new language, and in new cultural contexts. This is experienced as increasing mastery—both the inner fluency of smooth cognitive processes, and the outer fluency of smooth interaction and relating. At higher levels of mastery, knowledge becomes so embodied that we cease to be aware of it—we simply feel in our element.

Developing a linguaculture self requires more than simply feeling comfortable with a foreign language or context. Some people feel comfortable walking the streets of a country they know little about, or interacting with only a smattering of the local language. In effect, they are comfortable with their outsider's status, or comfortable with limited communication ability. Developing a linguaculture self, on the other hand, implies that the linguistic system or cultural frameworks that felt foreign previously, are now experienced as a natural extension of the self. This involves the ability to shift between different modes of communicating and perceiving, and the subjective sense that one has gained multiple ways of acting and being. This process

happens in relation to both language and culture learning. Learning a new language, we develop a foreign language self, and as we learn from intercultural experiences, we develop a more intercultural self.

Everyone is familiar with this process in broad terms—when we are new to an activity it feels awkward to us, yet as we gain mastery, it feels more natural. Eventually, it may be experienced as an extension of the self. An experienced driver, for example, does not think consciously about turning the steering wheel or stepping on the brakes while driving. The car is experienced holistically as an extension of the self. When someone who has only driven an automobile learns to ride a motorcycle, they must develop mastery of riding skills that lead to a new experience of being a motorcycle rider. Similarly, the difference between *learning to play the guitar* and *being a musician* relates not only to one's level of skills, it relates to having internalized musical mastery—to have *become* a musician. The DMLL reminds us, then, that internalizing new domains of knowledge involves an evolution from more consciously monitored *doing* (at lower levels of ability) to *becoming* (as we become more comfortable) to *being* (as the new domain is deeply integrated into the self).

**Identity and self** The DMLL distinguishes between the notion of *identity* and that of *self*. These terms are similar and overlapping, and are "used in a bewildering diversity of ways" and point to "large, changing and amorphous phenomena that defy hard and fast definitions" (Ashmore and Jussim 1997, p. 5). Still, they can be divided broadly into one category referring more primarily to individual experience (self), and another referring more centrally to one's presence in society (identity). The DMLL is more primarily concerned with self than with identity. Because these terms are overlapping, however, and because language and cultural learning also impact our identity, and our perception of the identities of others, it's important to explore these competing terms.

Identity has been defined as "a set of meanings that define who one is when one is an occupant of a particular role in society, or claims particular characteristics that identify him or her as a unique person" (Burke and Stets 2009, p. 3). Self, on the other hand, "starts with the body", and "exists 'inside,' that is, somewhere not visible to physical inspection" and is constructed out of meaning (Baumeister 2005, p. 247). In this way, to "know oneself" implies the ability to make sense of the essential elements of one's own experience. Identity is closely related to the labels that we use to define and categorize people, including ourselves. When I say "I'm an American" I am labeling myself as belonging to a particular category of people that share similar qualities of Americanness. Identity is sometimes related to social realities that we have little control over—someone who carries a Thai passport is identified legally as Thai. But we can also lay claim to identities, as when I saw "I am Christian" or "I am a surfer". Of course, people may have different ideas about what it means to be a "real" Christian or surfer, and we may dislike the labels that people use to identify us.

The DMLL does not speak to the concerns of identity in intercultural contexts—for example, the need to avoid labeling others stereotypically. These are important issues, but are considered beyond the scope of the model. This work focuses more

primarily on inner learning processes as it relates to the experience of self. This refers to the psychological territory within our personal and cultural boundaries. Self is the feeling that something is a part of me—as opposed to being part of some other. Self is described as a territory because it is experienced in terms of being relatively inner versus outer—as when we talk of *core values* or our *inner self*. It is assumed that as one's sense of self changes and develops, one's sense of identity (how we label ourselves and others) may change as well.

Our sense of self is rooted in the body. We have an instinctive imperative to maintain the safety and integrity of our physical body—we flee danger and seek comfort and nourishment. Self extends beyond the purely physical, however, to the psychological and social. We share with social animals a desire to affiliate with others of our kind, and to keep our distance from individuals that are unfamiliar or threatening. As humans, our sense of territory is extended to the psychological and symbolic realm as well. When you question my core values, I feel attacked. When foreign things enter into my life spaces, I feel invaded. We can experience an idea as a threat, or as alien to our way of thinking or looking at the world.

The idea that language learning involves change or development of the self is not new. Lantolf (2000) refers to the way in which language learning can "lead to the reformation of one's mental systems, including one's concept of self" (p. 5). Kramsch (2000) describes language learning as "a dialogic process of sign making, exchanging, and interpreting that construct the self as it constructs the other" (p. 133). Ros i Sole (2016) argues for a language pedagogy that focuses on:

> the personal aspects of the language learning experience and the possibilities it affords for the transformation of the self. This view of language learning claims that languages and cultures are not abstract and timeless phenomena; rather, it claims that languages come in different versions and sizes to fit the bodies of their owners and their circumstances. According to this view, languages are not only 'acquired' and 'learnt', but also 'lived' (Introduction, Abstract, Kindle Loc. 89).

This notion—that language learning is a personal process of creation of self is fundamentally different from the more transactional, information-centered idea that language learning entails the acquisition of a neutral set of symbolic tools that allow us to express ideas and do things in the world.

Dornyei (Dornyei and Ushioda 2009) describes language learning in terms of multiple selves that guide our behavior—our ideal self, and our ought to self—which guide the formation of our future self. This formulation recognizes the complex nature of self, yet downplays the ways in which self is fundamentally rooted in our evolutionary imperative for self-preservation (Wilson 2002). Our instinct for self-preservation is rooted in the body, and a threat provokes a response in the sympathetic nervous system—increasing our blood pressure and provoking a surge in norepinephrine and adrenaline, among other psychological changes. Because the psychological territory of the self is experienced as an extension of our physical body, we also respond to symbolic threats much as we do to physical ones (Harrison et al. 2015).

## 11.2 The Phenomenology of Linguaculture Learning

It's not easy to integrate foreign elements into our experience of self. It requires that we set aside habitual patterns and embody new cognitive structures. The DMLL describes these changes in phenomenological terms—how they are experienced from the learner's point of view. The four levels of learning—i-1 (encountering), i-2 (experimenting), i-3 (integrating) and i-4 (bridging)—represent an evolving experience of learning. The self evolves as more complex cognitive structures emerge. Development is often not smooth—it may involve long periods of seeming stasis and developmental plateaus, but also may be punctuated by sudden insights and breakthroughs.

The DMLL provides a set of signposts that can help us understand this dynamic process. In the description below, for purposes of clarity, each level of learning is described separately in idealized or archetypical form. This can create the impression that a learner may be *at* a given level of learning. It's never that simple. These descriptions do not represent absolute stages of learning that one reaches and then supersedes in a linear fashion. Rather, we go back and forth between these different levels of experience according to the learning demands of the particular moment.

### *11.2.1 Encountering (i-1)*

The DMLL's first level of learning is an *encounter*—a process of discovery and familiarization. Learning is experienced as an accumulating of individual experiences, skills, and pieces of knowledge. In a low-level language class, for example, a student may be expected to memorize phrases, practice sounds, learn words, and so on. These tasks involve discrete elements of knowledge—bite-sized bits of foreignness, as it were—that are simple enough to be understood, accepted and internalized. Learning at this level seems straightforward—an accumulation of knowledge and ability that can be quantified in systematic ways. Cultural learning at this level may, similarly, be quantified as a series of facts or the idea that needs to be remembered or understood about a region or country. Cultural encounters may be experiential as well, as when we try a foreign dish, or walk the streets of a foreign city for the first time. This sort of knowledge can also be experienced as discrete and cumulative—How many countries have you visited? Which dishes have you tried? How much do you know about that country? How well can you use chopsticks? The discrete and rather granular nature of this sort of learning is represented in the varying dots within the circle in Fig. 11.1.

The subjective experience of i-1 learning revolves around its newness—it is foreign to our habitual ways of understanding and acting. This can be experienced in both positive and negative ways—we may enjoy trying to pronounce foreign words and phrases; be fascinated with the sights and sounds of a foreign city; be intrigued by individual interactions we have with cultural others. For language learners, in particular, however, this interest can be difficult to maintain, since there is so much

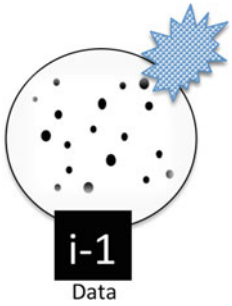


**Fig. 11.1** Encountering (i-1)

that needs to be learned. The easiest way to present knowledge at this level is to decontextualize it—providing, for example, lists of vocabulary words to be studied. In theory, this provides a base of knowledge that can be put to use later. In practice, however, it's difficult to learn discrete elements of knowledge in isolation through brute force of memory and will. It can be discouraging for learners to feel witness to an endless parade of new words they are expected to remember and produce. The ten words I remember for the quiz today may be mostly forgotten in a week. Learners may flip ahead through their textbooks and wonder how they will ever remember everything.

Similarly, a traveler may be thrilled with the food, temples or castles they experience on their first few days abroad, only to find themselves succumbing to cultural fatigue. They may seek out familiar foods and comfortable surroundings, and find that famous places start to blur into each other—*Let's see, it's Tuesday so this must be Istanbul*. In addition, being ignorant in unfamiliar settings can be stressful—we may find people rude, the transportation system inefficient, or find local facilities lacking. Despite feeling rewarded for their efforts, travelers may be quite happy to get back home. In both cases, the foreignness of new linguistic and cultural knowledge can seem like too much, even though no single element is overwhelming in and of itself.

For an inexperienced low-level language learner, it's difficult to imagine how it might feel to speak a foreign language, or what is required to make progress, other than accumulating more information. They may not see that higher levels of learning await—levels involving not just memorization and repetition, but also creation and self-expression. They may feel that forgetting a word indicates failure. Recall is difficult, however, because scattered bits of knowledge have not yet coalesced into more functional chunks that can be manipulated or connected together in meaningful ways. For such learners, language learning can feel like a long walk toward a distant mountain on a poorly marked trail. They know only that they are supposed to put one foot ahead of another. It's hard to see the road to learning, and easy to feel one's progress is limited.

At the level of encountering, cultural knowledge is experienced as discrete and factual: *Paris is the capital of France; In China people eat rice; The pyramids are in Egypt.* For such learners, learning about culture is experienced as knowing or

not knowing—the facts about a particular place or cultural community. Those facts are fundamentally experienced as foreign to the self, either in positive terms (foreign people and places as exotic—foreign in an interesting way) or negative terms (foreign people and places as something to resist and denigrate). This includes a tendency to see things in absolute terms—as how things are, or the facts on the ground in a foreign place. There is little relativistic thinking at this level.

Because explicit knowledge of language and culture inhabit largely separate realms of knowing—vocabulary lists have little to do with the facts and figures of foreign places—the split between language and culture learning can be particularly pronounced at the i-1 level. The language–culture connection can be illustrated, however, by discussing how difficult it can be to translate culture-laden words, by using interactive practice, by sharing with learners the teacher's stories of language and culture learning. For younger learners, in particular, learning experientially through games, songs, and skits provides a way to go beyond the view of language as words to know, and culture facts about foreign people and places.

### *11.2.2 Experimenting (i-2)*

As learners accumulate linguaculture knowledge, a new pattern of cognition and experience emerges. They start to make connections through a process of cognitive mapping—the individual elements that they have learned start to be combined in more complex ways, as when combining vocabulary with grammatical patterns to form sentences, or gaining an understanding of larger chunks of more natural language. Their learning incorporates more structural elements of language, such as verb tenses or sentence structures. The learner begins producing language on her own. Still, patterns have not yet been mastered and integrated into a larger whole. Learners often consciously construct a sentence in their head—their attention is often taken up by a focus on linguistic form, rather than communication for its own sake (Fig. 11.2).

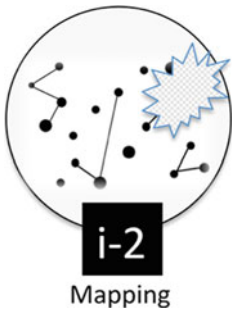


**Fig. 11.2** Experimenting (i-2)

As learners gain foreign cultural experience, they also begin to relate to cultural patterns in more sophisticated ways. Whereas encountering (i-1) focuses on cultural information and facts, experimenting (i-2) is more contextualized and situational. Learners start to think of foreign cultures in terms of rules—dos and don'ts, etiquette, social expectations, and so on. They assume that there is a "right way" to do things in foreign places, and that foreign people act as they do as a direct result of their foreignness, e.g., "Japanese bow because they are respectful." This represents a level of complexity above simple factual thinking. It recognizes that there are reasons for people's behavior, and attempts to make sense of foreign patterns. Yet this type of thinking can also lead to overly broad generalizations or stereotypes, such as "Americans are friendly because America is a land of immigrants." Such reasoning is not necessarily wrong, per se. Rather, it is limited because it doesn't incorporate the complexity of cultural communities. Foreign behavior is viewed in rather superficial terms, as though people's actions can be understood by learning what is causing it.

At both the i-1 and i-2 level, learners feel that they are objectively judging foreign behavior, yet may, in fact, be projecting their own unconscious cultural judgments—a reflection of unconscious ethnocentrism. At this level of learning, ethnocentrism is a normal—though not necessarily desirable—part of social cognition (Amodio and Mendoza 2010; Bennett 1993; Dreu et al. 2011). Learners may also believe that behavior can be explained by individual variation, and that cultural difference is thus unimportant—what Bennett refers to as *minimization* (Bennett 1993). What they fail to notice is that individuality is most fully expressed in the context of shared community. In an unfamiliar cultural setting, we will have trouble judging whether behavior is a result of individual personality or cultural background. We have to understand what "normal" behavior is in order to fully appreciate individual qualities. Getting beyond this point requires a quantum leap in understanding—learners must see that culture is a complex and evolving system of meaning, and not simply a factor in determining behavior.

### *11.2.3 Integrating (i-3)*

As learners integrate linguistic patterns more fully into their cognitive systems, they reach a point at which they start to use the foreign language more holistically—as a functioning whole system. No longer are they constructing utterances piece by piece. Rather, language forms have been internalized and have coalesced into systematic knowledge (a functioning interlanguage) that goes beyond the sum total of its parts. Language use becomes less focused on form and more focused on meaning. The system itself becomes a medium for creativity and self-expression, rather than something that must be practiced piece by piece. At this point, learners may lose themselves in the act of communicating, as opposed to simply practicing its forms (Fig. 11.3).

For language learners, reaching the integration stage is associated with gaining fluency, an increased level of confidence, and the ability to express oneself more

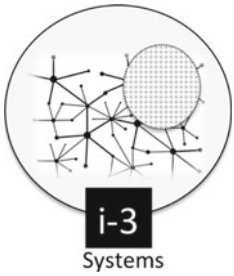


**Fig. 11.3** Integrating (i-3)

freely. This doesn't happen all at once, of course. Learners may reach i-3 when discussing simpler topics but struggle with more challenging content. Some learners manage to operate at i-3 even with relatively limited vocabulary, while others may have lots of knowledge of words and forms, but not reach the critical mass of functioning needed for i-3 processing to emerge. These learners may feel stuck, since learning more words, or studying language structures, may not help them make the quantum leap to this higher communicative level.

Cultural learning too, can reach the level of systematic understanding associated with i-3. Perceiving foreign cultural patterns in terms of a dynamic system, as opposed to a collection of rules or facts, represents a paradigm shift in cultural understanding. At i-3, learners see that other worldviews have an internal logic all their own. They represent a different standard of what's normal. Going from i-2 to i-3 permits learners to make a shift to a more ethnorelative view—the ability to suspend judgment and understand foreign cultural communities in more relative terms. They may also adapt their behavior to better match these new ways of looking at things. At the i-3 level, it's understood that there's no contradiction between sharing a culture and being a unique individual. Learners don't expect everyone from a particular cultural community to act in the same way. At the same time, they recognize that everyone is influenced in important ways by her cultural background.

The i-3 level of cultural understanding tends to be marked by cultural relativism. One sees that culture affects our view of social reality, and that multiple perspectives—all of which are normal to those who are habituated to them—are possible. This helps learners see that their own cultural perspective is just one of many. In some cases, perspective shifting may involve a cultural identity dilemma, in which learners feel caught between contrasting cultural worldviews. In order to go beyond this, they need to reach an even higher level of intercultural understanding—bridging.

### *11.2.4 Bridging (i-4)*

The i-4 level of learning is exponentially more complex than i-3. It is the level at which a tennis player becomes a tennis coach, a cook goes beyond recipes, and a

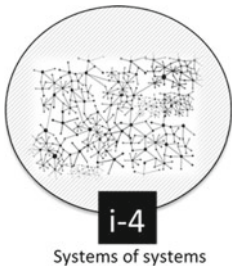


**Fig. 11.4** Bridging (i-4)

language learner becomes a language teacher. It involves a broadening of perspective beyond one's individual experience—a system-of-systems view that incorporates a more meta-perspective. While i-3 thinking is focused on the particulars of a particular system, i-4 thinking involves principles that can be applied more widely. A language teacher at the i-3 level, for example, may give advice based on personal learning experience, since that is how they themselves have found success. At the i-4 level, however, a teacher understands that there is too much variation in language learning to define a "best" approach. Rather, they look for principles or guidelines that describe effective ways to approach learning challenges more generally (Fig. 11.4).

The i-4 level of cultural awareness goes beyond the comparison of any two contrasting cultural worldviews. It seeks organizing principles to understand cultural patterns at a meta-level. While this may include making generalized statements about patterns of cultural difference, it avoids cause-and-effect thinking. For example, at the i-2 level, someone might think that patterns of cultural difference are the cause of behavior, and say, for example, that *Japanese act that way because they are collectivistic*. At the i-3 level, learners realize that labels like this are only meaningful when understood as part of a larger worldview—not in a cause-and-effect manner. At the i-4 level, learners extend their learning beyond the patterns found in a particular community, and may consider different ways of construing the concept of collectivism, for example, to see which conceptualization has the most explanatory power.

While i-4 (bridging) is described as a form of meta-cognition, DMLL assumes that such knowledge is often intuitive, and may be hard to articulate. Complex cognition can involve a greater ability to explain one's own knowledge, but as new knowledge is internalized, it becomes more automatic and may actually sink beneath conscious awareness. Highly skilled language users may forget the grammar lessons from when they first started studying. Similarly, experienced interculturalists may not have a ready definition for the concept of culture, yet be highly competent interculturally. The complexity of their knowledge is evidenced in their *expert intuitions*—their ability to manage complex patterns creatively and without a need for conscious calculation (Klein 1998).

Levels of learning self and cognitive complexity are task and situation dependent. Learners go back and forth between these levels depending on the demands of the current situation and task. A learner may be able to make small talk effortlessly (i-3 integrating), but struggle to put together complex sentences when talking about politics (i-2—experimenting) or need to use a dictionary when talking about an unfamiliar topic (i-1—encountering). Some tasks (such as translating an article from one language to another) may require processing at every level, as the translator learns new words (i-1), constructs sentences (i-2), reads for overall meaning (i-3), and reflects on different ways of translating something (i-4). Skilled learners learn to switch smoothly between different levels of processing.

## 11.3 Implications for Pedagogy

Looking at language learning in terms of developing the linguaculture self provides a set of principles that can guide pedagogy. These ideas have been discussed in some detail throughout this book, but are summarized here briefly with a brief discussion of pedagogical implications.

**Language learning is intercultural by its very nature and is itself a form of cultural learning** Language learning and cultural learning both require the integration of foreign patterns deeply into the intuitive mind, as complex bodies of knowledge are embodied and put to creative use. Understanding this helps us go beyond the idea that language learning involves knowledge and skills (acquisition) and cultural learning involves higher forms of perception (awareness). The idea that language learning involves the acquisition of an information system, or a symbolic code is, however, deeply embedded in the metaphors commonly used to understand language learning. Moving beyond this idea requires a subtle but profound adjustment on the part of educators. There is a tendency to think that culture is something that one can add to language classes. The DMLL suggests, however, that while language can be taught as purely an informational system, doing so encourages superficial learning, and overtaxing of conscious learning processes.

**Language and culture are embodied** Both language and culture are integral to our feelings, life experiences, backgrounds, and sense of self. Linguistic meaning is grounded in lived experience, and thus is cultural by its very nature. Cultural knowledge is an integral part of our perceptual processes and influences cognitive styles, emotion, and identity. This reminds us that language and cultural learning are highly psychological endeavors. An embodied cognition view reminds us that language learning should be thought as something experiential, not as simply a form of information processing. It also reminds us that pedagogy must take into account both conscious and unconscious cognitive processes.

**Deep learning restructures our intuitive mind** Language and culture learning both involve a restructuring of socio-cognitive processes—a sort of reprogramming of the intuitive mind. This requires more than a bit-by-bit accumulation of knowledge or skills. Learning happens at higher and higher levels of complexity. Our job as educators is to create conditions that encourage this process. The four levels of the DMLL help us understand how to identify levels of learning, and plan pedagogy that fits learners' level of development.

Language and culture learning is psychologically challenging and intense—it can easily provoke adaptive stress responses. Sojourners experience this as adjustment stress and culture shock. Language learners experience this as loss of learning motivation, feelings of inadequacy, and critical judgment. Conversely, overcoming these challenges is deeply meaningful and potentially transformative. Aim to develop fluency early in the learning process. Provide holistic, rather than discrete practice. This requires experience and experimenting, not just repetition and overlearning.

**Intercultural understanding is intuitive** According to the DMLL, cultural learning is not the development of an advanced form of cognition. It is primarily an intuitive process of pattern recognition—the ability to interpret behavior and understand social expectations. As we gain the ability to do this in foreign settings, we may gain the ability to shift cultural frames of reference. This does not depend on conceptual understanding, but is gained through a process of experiential learning that leads to insight—both regarding our own inner cultural programming, and the patterns we find out in the world. Because intercultural understanding is primarily intuitive, we may find experienced interculturalists with little understanding of culture-related concepts, yet who have a high degree of intercultural insight. Conversely, certain people may have sophisticated knowledge of cultural concepts, yet simplistic cultural intuitions. This implies that teaching cultural concepts doesn't necessarily lead to intercultural insight. Cultural learning can be surface (conceptual, analytic) or deep (intuitive, insight-based). Deep learning is marked by "a-ha" moments, the ability to combine disparate elements of knowledge, and to use knowledge spontaneously. Deep learning is fundamentally constructive, it involves pattern recognition and creation of new abilities and understandings.

**From theory to practice** Chapters 7 through 11 have presented an overview of the DMLL. The test of a learning model, however, is its ability to be useful in dealing with the practical concerns of educators. While this work has largely been concerned with conceptual description, the following three chapters focus on how the DMLL has been put into practice. Chapter 12 presents an overview of the key insights of the DMLL in the form of frequently asked questions. Chapter 13 focuses on the DMLL in the context of language education, while Chap. 14 focuses on intercultural education contexts. This is followed by a concluding chapter that encourages educators to find their own ways to make language and culture learning more deeply engaging and transformative.

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# Part III
# Practice: A User's Guide to the DMLL

This section discusses some of the pedagogical implications of the DMLL. Because educational contexts are so varied, however, it's not possible to give lists of activities, or a set of does and don'ts. With that caveat in mind, this section is divided into three chapters. Chapter 12 introduces the key ideas from this book in a FAQ format. Before deciding what to do in the classroom, it's necessary to think through some basic questions about language and culture learning. Chapter 12 acts both as a review of ideas from earlier chapters, or as a quick-start guide for teachers who have skipped ahead. Chapter 13 focuses on the DMLL in the context of language learning. It is intended for teachers who are more focused on language learning objectives, but who want to do so from an intercultural perspective. Chapter 14 focuses on the DMLL in the context of culture learning. There is then a brief concluding chapter and some suggestions for further reading.

# Chapter 12
# FAQ of a Linguaculture Learning Approach


**Abstract** This chapter acts as a review of the key ideas covered in sections one and two. It is written as a series of key questions that need to be explored if we are to integrate our understanding of language and culture learning: What is linguaculture? How do you define culture? What is the intuitive mind? What is deep learning? How are language and culture related? What is the goal of cultural learning? How can I integrate language and culture learning? How is the linguaculture approach different? What is the role of the teacher? How can non-L1 language teachers incorporate culture? What culture content can be included in language learning? It describes cultural learning goals in terms of intuitive cultural knowledge and preparation for intercultural encounters.

## 12.1 From Theory to Practice

Good pedagogy requires experimenting with new activities and fresh approaches. This book seeks to encourage experimentation in language and culture pedagogy. Providing concrete advice, however, is tricky. Learning is complex, and thus there can be no single activity, method, or principle that will fit every situation or set of priorities. A teacher of basic French in a Russian high school faces different pedagogical challenges than a teacher of English at an elementary school in China. There can be no one-size-fits-all set of activities or guidelines for language and culture pedagogy. Beyond this, each educator brings their own range of experiences, personality, interests, and personal strengths to their work. Teaching is highly individualized, and there can be no "best" or "perfect" teacher because each person, each group of students, each term, indeed, each class meeting, is unique. Because of this complexity, no book can provide precise instructions for what to do in the classroom.

A book can, however, provide food for thought. This is the goal of learning models as well—they challenge us to think through the assumptions about learning that we bring into the classroom. They provide an approach to understanding learning—a mental framework, or conceptual lens, that we can bring to bear on the work that we

The orignal version of this chapter was revised: Figure 12.4 has been replaced with the updated version. The correction to this chapter is available at https://doi.org/10.1007/978-981-15-0587-4_16.



J. Shaules, *Language, Culture, and the Embodied Mind*,
https://doi.org/10.1007/978-981-15-0587-4_12

do. For a model to be successful, however, it has to meet three criteria: (1) appropriateness, (2) comprehensibility, and (3) adaptability. First of all, it must be appropriate to the practitioner—it must be focused on actual needs, and not simply an abstract treatise that is disconnected from practice, or attempting to solve a problem that the teacher doesn't face. It also must be comprehensible—it has to be straightforward enough to be grasped intuitively, and thus provide some insight or inspiration. Finally, it must be adaptable. That is to say, there must be ways to adapt the model to particular contexts. It can't simply be a rigid set of instructions.

This chapter focuses on comprehensibility. While the thinking behind the DMLL has been explained in some detail throughout this work, it's not always easy to weave it together into a coherent tapestry of understanding. This chapter presents FAQs that educators may have when thinking about how to approach language and culture pedagogy. It acts as a distillation of the ideas presented up until now—a restatement in brief form. These questions are intended not simply to explain the ideas in this book, but also as a way for readers to compare these answers with their own particular perspective. This process is seen as a building block for the next two chapters, which focus more specifically on applying the DMLL in particular contexts—Chap. 14 focuses on the DMLL and language teaching, and Chap. 15 focuses on the DMLL in intercultural education. There is then a concluding chapter that acts as a sort of mission statement—an invitation to work toward deeper, more transformative approaches to language and culture pedagogy.

## 12.2 What Is the DMLL?

The Developmental Model of Linguaculture Learning (DMLL) is a pedagogical framework that helps educators see language and culture learning as complementary, rather than separate. It looks at language and culture learning in terms of developing a linguaculture self—as foreign linguaculture patterns are internalized and embodied, they become a natural part of our mental operating systems, and a way for us to express our unique self. The DMLL has four levels of learning which can be represented as in Fig. 12.1. For an overview of the thinking behind the DMLL, see Chap. 2. For a more detailed description, see Chaps. 11 and 12.

## 12.3 What Is Linguaculture?

The term *linguaculture* highlights the deep connection between language and culture. At the level of conscious thought, language and culture are often considered separately—the academic study of culture (anthropology), for example, is largely separate from that of language (linguistics). At deeper levels of mind, however, language and culture are closely related. That's because the linguistic meaning in our minds is grounded in our lived experiences, including the associations, values, and expectations of culture—it's not simply a mental dictionary of symbols. Learning a new language involves entering into a new world of cultural experience. Even for

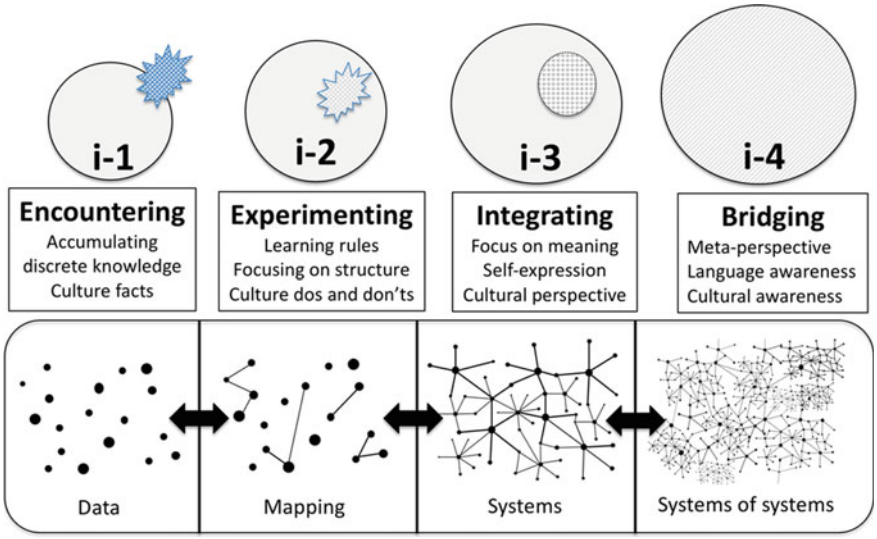



**Fig. 12.1** The developmental model of linguaculture learning

English, which is used in many cultural contexts, learning a foreign language requires that we become familiar with, and adjust to, foreign ways of communicating and seeing the world. Learning a foreign language requires intercultural experience—we must learn something that is fundamentally *foreign* to our usual way of thinking and communicating.

The language–culture connection can be illustrated as in Fig. 12.2. The top half of the circle represents more conscious thought and knowledge. There is a solid line between the two top halves of the circle, which illustrates the traditional split between language and culture. The bottom half of the circle, on the other hand, represents our unconscious intuitive knowledge of language and culture, with arrows showing the close relationship between the two. Language both reflects and shapes the shared experiences of its speakers. One goal of this book is to encourage learning that focuses on the deeper, more intuitive processes found at the bottom of the circle.

## 12.4 How Do You Define Culture?

The term culture is used in many ways. The DMLL looks at culture simply as shared patterns of meaning. If I reach out to shake your hand, you know what that means because you have previous experience with handshaking. Culture emerges from community. When people interact, it generates shared *customs*—in which situations should we shake hands? It generates *values*—what is a respectful way to shake hands? These are grounded in largely hidden *assumptions* about how the world works.

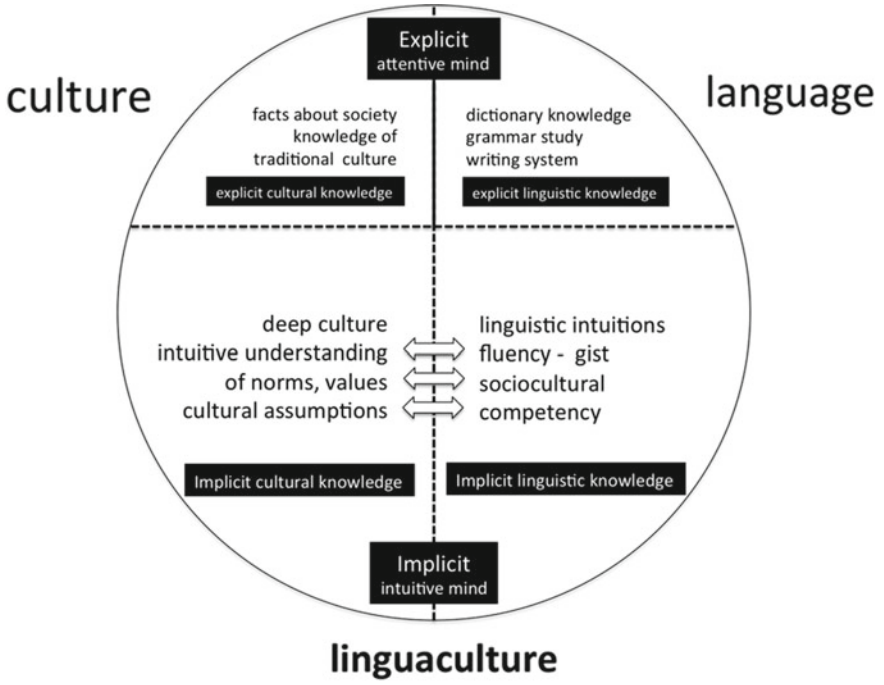



**Fig. 12.2** Surface and deep language and culture

Culture is both generated by and reflected in, human interaction. Those patterns are *embodied* within us (the cultural "programming" that shapes our thinking, behavior, and identity) but also *embedded* in the patterns found out in the world (social expectations, shared values, and assumptions). For language and culture learners, it's important to distinguish between surface culture (temples, architecture, and ceremonies) and deep culture (the hidden, unconscious cultural intuitions that we rely on to guide our everyday lives). Surface culture learning can be done with a textbook, but deep culture learning requires gaining insight into new patterns of thinking and communicating. That involves experimentation and experience.

It's common to talk about culture in terms of identifying and belonging ("*I'm not Spanish, I'm basque!*"). Many people are concerned that such cultural labels can be stereotypical or inaccurate. While dealing with, and avoiding, stereotypes is an important part of cultural learning, this work is focused more on the way our mind learns new cultural patterns. This approach focuses on our intuitive understanding of culture—having a feel for what is expected in a given situation, and being able to guess how others will interpret what one does. To understand how we learn new cultural patterns, it's good to understand something about unconscious cognition. In this book, more conscious cognitive processes are referred to as the *attentive mind*, while our unconscious autopilot is referred to as the *intuitive mind*. For more about that, see Chap. 7.

## 12.5 What Is the Intuitive Mind?

The intuitive mind is the mental autopilot that guides us through the day and handles routine tasks. It's referred to as intuitive because it has knowledge that we don't have conscious access to. Intuitive knowledge is something you know, without knowing how you know. Although we rely on intuitive knowledge all the time, we often don't notice it. When interacting in a familiar environment, we have a sense for how to be polite, how to address others, what topics to avoid, how things work in everyday life, and so on. In a foreign country or situation, our intuitive autopilot can't function normally. That's why some people experience culture shock.

Understanding the intuitive mind and how we develop new intuitions is important for language and culture educators. Language education often focuses on language forms (grammar, vocabulary), and neglects the deeper side of learning. Traditional language education engages the focused attention and analytic powers of the attentive mind (conscious thought processes). But intellectual knowledge and analysis are not enough to gain intuitive knowledge. That requires the creation of complex cognitive structures. This requires the involvement of the attentive mind—focused study, conscious analysis—as well as the intuitive mind, which engages in an active process of experimentation, trial-and-error learning, and experiential learning. When all goes well, our attentive mind and intuitive mind work together seamlessly—we see this when students are in a state of flow, totally caught up in the activity at hand.

The intuitive mind is the seat of motivation. This is one reason that language and culture learning are psychologically demanding—they disrupt our normal way of thinking, acting and being. Chapter 9 talks about the psychology of language and culture learning. Language and culture learning involves integrating foreign elements into the self, and resistance to that is seen as a normal part of the process. This helps us go beyond the idea that learners are either motivated or unmotivated—we understand that language and culture learning is highly demanding. When we fail, we may feel something akin to trauma. When we succeed, however, we expand our sense of self—we *become* a foreign language speaker and intercultural person. This is deeply satisfying and helps create intercultural understanding.

## 12.6 What Is Deep Learning?

Deep learning refers to the process of developing new forms of intuitive knowledge. Surface learning engages primarily the intellectual capacity of our conscious thought processes (attentive mind). Deep learning, however, involves internalizing complex knowledge that functions together in a dynamic, yet systematic way. For language learners, this is often experienced in terms of developing fluency—the point at which language "comes together" in a functional and creative way. For cultural learners,

deep learning is associated with getting a feel for the importance of cultural difference, and the ability to look at a situation from more than one cultural point of view.

Deep learning is not, however, just about developing a set of skills. Because cognition is so embodied—such a deep part of who we are and how we experience the world—intuitive knowledge is experienced as a part of the self. That's why language learning leads to *becoming* a foreign language speaker, and culture learning leads to *becoming* a more intercultural person. This process is developmental—it isn't just a gradual additive process, it involves increasing levels of socio-cognitive sophistication as more complex and elaborate neural networks develop. This is represented on the top portion of Fig. 12.1. Deep learning changes how we experience the foreign language and culture. A naive language learner has a naïve view of language learning, just as an inexperienced interculturalist has a naïve view of foreign cultures.

## 12.7 How Are Language and Culture Learning Related?

It's common to assume that learning a foreign language is somehow different from other forms of learning. It's often treated as a linguistic code to remember and understand, and/or a skill that must be practiced and performed. Cultural learning, on the other hand, is often talked about in terms of abstract idealizations, such as gaining intercultural awareness or competence. This leads many teachers to assume that they must choose between language practice on the one hand, and culture learning on the other.

The DMLL proposes that both language ability and (inter)cultural understanding are complex skills. A complex skill involves simpler abilities that combine to form a higher level ability. For example, knowing how to play musical notes on an instrument (simple skill) allows you to play songs (a more complex skill). Learning a complex skill requires a developmental progression from simple to complex. According to *dynamic skill theory* (DST), it's not enough to simply accumulate a lot of simple skills. Rather, simpler skills need to combine or come together in a series of shifts that are illustrated within the circles in Fig. 12.1. To better understand DST and the process of learning complex skills, see Chaps. 10 and 11. To better understand how these levels relate to language learning, see Chap. 12. To better understand them as they relate to cultural learning, see Chap. 13.

## 12.8 What Is the Goal of Cultural Learning?

Culture learning goals can be talked about in many ways. Learners preparing for a homestay in Berlin will have very different needs from an Indonesian studying English in a business school in Jakarta. The first rule of cultural learning, then, is to focus on the needs of particular learners. This book cannot provide guidance for

every culture learning situation. It does, however, discuss the process of cultural learning, and how that relates to language learning. The model in this book provides a way to understand the culture learning process. The four levels of the DMLL can be used to plan both language learning pedagogy, and culture learning activities as well.

This work looks at culture learning as an increasingly sophisticated understanding of new cultural patterns. In effect, we want learners to gain insights into patterns of culture—both within themselves, and in foreign situations and communities. These patterns are referred to as *deep culture*. Deep culture gives us a feeling for what is normal in a given situation, and allows us to predict how others will interpret what we say or do. Deep culture knowledge is primarily intuitive—we simply have a feel for it. We rely on deep culture in our everyday "normal" interaction. In foreign situations, and when speaking a foreign language, our normal sense for what things mean, and what is expected of us, must be adjusted. We have to gain new *cultural intuitions*, such that things that used to seem foreign start to seem normal. That doesn't mean we will always agree with, or adapt to those differences, but we will better understand that others can and do find them normal.

Culture learning is both culture specific and culture general. As we learn the shared expectations and the "rules of the game" in particular communities, we also discover certain larger cultural truths—lessons that can be applied to all intercultural situations. By experiencing cultural difference, we learn that every individual is cultural—we express our unique qualities through the medium of shared culture. This is parallel to the way that we use a language as a medium for self-expression. Language and culture are the "rules of the game" of living and communicating, and once they have been internalized, we use them to express our unique qualities. Some people mistakenly believe that sharing in a culture means that people act in the same way. Cultural knowledge is not, however, programming which controls us—it's a sense for how others will interpret what we do.

Having a sense of what is culturally normal for a particular community is referred to as *intuitive cultural understanding*. Having an intuitive understanding of familiar cultural patterns allows us to function socially. Gaining intuitive cultural understanding about a foreign community often leads to *intuitive intercultural understanding*—the realization that all cultural groups share distinct ways of making sense of things. As our intuitive cultural knowledge is reflected on and applied in our lives, we may also reach an even more sophisticated level of cultural knowing—*critical intercultural understanding*. Critical understanding involves the ability to reflect upon and conceptualize one's intercultural understanding in relation to different domains.

Some people are critical of using the word culture to make generalizations, as when we talk about "Tunisian culture"—implying that there is an essential cultural quality shared by everyone in Tunisia. This is certainly an oversimplification. Cultural groups have no clear boundaries and people participate in any number of different communities. At the same time, cultural learning is not dependent on defining a particular community. Cultural learning involves a process of recognizing new cultural patterns—coming to an intuitive understanding that there is a different system at work, and learning to make that system work for you. For those learning a language

as a lingua franca, such as English, with wide cultural variation in language usage, that process is very generalized and variable, but the same dynamic is present. The fact that culture is complex doesn't mean anything goes—it means we have to take the time to get a feel for the subtle, yet powerful ways that culture shapes human interaction. For a more detailed description of cultural learning, see Chap. 13.

## 12.9 How Can I Integrate Language and Culture Pedagogy?

It depends on your goals and your teaching context. Some teachers may be required to focus on language skills, but want to add a cultural element to learning. Some may be preparing students for a stay in a particular country. Some may be teaching a content course in the foreign language which focuses on cultural themes. Because learning goals vary so much, it's impossible for a single book to be a how-to guide. It is possible, however, to describe an overall framework for linguaculture pedagogy.

Broadly speaking, linguaculture pedagogy can be divided into four different categories, as seen in Fig. 12.3. Each represents a different degree of overlap between language and culture, and a different pedagogical focus. On the far left is pedagogy focused on linguistic forms—what might be considered traditional approaches to foreign language education. Next to that is *language-centered linguaculture learning*—this involves pedagogy that focuses on language learning outcomes, but has an element of cultural learning in the background. Learners are shown that language

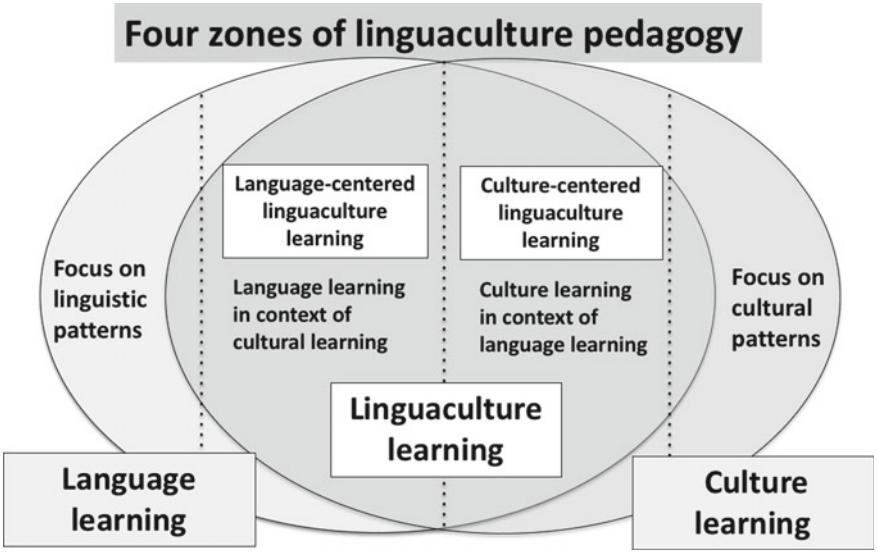



**Fig. 12.3** Four zones of linguaculture pedagogy

practice is part of a larger process of developing a foreign language and intercultural self. They are aware of the need to internalize increasingly complex linguistic and cultural patterns, such that it becomes a natural part of them. They also understand that language learning is a highly personal challenge that is different from other, more academic subjects. To learn more about this, see Chap. 12.

*Culture-centered linguaculture learning* (second from the right), focuses on cultural learning outcomes, but uses the target language as a medium of learning. This roughly parallels Content and Language-Integrated Learning (CLIL), though the learning goals are not simply an academic understanding of cultural concepts, but increasingly sophisticated intuitions about culture. This form of pedagogy can also be described as *insight-based pedagogy*—learning outcomes center on making mental connections, gaining awareness of intuitive knowledge, and recognizing cultural patterns in oneself and others. In includes a focus on the cultural aspects of language, and the psychological challenges of language learning. Learners are invited to see their culture learning in the context of language learning. Pedagogy is organized around the four levels of the DMLL. For a more detailed description, see Chap. 14. On the far right of Fig. 12.3 is *culture learning*. This refers to pedagogy that doesn't involve use of the L2 and is focused on culture-related learning objectives, typically in the L1.

## 12.10 How Is the DMLL Approach Different?

Traditionally, language learning is seen as a process that happens separately from cultural learning. It is often assumed that a foreign language is a sort of code or symbolic system, and that learning it is different or separate from other kinds of learning. The DMLL, on the other hand, borrows from our understanding of how the brain learns complex skills of all types—music, cooking, and tennis—and argues that both language learning and cultural learning involve fundamentally similar learning trajectories, from external to embodied, from simple to complex. Chapters 10 and 11 talks about this in more detail.

From the educator's perspective, there are some important implications to this unified view. This work argues that language learning requires a process of culture learning. Few people learn a language purely as an intellectual challenge. Learning a foreign language involves a disruptive/constructive process of internalizing foreign patterns of thinking, acting and being—i.e., cultural learning. This is a broad view that sees integrating foreign patterns into the unconscious mind as the essence of both language and cultural learning. Even learners of an international language, like English, must deal with foreign situations, learn to structure their thoughts differently, and change habits of body and mind. This touches us at deep levels of the self.

This unified view of language and culture learning has important implications. Most fundamentally, language learning has psychological consequences that are similar to foreign experiences. In other words, learners react to the psychological demands of language learning and foreign experiences in similar ways. Chapter 9

examines this issue, and argues that language learners may resist language learning in a way that's similar to sojourners who have a negative reaction to foreign surroundings. Furthermore, just as foreign experiences can provoke curiosity and even personal transformation, so can language learning. This represents a new way to look at language learning motivation, which is also explored in Chap. 9.

If we see language and culture learning as being similar at deeper levels of the self, it provides new avenues to make a language–culture connection. One way to conceptualize this approach is the idea that the classroom itself represents a cultural learning community—a place where learners are provided with the opportunity to explore different ways of thinking and communicating. In the linguaculture approach, language learning is seen not simply as gaining knowledge, or practicing skills, but as a journey toward a foreign language speaking/using self. Chapter 13 introduces a four-stage approach to class planning grounded in this metaphor of travel and exploration.

## 12.11 How Can I Create a Linguaculture Classroom?

The idea of the linguaculture classroom treats language learning itself as an intercultural experience. This can be understood metaphorically by thinking about the door of the language classroom as marking a boundary into a zone of intercultural learning. From the moment that the teacher uses a foreign language within the class, learners are exposed to its foreignness; they face an adaptive demand, not unlike that faced by a sojourner visiting a foreign country. This view has important implications for pedagogy in a variety of areas. Most importantly, the L2 should be treated as a living language, not simply a set of vocabulary items and grammatical structures. This implies that language practice is oriented toward giving learners experience with the target language, rather than explanations. Learning activities that encourage meaningful communication, active participation, experimentation, and an emotional investment in learning are consistent with the linguaculture approach.

The notion of the linguaculture classroom also includes a concern for the psychological states of learners. Language practice is not simply an attempt to form correct utterances—it represents a new way to express oneself to the world. Teachers recognize that learners get nervous or stressed by attempting to do this, and should create a secure environment that encourages experimentation and a willingness to try new things. At the same time, learners need to understand that the stresses of foreign language practice are a normal part of learning, and that this can be viewed as a personal challenge. Broadly speaking, activities that engage learners at deeper levels of self—they are personally meaningful, not too hard and not too easy, allow learners to engage in genuine self-expression, and encourage experimentation—fit with a linguaculture approach. The foundational goal of the linguaculture classroom is to engage learners in a process of deep learning, and help them see how language practice activities fit into the bigger picture of developing their foreign language self. This can be done by introducing the four levels of linguaculture learning to students, and using this as a set of benchmarks to plan and talk about learning activities.

## 12.12 What Is the Role of the Teacher?

Traditionally, language teachers have been seen primarily as experts with extensive linguistic knowledge, and a talent for explaining this knowledge to learners. More recently, communicative approaches to learning have emphasized the teacher as someone who manages classroom interaction and encourages communicative practice. As represented in Fig. 12.4, the linguaculture approach recognizes the importance of expertise and classroom management, but it also seeks to go beyond the surface level of knowledge and skills, and engage learners at a deeper level. This puts an emphasis on the role of the teacher as coach—someone that inspires and makes demands, while providing the structured support needed for development. Good coaches not only design practice sessions, they help learners see the deep value of practice and increased mastery. At an even deeper level, learners face the psychological stress of language and culture learning. Teachers also need to be counselors who attend to their needs and help them grow as an individual. When learning is referred to as *deep*, it refers not only to the involvement of the unconscious mind—it also reminds us that educators are responsible for helping learners cope with the inevitable stresses of learning.

**Sample activity and materials – Levels of linguaculture learning**

**Goal**: Help learners understand different levels of linguaculture learning, so they can see that different activities focus on different levels of learning. Help learners become aware of their own level of learning.

**Activity Procedure**: To introduce the four levels of linguaculture learning, students are first shown a drawing that illustrates four learners, each with different ideas about how best to learn a language. Each person represents a different level of linguaculture learning. Learners are asked to guess which learners are beginners and which more advanced—ranking them from 1 to 4. The teacher may want learners to discuss the reasons for their choices. After this, the teacher shows how these four learners correspond to levels of language learning. They can also be used to show how different assignments or activities relate to these four levels.

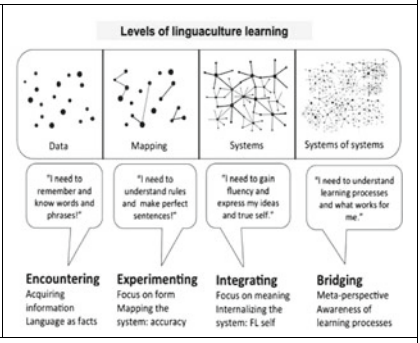




**Fig. 12.4** Teacher roles from the deep learning perspective

## 12.13 How Can Non-L1 Language Teachers Incorporate Culture?

Some teachers may feel that culture in the foreign language classroom is best left up to "native" speakers of the language. They may feel uncertain about cultural nuance, or may lack confidence using the target language themselves. This is a limited view. Try to think of cultural learning as a process, and not something that can ever be mastered. Educators who are teaching an L2 can be wonderful cultural learning role models. The linguaculture approach encourages educators to share their own struggles, triumphs and foreign experiences with learners. Educators who are teaching their L2 are often very good at anticipating the intellectual and psychological stumbling blocks learners face. This requires, however, going beyond the idea that the primary role of the teacher is to be an expert with perfect linguistic knowledge. The DMLL reminds us that no one—not even the most highly sophisticated L1 speaker, possesses perfect linguistic or cultural knowledge.

Educators teaching their L2 are encouraged to think of their own linguistic and cultural knowledge in terms of their relationship with the L2. Having positive feelings and curiosity about language and culture learning is critical to acting as a learning role model. From this perspective, feeling limited in the L2 is a challenging, but natural part of the learning process. Some L2 educators imagine that they lack confidence in the L2 because their knowledge is imperfect. This is not entirely true. A musician can still play original music with a limited mastery of an instrument, and novice athletes can get great joy practicing a sport. Feeling good about using an L2 is largely related to our ability to feel that it's an extension of who we are, and that we can be ourselves when using it. Conversely, educators who teach their L1 without ever having learned a foreign language have an important disadvantage—it's hard for them to have a deep understanding of what learners are going through.

## 12.14 What Culture Content Can Be Included in Language Learning?

Many teachers think of cultural learning in very narrow terms, such as learning about history, geography, food or traditions. Some think primarily in practical terms of cultural etiquette, such as how to use language respectfully, and the "proper" way to introduce oneself. Still others think about culture learning as some higher form of awareness or understanding—helping learners understand the importance of culture in everyday life, and respecting cultural difference, or avoiding stereotypes and judgment. Culture is such a broad concept, and learning contexts are so varied, that coming to any definitive list of cultural learning goals is simply not possible.

The biggest challenge to determining cultural learning goals is the complexity and depth of culture itself. The things that are easiest to teach—facts about a country, the names of common foods, for example—lead to individual bits of knowledge

and simplistic understanding. Yet even more sophisticated information, such as history, geography, and social structures—can feel superficial. That's because we process such knowledge at the conscious level of concepts and abstract thought. Such knowledge may be more complex, but it doesn't necessarily make it more useful. In fact, someone with extensive intellectual knowledge, but little actual experience, may overestimate their own understanding. Theoretical knowledge is no substitute for lived experience.

**Intuitive cultural knowledge** Just as conscious knowledge can be relatively simple or complex, so can intuitive knowledge. Intuitive knowledge comes from experience and experimentation. Figure 12.5 shows how the DMLL can be used to make sense of different levels of cultural knowledge. The top shows represents how *conceptual knowledge* can be relatively simple (individual **facts (i-1)**, **rules (i-2)** to more complex and abstract (overall **explanations** (i-3) and **abstractions** (i-4). This developmental sequence relates to conscious knowledge, and the ways we might present cultural information to be studied or analyzed.

The bottom of Fig. 12.5 shows that intuitive knowledge also develops from simple to complex. Intuitive cultural knowledge is felt at a deep level of self—that's why even a short trip to a foreign place can impact us deeply. An individual **experience (i-1)** provides us with a sense of *I have been there* or *I've seen that*—this creates the impression that we have seen *how things really are*, or *the facts on the ground*. As we gain more experience, however, we start to develop a more contextual understanding—we learn more systematically how things work: patterns of behavior. We experience this in terms of **expectations (i-2)** about how to behave or what people will do—when you enter the house, you should take off your shoes. These new patterns may start to feel normal to us, providing the sense that we know how to get along and feel at ease in that environment.

Knowing how things work, however, doesn't automatically help us understand how people think—the reasons people have for doing things in a certain way. This requires that we do more than observe behavior and learn to predict it. We also need to understand the cultural **perspective (i-3)** of that community—common attitudes,

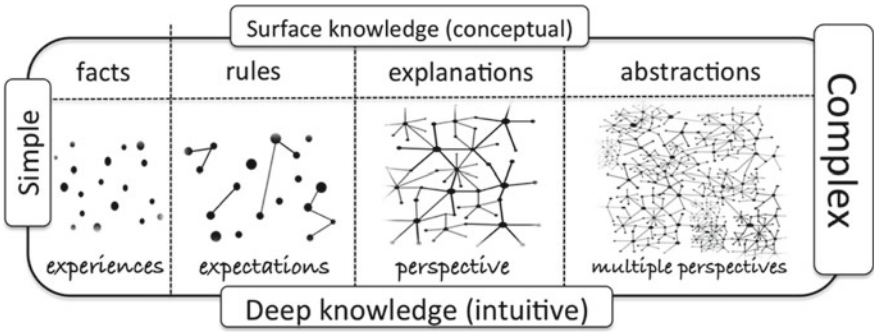



**Fig. 12.5** Surface (conceptual) and deep (intuitive) cultural knowledge

values, assumptions. With practice, we gain the feeling that we can shift our point of view—we can look at things more from an insider's perspective. We have learned to adopt a new worldview. If we go through that process multiple times—as with people who have lived for long periods in different cultural worlds, they may gain a highly complex intuitive understanding that comes from integrating **multiple perspectives (i-4)** into an overall understanding.

## 12.15 How Does Language Practice Relate to Cultural Learning?

One way to answer this question is to think of language practice as preparation for intercultural encounters. Often, there are things that language teachers are already doing which encourage cultural learning, even if teachers don't think or talk about it explicitly in that way. That can include:

- Talking about travel experiences
- Explaining cultural nuances of words
- Giving tips for real-life language usage
- Sharing stories from your language learning
- Talking about regional varieties of the language
- Explaining key cultural terms (culture shock, etc.)
- Discussing taboos or customs
- Talking about cultural differences
- Having students explain/introduce their country or home
- Emphasizing the cultural elements of language
- Using materials with cultural themes
- Having students talk about travel plans/experiences
- Encouraging students to express personal point of view
- Talking about cultural lessons you have learned
- Discussing the connection between language and culture
- Helping students reflect on their language learning
- Focusing on building a strong sense of community in the classroom
- Using drama so learners can experiment with new forms of expression

Such activities can help learners see that the kind of experimentation, openness, and flexibility needed for language learning is also needed for cultural learning and dealing with foreign situations. For example, the nervousness of giving a presentation in the L2 is similar to the stress of using the L2 in a foreign country.

## 12.16 An Integrated Perspective

The goal of the DMLL is to provide language teachers with an integrated perspective on language and culture learning. That doesn't imply, however, that teachers will do similar activities or approach their teaching in the same way. Indeed, every teacher has expertise and life experience that informs what they do. Every educator also has demands they must fulfill that are particular to their educational context. Some may need to focus primarily on narrow learning goals, such as helping to prepare for standardized tests. Others may want to add some elements of cultural learning into communication language practice. Still others may be teaching a course about culture, but doing so in the target language.

Despite these different objectives, all of these teachers can still have an integrated understanding of language and culture learning. The DMLL doesn't tell educators how to teach, or provide a "best" approach to language and culture pedagogy. It does not assume that all language teaching should include cultural learning goals. After all, there's nothing wrong with emphasizing one element of learning over another. It does, however, provide educators with a way to see how more narrow goals fit into the larger picture. This can help teachers better find deep learning solutions to their particular pedagogical challenges.

# Chapter 13
# The DMLL in Language Learning


**Abstract** This chapter explores how the Developmental Model of Linguaculture Learning (DMLL) can inform foreign language pedagogy. It points out that a linguaculture perspective doesn't require adding cultural goals to language education. Instead, language learning can be informed by a deep learning perspective, and guided by the four levels of the DMLL. These are described in terms of a roadmap to linguaculture learning. A four-step approach to course planning is introduced that conceptualizes language learning in terms of a journey, and in terms of having a relationship with the foreign language. Examples of activities using this approach are given.

## 13.1 A Linguaculture Perspective

This chapter seeks to support teachers who are focused on language learning goals, but who would like to bring a linguaculture perspective to their work. Many teachers are expected to focus primarily on linguistic ability. They may be required to use particular materials, or focus on particular skills. It may seem that this prevents a focus on cultural learning. If one is required to teach paragraph writing, or presentation skills, for example, how can we shift the focus toward cultural learning goals?

The linguaculture perspective does not, however, require that teachers add culture learning goals to their courses. Rather, it reminds us that language learning itself is a form of cultural learning. Language learning involves a deep adjustment to our normal way of thinking, acting, expressing ourselves, and making sense of people's behavior. It is a highly personal, deeply psychological process. We must deeply internalize a foreign way to be ourselves. It is the need to embody foreign patterns that makes language learning a form of cultural learning. With that in mind, this chapter discusses the four levels of the DMLL in turn, focusing on pedagogy, the psychology of learning, and the development of a foreign language self.

Sometimes, of course, focusing on the surface forms of language may meet student needs. If learners must pass a standardized test, for example, it may be practical to treat language as a code that learners must master to find correct answers. The linguaculture approach reminds us, however, of the limitations of doing this. Treating language



J. Shaules, *Language, Culture, and the Embodied Mind*,
https://doi.org/10.1007/978-981-15-0587-4_13

purely as an intellectual challenge can result in shallow learning that is practical in the short-term, but hard to sustain over time. To develop fully, new linguistic knowledge needs to be put to use, played with, internalized and embodied. For anyone seeking to go beyond surface learning, these inner processes need to be kept in mind.

## 13.2 A Roadmap to Linguaculture Learning

The DMLL acts as a roadmap to language learning. Pedagogy is conceived of as a form of scaffolding that allows learners to reach a higher level experience of the language. For example, a student who functions largely at the i-2 level of consciously constructing sentences will benefit from an activity that is structured to help them function at the i-3 level of creative fluency. As students gain experience with higher levels of functioning, they can learn to recreate that state on their own, and in a wider range of contexts.

There are two main uses of the DMLL in language classes: (1) introducing the four levels of the DMLL to students and (2) using the DMLL for structuring activities and pedagogy. Doing both of these things in tandem creates an overall unity of purpose and helps learners understand how individual activities fit into the bigger picture of learning. This can be thought of as a roadmap to linguaculture learning—using the levels of learning as a way to help learners understand their own learning. The notion of a roadmap is grounded in the metaphorical understanding of language learning as a journey.

As illustrated in Fig. 13.1, the DMLL can help learners visualize the language learning process. Within a few minutes, it's possible to provide learners with a new way to think about the psychology of learning (the foreignness that we must adjust to and embody—as represented by the circles) and the dynamic, complex nature of

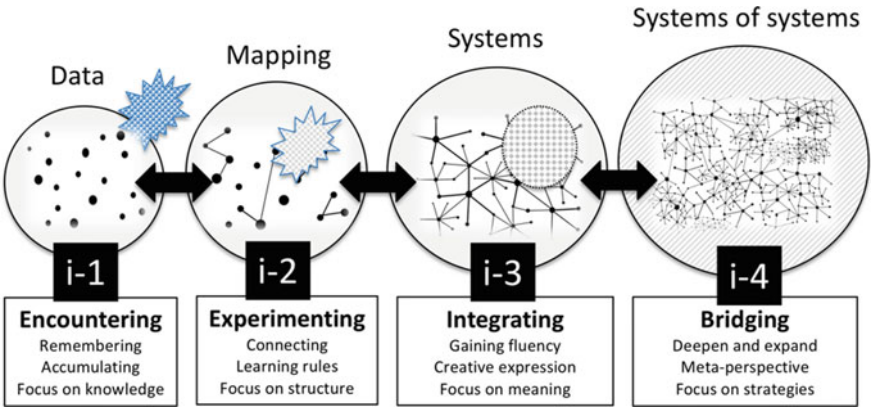



**Fig. 13.1** The developmental model of linguaculture learning

the linguistic knowledge we are trying to internalize (as represented by the networks within the circles). The arrows between the circles represent the fact that we are always moving back and forth between different levels of learning. Even the most advanced learner (i-4) may sometimes need to think through a sentence in their heads (i-2) or search for just the right word (i-1).

With just a bit of explanation, learners can grasp that this represents levels of learning. This provides them with a visual guide to the topography of learning—a sense for the road of learning and how to progress. Some learners have naïve views of how language learning happens. They may feel, for example, that by accumulating linguistic knowledge piece by piece, communicative ability will naturally emerge. Or, they may think of language learning simply in terms of imitation and repetition—a form of mental training similar to how one might strengthen a muscle. By helping them visualize the deep learning process, they will be better equipped to navigate it.

**Levels not stages** The four circles represent *levels* of learning, not *stages* of learning. A *stage* refers to reaching a point of more advanced development that one does not retreat from. When a child learns to walk, for example, they seldom go back to crawling as their main way of getting around. The levels of DMLL, however, refer to the level of cognitive complexity at a given moment in time. For example, even highly skilled speakers who easily function at the i-3 (fluent and creative) level of language use may, at times, need to look up a new word in the dictionary, which corresponds with i-1 (discrete information) level of cognitive processing. They may need to pause to work out a complex sentence "in their head" (consciously), something that is more associated with i-2 (experimenting and trial and error). Naturally, as we gain in proficiency, we will gradually function more frequently at higher levels of cognitive processing, but it's a misconception to think that one definitively reaches a level and doesn't go back. The DMLL is not intended to be used as a scorecard that measures one's linguistic ability. Rather, it's a description of different levels of processing which can guide both learning and teaching.

## 13.3 From Learning to Pedagogy

The author, teaching English as an international language in Japan, introduced the levels of the learning to learners at the beginning of the semester, asking them to judge how much of the time they spent at the different levels. Learners quickly got a feeling for their own level of English use and would say things like *I think I've never experienced i3!* or *I'm stuck at i-1!* or *I want to go from i-2 to i-3*. Throughout the semester, class activities, including homework assignments, were described in terms of the level of learning they were aimed at. When working with a reading passage, for example, learners might be told to: a) look over a list of keywords from that passage before reading (i-1), and then b) read the whole passage without stopping (i-3) and without worrying about things they didn't understand. Tasks that focused on grammatical structures, or editing written work, was presented as i-2 learning.

While these activities were typical of those found in many language classes, the DMLL helped learners get a sense of how what they were doing fits into the overall learning process. This made the purpose of activities clearer, helped them monitor their own learning, and empowered them to think more critically about their studies and practice.

As a teacher, the DMLL helps me reflect on whether activities reflect the needs and abilities of my students. For example, when students struggled to express opinions in a discussion activity, I realized that I had jumped too quickly from the i-1 level (reviewing key vocabulary) to the i-3 level (expressing oneself freely/creatively). Learners needed more structured support to succeed at the higher level task. I become aware that when I don't provide learners with the support they need, they experience their difficulty as a failure on their part. The overall impact on me as a teacher was to help me see that I tended to push learners too quickly to higher level tasks, without providing the necessary scaffolding.

When activities are well structured, they provide learners the opportunity to reach a higher level of learning than usual. During a conversation activity, for example, learners may go beyond the i-2 level of making individual sentences, and have an i-3 experience of losing themselves in communication. When this happens, they enter a flow state while using the foreign language. This experience is enjoyable, and helps learners gain confidence. And if they understand the different levels of learning, they are less likely to say things like *Well, the conversation/game/activity was fun, but I don't know if I learned anything.* In Japan, students often equate studying with learning—they think that if they aren't processing new information at the i-1 or i-2 level, that they aren't learning. The DMLL helps them make these distinctions, and see the value in "fun" fluency activities as well.

For teachers to make best use of the DMLL, they need to get an intuitive sense—a feeling for—how each level is experienced and manifest in learners. With practice, teachers can look at class activities, or assignments, or learner behavior, through the lens of this dynamic process. In order to help teachers develop a feel for how these different levels are manifest in practice, the following sections look at each level of development in more detail. While these levels are described separately, it's important to remember that these levels are not separate and discrete. They are not stages that we reach and never come back from. On the contrary, they are dynamic, and can change from moment to moment. It's hoped, however, that these broad descriptions provide a starting point for developing an intuitive grasp for the levels of the DMLL.

## 13.4 Encountering (i-1)

**Encountering the linguistic and cultural "other"** At the i-1 level of learning, a new language feels alien and unnatural. That may be experienced in a positive way—feeling that it's cool, for example—or it may seem awkward and hard. Language learning is seen primarily as words to be memorized and grammar to study, and learners rarely feel successful using the foreign language to communicate or express themselves.

They often see learning primarily in terms of acquiring new information—as a series of facts, or bits of information they must understand. They may feel overwhelmed by the sheer amount of information they are expected to absorb. The FL is seen as learnable through memorization, repetition and imitation, and learners may assume that language learning is not so different from learning information more generally—like historical dates, or the names of famous people.

There are some important limitations to an i-1 understanding of learning. Learning may wrongly assume that everything must be remembered perfectly before they will be able to communicate. They may feel frustrated because they easily forget previously studied items, and not realize that new information must be mapped together—connected to existing networks of knowledge—to be fully integrated into their minds. Teachers sometimes try to encourage this sort of mapping by suggesting that learners study vocabulary in context, or that they create sample sentences. These techniques are more than a memory aid. They encourage the kind of mapping that leads to more creative experimentation that happens at the i-2 level. Learners may also not realize that foreign words often do not have an exact equivalent in their L1. They tend to make one-to-one associations–*dog* = *perro* and cat = *gato*. They have trouble seeing that new information networks do not form linearly and that new information is not easily absorbed in isolation.

**The pedagogy of i-1 learning** To move beyond i-1, learners need to start systematizing their new linguistic knowledge. Pedagogy can encourage this process by helping learners see how the foreign language works, e.g., how linguistic structures can be formed, or how to make foreign sounds. Rather than seeing themselves as being passive vessels into which language is poured, learners need to see that they can take an active role in internalizing new information (through improved study methods, adapting language practice to their own learning style) and that they can use the new pieces of linguistic information in creative ways (to form sentences, have interactions, understand foreign music). Seeing language as something that can be manipulated and worked with, as something systematic, helps them move on to level two. As they approach i-2, the foreign language is experienced as something that can be worked out, applied, and used creatively. This helps them create a network of knowledge that functions independently of their L1 as they begin the construction of an interlanguage.

**The psychology of i-1 learning** Learning at the i-1 level means you are at the beginning of a long journey of learning. A bad experience can cripple learning far into the future. Learners may feel helpless, and have little sense for how they can move forward, other than to study individual linguistic items. New writing systems may seem impossibly difficult. Pedagogy should focus on demystifying the foreignness being confronted, and showing how it can be interesting. Maintaining motivation is critical because psychological resistance can interfere with the formation of the foundational knowledge necessary to move on to higher levels. Learners who get left behind will have tremendous difficulty catching up. There is a danger of losing motivation and not developing good learning habits.

**The i-1 foreign language self** At the i-1 level, learners often feel the FL is alien and perhaps exotic. This can be a double-edged sword. On the one hand, it can be exciting or cool to play with the sounds and forms of a new language. Younger learners, particularly, may enjoy learning songs or playing language games. They may enjoy getting to know foreign teachers, or hearing about foreign places. It's helpful if learners have positive associations with the cultural foreignness of the target language. Openness toward a foreign language can be more difficult for older learners. They may have no idea what it feels like to use a foreign language in real life, or feel uncomfortable making and deciphering the strange sounds of the new language. If, however, they are curious about the worlds of foreign experience, and feel they are making steady progress, they can more fully embrace the identity of being a learner of that language.

## 13.5 Experimenting (i-2)

At the i-2 level of learning, the FL is beginning to be experienced as something systematic that can be manipulated and applied, but doing so largely feels unnatural and difficult. Language learning may be seen in terms of rules or structures that must be mastered. For the first time, learners are being expected to not only take in new information, but also to restructure their thought processes. This takes great concentration and practice, yet may only yield occasional feelings of success using the FL for self-expression. At i-1, the FL is often seen as something to be remembered, whereas at i-2, learners start to see it as something to be understood and manipulated in a systematic way.

**The pedagogy of i-2 learning** Grappling with the systematic nature of the FL is a key challenge of i-2 learning. Learners may even feel they are moving backwards, since at stage one, they may have been learning to use set phrases such as "Nice to meet you." Or "Thank you very much" without an understanding of the underlying grammatical structures. At i-2, however, learners need to learn not only discrete chunks of information (words, phrases, and grammar rules) but also an underlying system for how those chunks are put together. Whereas i-1 learning is more purely imitative, level two learning can start to be creative. Learning language structures (grammar) is an important element of stage two learning. But studying grammar doesn't automatically bring learners to level two. Students who are at the i-1 level will see grammar simply as new information to memorize. Structural practice requires applying those rules in new ways, such that the result is greater than the sum total of the parts.

To move toward i-3, learners need to spend more time using what they know in creative ways. They need to start developing an intuitive feel for the language that comes from productive practice. They need to tolerate ambiguity, and accept that there may not always be an exact translation, or an easily understood reason for the way foreign language is used. As language forms are internalized, learner attention

needs to shift toward using language in a meaningful way, as a reflection of who they are. This means accepting that mistakes are a part of the learning processes, and that the feeling of discomfort that comes from taking such chances will be worth it in the end.

**The psychology of i-2 learning** At the i-2 level, learners should begin to understand that there are two types of language practice—that which is focused on accuracy (not making mistakes, deciphering exact meaning) and fluency (smooth processing and the ability to produce language creatively, whether it has mistakes or not). This can create frustration because there's usually a significant gap between gaining a surface understanding of language forms (i.e., knowing the answers for a test) and the ability to apply that knowledge in real communication. Some learners may fear making mistakes, and rely too much on attentive processing—consciously constructing sentences piece by piece. Others may get impatient with structure practice and simply want to start using the language—regardless of how inaccurate it may be. There is great variation among learners, which also depends on the linguistic and cultural distance of the linguaculture being learned. An Italian learning French may quickly pass from the more careful practice of i-2 to the more fluency-oriented learning of i-3. An English learner of Russian, on the other hand, may feel lost in a thicket of complex structures, hard-to-pronounce sounds, and hard to internalize letters.

**The i-2 foreign language self** The i-2 level represents something of a turning point. The foreign language is no longer exotic, and learners may start to recognize the enormous effort needed to succeed. They may not, on the other hand, have a sense for how to move forward. At this point, making the connection between linguistic forms and the living use of the language is important. To maintain engagement, learners must feel they are moving in the direction of meaningful communication, interaction, and exploration. Personalizing language practice is important, as is a learning atmosphere which encourages risk taking and self-expression. Going beyond i-2 requires a leap of faith that things will come together in one's mind, and that the journey one is on will be meaningful.

## 13.6 Integrating (i-3)

As learners integrate structured knowledge of the FL, they start to achieve moments in which language use comes together as a functioning whole. It starts to be used intuitively and unconsciously. Learners no longer focus their attention primarily on linguistic structures—instead, they are focused on meaning. They may momentarily forget that they are using a foreign language and lose themselves in communication. i-3 language use is associated with spontaneous fluency, creative use of language, and the kind of automatic processing experienced when absorbed in reading. This increased focus on meaning is a key element of i-3 learning. Language teachers often talk about i-3 processing in terms of fluency or the development of an interlanguage. As teachers know, i-3 processing is not an automatic result of learning lexical

items and syntax. Some learners have extensive vocabulary knowledge, and a good intellectual understanding of language forms, yet still struggle to use language spontaneously. Others may have less extensive linguistic knowledge yet still use language spontaneously.

**The pedagogy of i-3 learning** Helping learners reach i-3 processing is a critical challenge for language teachers. It represents a phase shift—a higher level of cognitive complexity. It doesn't happen all at once of course, and fluency increases over time and depends very much on the task. We may be relatively comfortable and fluent speaking of simple things, yet get stuck and go back to i-2 processing for more difficult topics. Teachers can encourage development by creating activities that provide scaffolding—contextual support in the form of important language, modeling, visual cues—that will reduce cognitive load and allow for i-3 processing. It's difficult to practice both fluency and accuracy at the same time, because i-3 language use is qualitatively different than i-2 language use. Extensive reading, for example, requires i-3 processing while the more focused attention of i-2 learning is engaged with intensive reading. Some teachers seek verbal fluency by telling learners not to worry about mistakes. i-3 language use requires trial and error, and a focus on meaning not form.

**The psychology of i-3 learning** There is a critical shift in how learners experience the target language when they experience it at the i-3 level. Whereas i-2 level processing often requires conscious effort and a focus on language forms, at the i-3 level, learners are more able to lose themselves in communication, and focus on meaning. This is a critical juncture because they begin more frequently to experience the target language as a natural part of the self. That is to say, the language ceases to feel so foreign. The ability to focus on message and self-expression, rather than language itself, can be deeply satisfying—particularly when it allows learners to interact comfortably with target language speakers. This is the point at which speaking a new language starts to feel less like a limitation, and more like a new territory to explore.

Naturally, this shift to a more integrated experience of language doesn't happen all at once. Learners may be comfortable talking only about certain subjects, or in limited contexts. Over time, their range and expressive ability expands. Traditionally, this process is talked about in terms of increased fluency. As learners get language practice, they gain increased fluency, which allows them to perform more communicative functions. From the linguaculture perspective, however, i-3 processing relates not only to what can be accomplished, but also by the learner's ability to use language systematically and creatively. They are not simply parroting memorized phrases, they are actively creating language using their inner linguistic resources. This creative process of-self-expression is a critical component of i-3 processing. It is also what makes this level of learning so exciting.

**The i-3 foreign language self** To shift from i-2 to i-3 use of language requires *tolerance for ambiguity*. At i-2, learners often assume that a foreign language is fully explainable—that any utterance can be understood by relying on explanations from textbooks and teachers. At the i-3 level, the FL is experienced more as part of the self—something to be used in real communication. Learners go beyond seeing

language as information, and focus on using language for different purposes and in different situations. i-3 language learning is messy but it can also be exhilarating. Learners more regularly have feelings of success, and the language (and those who speak it) feel less alien and foreign. The foreign language is no longer seen as primarily an external entity that must be memorized and practiced, but as something that can be used as a medium for expressing one's thoughts, feelings, and self. Despite limitations, learners begin to feel empowered as a language user.

## 13.7 Bridging (i-4)

As learners internalize the foreign language more fully, and become more frequently able to function at the i-3 level of intuitive spontaneity, they come to feel the L2 as a natural part of the self. They start to feel that they are being themselves in a new language. Language use is creative and spontaneous. For many, this level of development is sufficient. There is, however, another level of development beyond fluent use of the FL. The systems-of-systems processing at the i-4 level involves reaching beyond one's personal experience learning a particular domain—in this case, a particular language—and making connections to other domains. The i-4 level is where a language learner starts to think like a teacher, a player starts to think like a coach. Learners see that their experience with the foreign language is simply one case out of many, and realize they need a broader perspective to understand their learning experience more deeply. Learners gain a meta-awareness of their own learning processes, and/or the nature of language, an understanding of the psychology of learning, and so on. Learners see that there are countless domains to explore.

**The pedagogy of i-4 learning** Pedagogy aimed at i-4 learning involves helping learners reflect on learning processes, to help them step out of their immediate experience and gain a more inclusive perspective of language learning in general, and not simply how they themselves learn. Educators who approach pedagogy from the i-3 perspective are likely to use their own experience as the model for their students to imitate—the let-me-show-you-what-works approach. At the i-4 level, however, educators recognize that their own learning experience, while valuable, is limited. There are many factors that affect outcomes, and many domains of knowledge that can contribute to a better understanding of language learning processes. In language classes, reflection activities aimed at this sort of learning awareness can help even lower level learners better understand their own learning process.

**The psychology of i-4 learning** i-4 learning is marked by curiosity, and a desire to go beyond the limits of one's direct experience. Someone with an interest in language learning may, for example, study linguistics in order to better understand language. This builds a bridge between their intuitive understanding of language learning, and the perspective of experts and researchers. This bridging process carries with it both challenges and rewards. It's not always easy to relate one's own experiences to new domains of knowledge—a graduate student may see little relationship between their

own experience learning a foreign language, and the theory they study about in a second language acquisition course. Ideally, however, they will see connections, and each of those domains can inform the other. This is the beginning of a systems-of-systems perspective, in which one domain is experienced in relation to larger wholes. One challenge of i-4 learning is that it can create the impression of uncertainty, since we start to find new answers to questions we already thought we understood. Or, we may expect experts to have ultimate answers to the questions we are asking, only to discover that different specialists have different points of view, and different approaches to the topic give very different perspectives. Learners at the i-4 level start to recognize that language learning is highly complex and that there are always new areas to explore.

**The i-4 foreign language self** At the i-4 level, teachers often lose the need to feel that they are experts, or that they have all the answers to student questions. They see learning more in terms of long-term processes that vary by person and context. They tend to look at learning in terms of growth and development, rather than knowledge and skills. They also start to see that language learning can be approached from any number of directions—in terms of psychology, for example, or brain function, or personal growth. As one's areas of interests and knowledge expand, one's foreign language self is experienced in a more multidimensional way, as part of a larger picture of learning and development. If one's learning progresses to the point of being a teacher or researcher, then one's foreign language self becomes intertwined with these new expanded forms of identity.

## 13.8 Language Learning as a Journey

One way to put the DMLL into practice is by organizing pedagogy using a metaphor of linguaculture learning as a journey. This is a process-oriented approach to pedagogy consistent with backward design, which focuses on defining objectives, and then identifying the evidence that will show progress toward those objectives (Wiggins and McTighe 2005). For learners, this means identifying where they are in their learning, clarifying their learning goals, understanding the steps that can be taken to get there, and participating in a community of other learners on a similar journey. This can be represented as an ongoing process or *reflection*, *vision*, *roadmap,* and *community* (Fig. 13.2).

### *13.8.1 Reflection (Where Am I Now?)*

The first step for pedagogy is to identify where learners are in their journey of learning. While many language courses begin with an explanation of course objectives, some neglect to focus on the inner state of learners. This doesn't refer so much to the level of language ability of the learners, but rather their relationship with the L2—what is

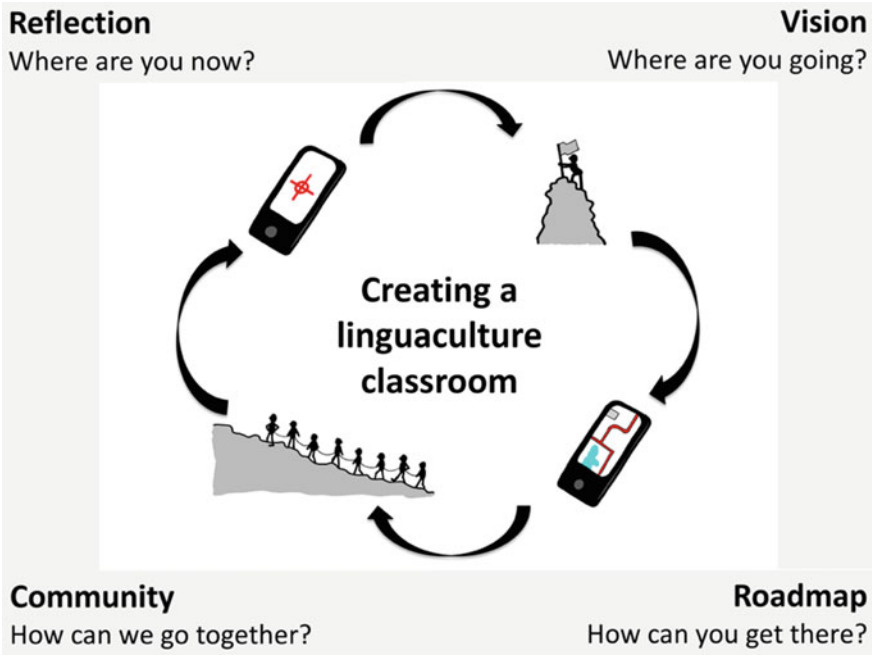



**Fig. 13.2** A pedagogical roadmap

their subjective experience of its foreignness? The purpose is twofold—to help the teacher understand the psychology of learners, but also to help learners begin to reflect on their own states of resistance and engagement. Do they have generally positive or negative feelings about language learning? What is their past history with it? What are their goals and priorities? What are their feelings about the demands and rewards of the course? Do they consider themselves motivated language learners? Why did they take this course? What do they expect to get out of it? How much effort are they willing to make in order to progress? How comfortable are they taking chances and making mistakes? Are their expectations realistic?

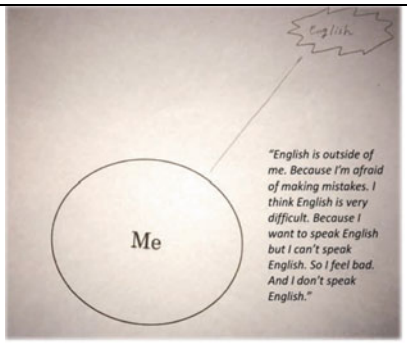
There are many ways to get input like this, including comment sheets, questionnaires, or informal discussion. It's not necessary to spend a lot of time on this, but getting this feedback is important because it provides the teacher with information about students, and because it helps learners see that their personal relationship with the L2 is important. It emphasizes that language learning is a highly psychological undertaking. It also reinforces the idea that learners have agency—they can choose to engage or not; they can communicate their concerns to the teacher; they have a choice to make about how to approach learning. Naturally, the sort of reflection and feedback that is appropriate will depend on the educational context. Figure 13.3 has an example of a reflection activity used in a Japanese university required English course.

**Sample activity – English and me**

**Goal**: Learner reflection on their relationship with the L2. Help learners recognize psychological resistance. Create learner goals related to their experience of learning.

**Procedure**: Students are given a blank sheet of paper with a circle drawn in the middle. In the circle is written "Me". Students are asked to show visually how they experience English in relation to themselves. They are free to illustrate with words, diagrams, drawings, etc. Students share their drawing with other learners and compare their language learning experiences. This can be used to help learners create learning goals for the course/semester—how they can develop positive relationship with L2.

**Student samples**



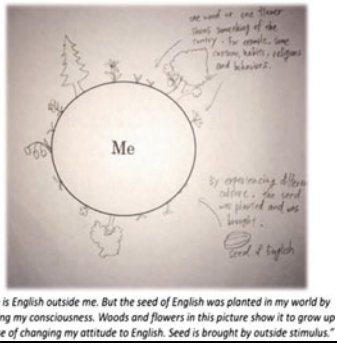




**Fig. 13.3** Sample activity—English and me

### *13.8.2 Vision (Where Am I Going?)*

The second step toward deep learning is to help learners develop a vision for what they hope to get from the language learning process. Some language teachers take for granted that learners understand the purpose of learning a foreign language, or that they will naturally see it as a valuable thing. The deep learning approach reminds us, however, that learners may have only the vaguest notion of what it feels like to succeed with a foreign language, and how deeply meaningful that experience can be. They may look at language learning in practical terms—as a way to get a job or order food when on vacation—without understanding that inner change and growth is also possible too. To go beyond this, educators can help them see language learning as preparation for new experiences with the larger world. Ideally, learners should also reflect on the inner qualities they would like to develop as part of the linguaculture learning process.

There are many things educators can do to help learners create a vision for learning. The most typical is to pay special attention to course objectives—let learners know what they can hope to get out of their learning experience. That should include not only externally measured outcomes such as grammatical structures or communicative functions, but also internal measures, such as keeping motivation, or not fearing making mistakes. Teachers can contribute to this process by sharing the challenges

and rewards that they have experienced in language learning—by acting as learning role models.

### *13.8.3 Roadmap (How Do I Get There?)*

The third step toward deep learning is to shed light on the developmental road that awaits. Unless they have previous experience learning a language, learners will likely have trouble seeing how the small steps they are taking today can lead to a changed experience of the target language. A mental roadmap has two sorts of signposts—external and internal. The external markers are those that provide a sense of progress relative to class material and external evaluation. But they also need a set of internal markers—signs that tell them they are making progress in terms of their experience of the foreign language. Without a mental roadmap in mind, they will have more trouble planning their own learning and noticing their successes. Most fundamentally, if learners can monitor their own state of learning, they can try to reproduce the experience of higher levels of learning.

Many language classes focus almost exclusively on objective mastery of course material. The deep learning approach adds inner, more experiential measures of learner success. This inner roadmap to learning can be encouraged by helping learners understand the four levels of linguaculture learning, giving them the opportunity to monitor their own learning, and by describing assignments and tasks in terms of the kind of learning it is focused on. To provide examples of this approach, Fig. 13.4 shows an activity used in a Japanese university required English course to teach students about the four levels of linguaculture learning.

Figure 13.5 shows an example of how homework assignments can be categorized by the learning focus. This can help learners see that going over material once is not enough for deeper learning. When working with a reading passage, for instance, simply understanding the basic meaning of the passage (i-1) is not enough for higher levels of learning—they need to be able to adapt the material in new ways (i-3) or analyze the content (i-4).

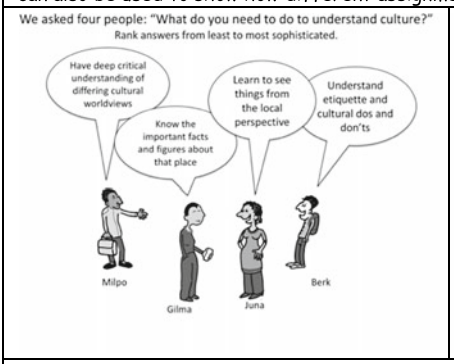
### *13.8.4 Community (How Can We Go Together?)*

When students walk into their classroom, they are participating in a community with a shared purpose. The teacher has an important role in shaping expectations and classroom culture. A deep learning approach encourages educators to make explicit the values the learning community shares. Ideally, it should be clear to learners how these values are built into the structure of the course, and how they relate to learning goals. The way this is done will depend largely on the educational context, and has been explored in terms of motivational group dynamics (Fukuda et al., in press). Figure 13.6 is an illustration taken from the course description of a required English

**Sample activity and materials – Levels of linguaculture learning**

**Goal**: Help learners understand different levels of linguaculture learning, so they can see that different activities focus on different levels of learning. Help learners become aware of their own level of learning.

**Activity Procedure**: To introduce the four levels of linguaculture learning, students are first shown a drawing that illustrates four learners, each with different ideas about how best to learn a language. Each person represents a different level of linguaculture learning. Learners are asked to guess which learners are beginners and which more advanced—ranking them from 1 to 4. The teacher may want learners to discuss the reasons for their choices. After this, the teacher shows how these four learners correspond to levels of language learning. They can also be used to show how different assignments or activities relate to these four levels.



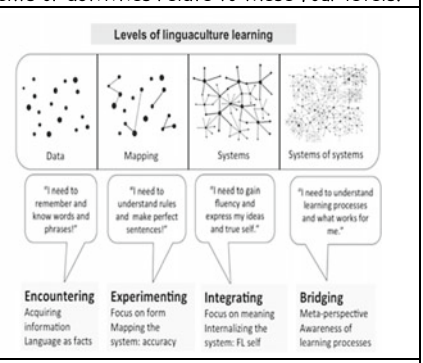




**Fig. 13.4** Levels of learning sample activity

program at a private university in Japan. The program goals were to develop the communicative ability and cultural awareness of global citizens. With that in mind, the values promoted throughout the program were: (1) language ownership—the commitment to develop one's foreign language self through autonomy, engagement, and awareness; (2) collaborative learning—a commitment to supporting the learning of others, and expanding one's vision beyond the self; and 3) global citizenship—the commitment to become a cultural bridge who contributes to society and global community. Teachers in this program learned about the linguaculture approach, and were encouraged to conceive of the classroom as a zone in which to experiment with foreign linguaculture patterns, an expanded foreign language self, and the development of a more intercultural self—one that can act as a linguistic and cultural bridge person in intercultural contexts.

**Toward a linguaculture learning classroom** This chapter has introduced only a few ideas about how to organize pedagogy around the DMLL. The DMLL was designed both for educators and students. Educators can use it as an overall framework for planning activities and syllabi. An understanding of different levels of learning can also empower students and encourage autonomy. Many learners may feel stuck in their journey of learning—trudging along, lesson after lesson, with no sense of where

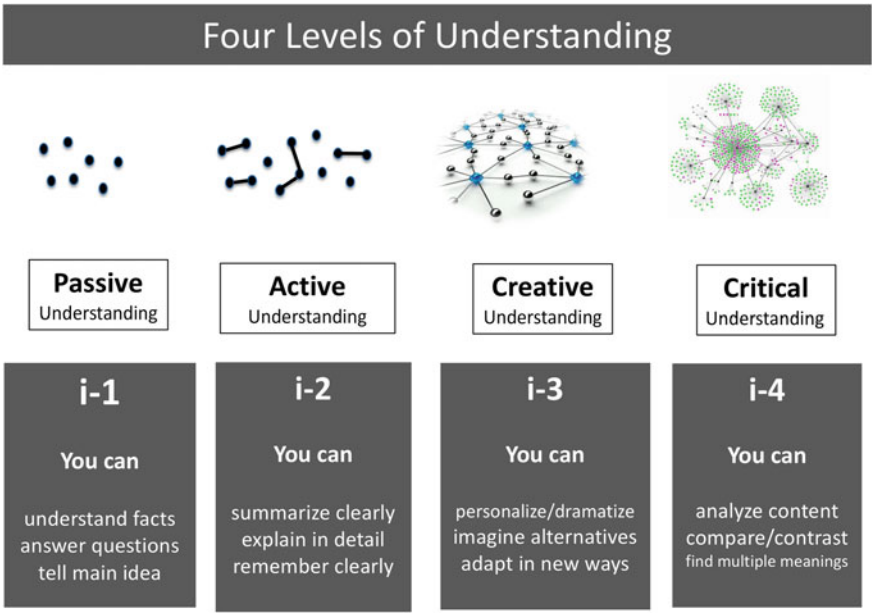



**Fig. 13.5** Using the DMLL to describe learning focus of assignments

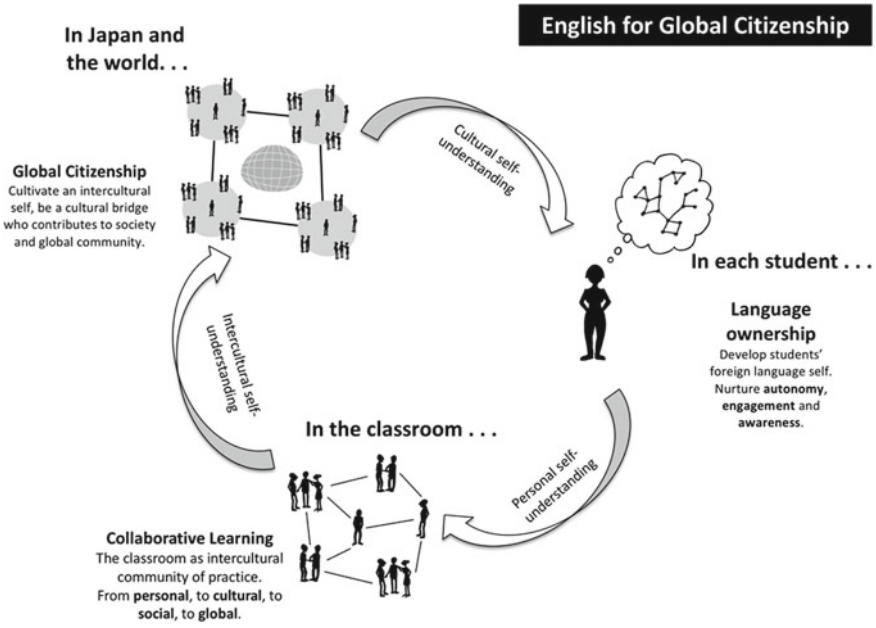



**Fig. 13.6** Sample from English language program in a Japanese University

they are going or why they should spend so much effort. As they learn to engage with linguaculture learning at higher levels, they will see that language and culture learning are much more than a set of skills, or a way to get a job. Linguaculture learning can lead to a transformative experience and an expansion of the self. In that sense, this model is designed for anyone who sees language and culture learning as a form of cultural exploration and personal growth.

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# Chapter 14
# Deep Culture Learning


**Abstract** This chapter discusses how the Developmental Model of Linguaculture Learning can serve as a framework for pedagogy oriented toward cultural learning, as when preparing learners to study abroad, or as a content course focused on intercultural communication and awareness. It discusses cultural learning objectives in terms of knowledge, skills, and awareness. It argues for the importance of distinguishing between surface and deep forms of cultural learning, and argues that knowledge, skills, and awareness can be understood as part of a spectrum from surface to deep. It describes the four levels of cultural understanding as conceptualized by the DMLL. It does so in terms of how learners makes sense of culture and culture difference. Intuitive understanding is seen as an important goal of cultural learning pedagogy. Sample materials are introduced that were developed using the deep learning approach.

## 14.1 Culture Learning Pedagogy

This book has been written largely with the needs of language teachers in mind. The DMLL is not, however, just an approach to language teaching. It can also be used to plan cultural learning pedagogy. It may be useful, for example, to educators and trainers who are preparing sojourners to go abroad, providing intercultural training for expatriates, or teaching a course in intercultural communication.

There is an obvious caveat. Cultural learning contexts vary widely, and no single approach or model will fit every circumstance. The DMLL can offer, however, a cogent approach to thinking about (1) the goals of cultural learning, as well as (2) the developmental processes that help us reach those goals. Cultural learning goals are more difficult to define than language learning goals, because intercultural ability is more subjective than linguistic ability. As we have seen, many conceptualizations are either abstract idealizations (e.g., intercultural awareness), multidimensional constructs (e.g., intercultural competence), or broadly defined traits (openness). We need clear goals, however, in order to focus pedagogy and provide learners with a sense of what they should be learning. Once those goals are defined, however, we still need to understand how to reach them—a set of benchmarks or signposts which help us



J. Shaules, *Language, Culture, and the Embodied Mind*,
https://doi.org/10.1007/978-981-15-0587-4_14

judge progress. We need to understand the state of learner development and plan pedagogy appropriately.

With this in mind, this chapter will explore how the DMLL can be used to plan culture learning pedagogy. It will progress from the general to the specific, first laying out some foundational assumptions of a deep learning approach to cultural learning pedagogy. It will discuss the four levels of cultural learning described by the DMLL, and give examples of activities and materials grounded in this approach.

**Culture general—culture specific** Cultural learning pedagogy is often divided into either *culture specific*, or *culture general* approaches. The former refers to learning about a specific cultural community, as when study abroad students heading to China learn about Chinese society or customs. A culture general approach, on the other hand, focuses on learning that will be useful regardless of the particular intercultural context. Helping study abroad students learn about *culture shock*, for example, is an example of a culture general approach. In practice, intercultural pedagogy often includes some range of specific to general. The DMLL represents a culture general approach, and is focused most specifically on learners who will be dealing with cultural difference in foreign settings. Because it focuses on the experience of cultural difference, as opposed to seeking cultural commonality, it may be less useful for education focused on ethnic or racial diversity within a country, or social and political issues related to multicultural societies.

## 14.2 Starting Assumptions

A deep culture approach to intercultural education seeks *to help learners gain insight into their intercultural experiences* through a better understanding of mind—how our mental habits and perceptions are shaped by culture; how our mind reacts when confronted with cultural difference; how we can learn to adjust our mental autopilot—to make sense of foreign cultural patterns, look at things from new cultural perspectives, and adjust accordingly. Cultural learning is seen as a trial-and-error process that takes places largely at the level of unconscious awareness. This process is largely intuitive—it results in flashes of insight and the gradual ability to make sense of things in a new way—but it is not mysterious. It has a predictable learning progression that anyone can relate to.

A deep culture approach emphasizes an understanding of the intuitive mind. Such an approach need not be overly technical. The intuitive mind can be conceived of as our autopilot of everyday life. It helps us navigate predictable environments and provides us our sense of what's normal and expected in a given situation. It makes common-sense interpretations of the world, picks up on social cues and reads social expectations, as well as intuiting the intentions of others. It learns habits that allow us to carry out quite complex tasks—driving, cooking, shopping, and interacting—with little conscious effort. These habits of body and mind free up the problem-solving

and reflective processes of the attentive mind—our more active and conscious ability to think things through and make mental plans.

This approach seeks to be fact based—describing what is, as opposed to what should be. A deep culture approach minimizes the use of abstract idealizations—e.g., intercultural awareness or intercultural competence—as primary learning goals. Such qualities are easy to agree on in principle, but risk preaching to the choir—those who value these qualities tend to already have them. Instead, the DMLL focuses on understanding the cultural underpinnings of our own mental habits, and the ongoing process of intercultural discovery and insight. The DMLL assumes that ethnocentrism, bias, misunderstanding, stress, and psychological resistance are all normal parts of the intercultural experience.

This neutral stance may feel insufficient for educators whose work focuses on issues of social diversity, racism, intolerance, and political oppression. The DMLL is not intended, however, to excuse or justify discrimination or prejudice. Rather, the DMLL tries to shed light on the inner developmental process that leads to intercultural understanding. It assumes that intercultural understanding is facilitated by an acceptance of one's own perceptual limitations, including an acceptance of the validity of other worldviews. The DMLL emphasizes the psychologically challenging nature of intercultural understanding, and helps us understand why bias and discrimination can be so hard to overcome. Deeper forms of intercultural understanding are hard work.

## 14.3 Culture Learning Objectives

Defining cultural learning goals and measuring learning outcomes is a central challenge for intercultural learning pedagogy. Learning objectives are sometimes described in broad terms, such as *Help learners develop a more global mindset*, or *Increase students' awareness of cultural difference*, or *Help learners prepare for the challenges of spending time abroad*. It can be hard to translate such general goals into learning activities. Even something which sounds relatively straightforward, such as talking about cultural difference, can be a challenge, as it may slip into stereotyping. And the challenges of spending time in foreign places—such as culture shock—depend very much on the person and context. It's hard to generalize. All of this can make it hard to decide just what learners are supposed to accomplish. Simply providing cultural information can seem shallow, but focusing on more abstract goals such as awareness can seem vague and detached from real life.

## 14.4 Knowledge, Skills, and Awareness

One common approach to pedagogy is to describe learning goals in terms of *knowledge*, *skills,* and *awareness*. In a more traditional conceptualization, as visualized in Fig. 14.1, cultural knowledge is seen as the facts of a target culture or society.

This may mean students must study the history or geography of a region or country, traditional customs, and important facts about living there. The limitation of such knowledge is that it can seem dry and academic—not closely connected to the excitement and adventure of foreign experiences. Also, turning culture into a set of facts risks overgeneralization and stereotyping. Culture is complex, and providing information is simply not enough for deeper understanding.

Cultural skills are another mainstay of more traditional forms of pedagogy, most typically talked about in terms of customs, etiquette, or the dos and don'ts of getting along in a particular place. But this approach is limited by the fact that culture cannot be reduced to a set of rules. Knowing how to exchange business cards, for example, or which fork to use for salad, can provide important guidance in certain situations. But such norms cover only the slightest number of interactions. Most of the time, simple behavioral rules are not enough. Each individual is unique, and their behavior cannot be predicted in such a simple way.

In addition to knowledge and skills, cultural pedagogy often focuses on more abstract qualities such as intercultural awareness. But it can be hard to know how to develop this in practice. Some intercultural pedagogy combines experiential activities, such as simulation games, with reflection and debriefing. This is intended to raise learner awareness of key intercultural issues. Other approaches are more focused on critical thinking about culture. Learners may be asked, for example, to evaluate a photo of an unfamiliar cultural scene, and become aware of the natural tendency to not only *describe* a scene, but also to *interpret* what's happening, and make *judgments* about it. Such activities are intended to raise awareness and encourage meta-level thinking about our own perceptions.

Each of these learning goals—*knowledge*, *skills,* and *awareness*—presents challenges for intercultural educators. What sort of knowledge should be taught? Unlike subjects like math and science, cultural learning content often cannot be easily represented conceptually. How useful is it to learn cultural facts and figures? How can we talk about culture yet avoid stereotypes or overgeneralizations? The idea of skills

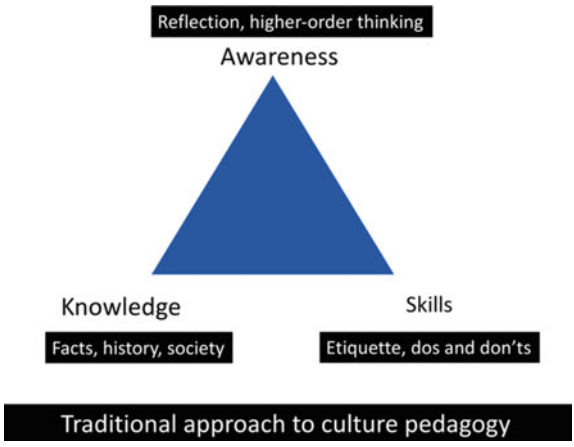



**Fig. 14.1** Traditional approach to culture pedagogy

training can also be problematic—just what sort of skills are necessary? Learners may hope, for example, for practical advice about how to behave in a foreign country. Yet teaching cultural etiquette and behavioral dos and don'ts can be shallow and stereotypical. There's so much situational and personal variation that it's hard to define or describe what is "typical" in a given cultural context. Beyond this, culture is more than a set of behaviors—how people act is a reflection of how they make sense of a given situation and how they see the world more generally. As for more abstract goals such as intercultural awareness, they are easy to agree on in principle but hard to define clearly or quantify. How can educational activities develop such qualities? How can learner progress be evaluated?

## 14.5 Surface and Deep Cultural Learning

This work argues that a deep culture learning perspective that can provide a new dimension to traditional approaches. The core insight of this perspective is that knowledge, skills, and awareness all exist on a continuum of surface to deep. Surface elements pertain to more conscious, conceptual, and analytic processes of mind, while deep elements relate to more intuitive, complex, and embodied elements of mind and self. Figure 14.2 illustrates this distinction. Whereas, surface learning leads to an understanding of facts, ideas, and concepts, deeper learning leads to intuitive understanding—a feeling for what things mean, or how things work. With enough

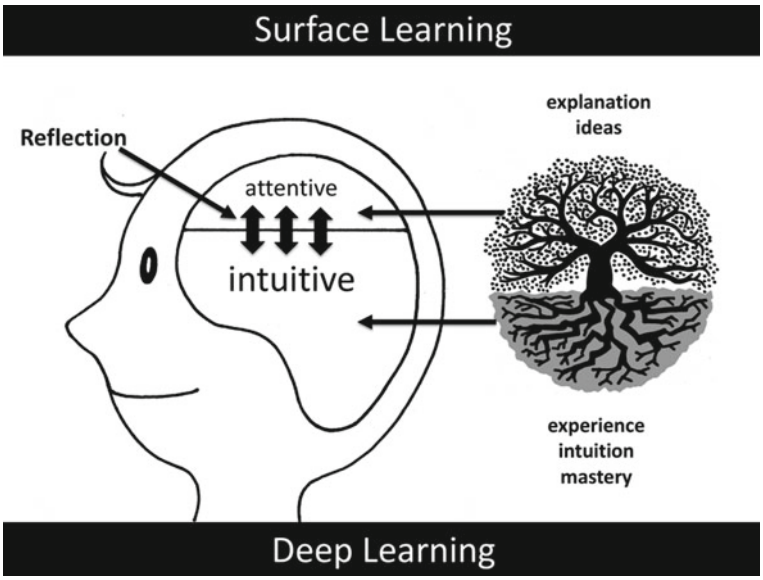



**Fig. 14.2** Reflection and deep learning

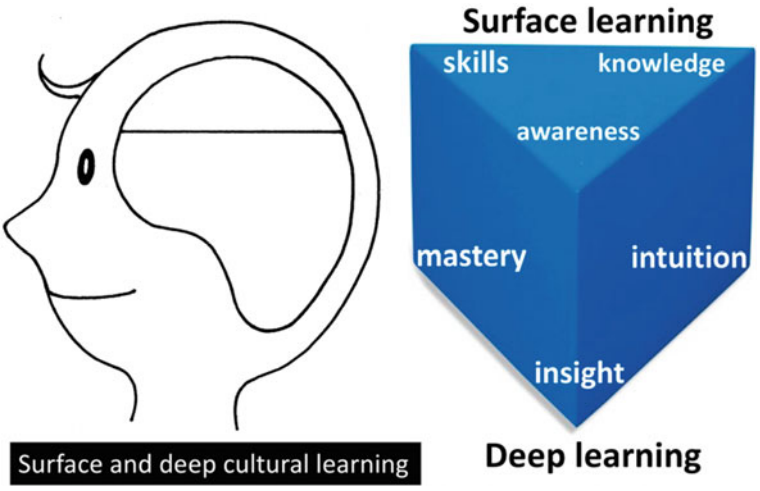



**Fig. 14.3** Surface and deep learning

practice, learners may gain a sense of mastering new ways of thinking, acting, or being.

This core organizing principle gives us a new way to look at the knowledge, skills, and awareness dichotomy—each of which can be seen as relatively more surface, or deep. While Fig. 14.1 represents a traditional cultural learning dichotomy of knowledge, skills, and awareness, Fig. 14.3 adds the dimension of depth—rendering the conceptualization three-dimensional.

This allows us to make the distinction between more surface and deeper forms of knowledge. Surface knowledge is intellectual and conceptual, whereas deeper forms of knowledge are intuitive, holistic, and more fully embodied. Intuitive knowledge provides a feeling for what things mean, and thus help us better interpret behavior. As discussed in Chaps. 7 and 8, intuitive understanding (as opposed to conceptual knowledge) is a key objective of a deep learning approach. Pedagogy that focuses on intuitive knowledge can do so by emphasizing experiential, holistic, problem-solving activities that provide the intuitive mind the opportunity to develop a richer, more complex, and more dynamic level of understanding. The DMLL describes that process of gaining intuitive understanding.

A deep learning approach also allows us to distinguish between skills that are more surface—they are relatively simple and easier to demonstrate explicitly. Etiquette rules provide one, while deep skills are more complex, intuitive, dynamic, and creative. Complex skills provide a sense of creative mastery—and this, importantly includes language skills. When language learning focuses on intuitive understanding and experiential learning, it leads to a deeper form of understanding and mastery—one that is closely related to cultural understanding.

This three-dimensional view also allows us to distinguish between different forms of awareness. As discussed in Chap. 3, intercultural awareness is often described as

an advanced form of perceiving, one that centers on abstract notions of perception and critical understanding and meta-cognitive abilities. A deep learning approach reminds us, however, that cultural learning is largely experiential, and doesn't depend on such abstract, analytic forms of cognition. Someone with few intercultural experiences may reflect on culture, but still have only shallow insights. Someone else may, on the other hand, have deep intercultural experiences, and thus be very insightful about intercultural issues, all without ever having formalized that understanding using concepts. The deep learning approach proposes that the depth of one's cultural insights is more important than the sophistication of one's conceptualization of those insights.

A deep learning approach provides a new way to conceive of intercultural awareness as it relates to the sorts of reflection activities commonly found in intercultural education. In Fig. 14.2, *reflection* is represented by arrows that link the attentive and intuitive mind. This represents the idea that reflection is grounded in our experience up to that point. Put simply, those who have already had extensive intercultural experiences have more to reflect on—their reflection can lead to deeper forms of insight. More naïve learners, on the other hand, will have more trouble coming to deep intercultural insights. This provides an important guiding principle for intercultural pedagogy—*learners with less intercultural experience require more experiential, trial-and-error, holistic, pattern-rich forms of education and training. Those with more intercultural experience, on the other hand, can gain insight through a reexamination or exploration of their experiences*. For more experienced interculturalists, intercultural education involves providing ways to talk about and reflect on their experiences, whereas less experienced learners need to enrich their experiences to drive deeper learning.

## 14.6 Levels of Cultural Understanding

The DMLL provides a description of four developmental levels of learning. Figure 14.4 provides a visualization of the DMLL as it relates to cultural learning. These levels were discussed in Chaps. 10 and 11. Each level represents a different way to experience cultural difference and cultural learning. At the i-1 level, cultural difference is perceived in terms of *facts*—culture is seen in absolute terms and knowledge that can be acquired. At the i-2 level, cultural understanding becomes more contextualized, and is seen more as a set of rules to follow, based on a cause–effect sort of thinking. This is often talked about in terms of etiquette and dos and don'ts. At the i-3 level, learners are starting to see cultural difference in more relativistic terms—they see cultural learning in terms of gaining a new perspective. This represents a major shift away from an ethnocentric way of looking at the world, to a more ethnorelative one. This shift has been described by Bennett (1986b) as going from a state of *minimization* (recognizing cultural difference, but still judging it) to *acceptance* (an understanding that cultural difference represents valid but different ways to view a situation). At the i-4 level, cultural difference goes beyond a simple

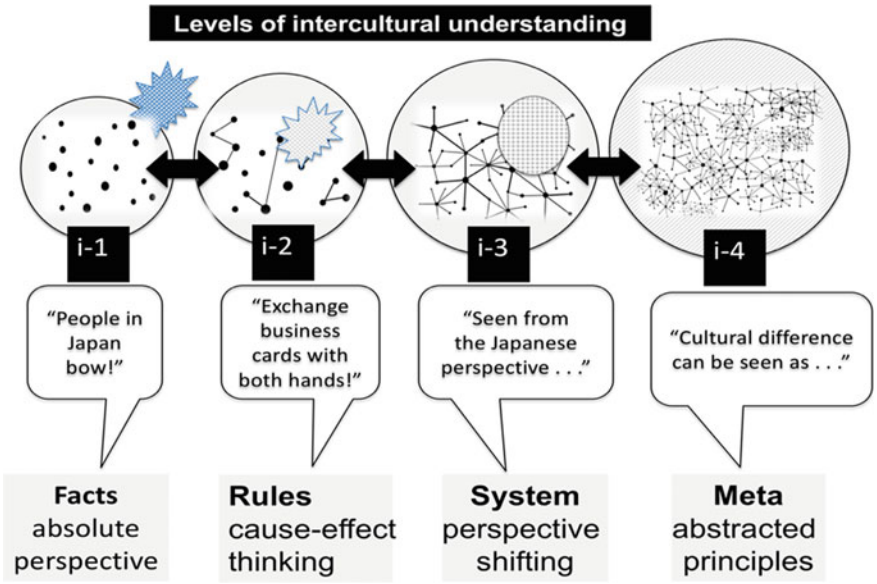



**Fig. 14.4** Levels of intercultural understanding

comparison of two cultural points of view, and expands to include a multiplicity of viewpoints, and the ability to experience cultural difference at a more abstracted, meta level.

While these levels are developmental—they represent increasing levels of cognitive complexity—they are not stages of learning. That is to say, they are not intended as a scorecard or scale to measure someone's overall level of intercultural awareness. Rather, they reflect the level of perceptual sophistication in a given moment. People regularly shift between different levels depending on the context. For example, even the most experienced interculturalist—someone with the sophisticated cultural intuitions and awareness of i-4, will also sometimes seek out individual cultural facts; something that is associated with i-1 processing. Naturally, as learners develop, they will spend more time processing their experiences at higher levels of sophistication, whereas more naïve learners may be largely limited to i-1 or i-2 experiences of foreign cultures.

By joining the four levels of cultural learning with the idea of deep learning, we are able to see the developmental progression of cultural learning as taking place at different depths. This is represented in Fig. 14.5. More surface forms of cultural knowledge are represented by i-1 facts; 1–2 rules; 1–3 explanations; 1–4 abstractions. Each represents a richer conceptual understanding of culture. At the deeper level of the intuitive mind, however, these four levels can be understood as i-1 experiences; i-2 expectations; i-3 insider perspective; i-4 multiple perspectives. As seen at the bottom of the figure this is encapsulated in four statements that reflect that state of mine: i-1 *Been there, done that*; i-2 *I know how things work*; i-3 *I understand*

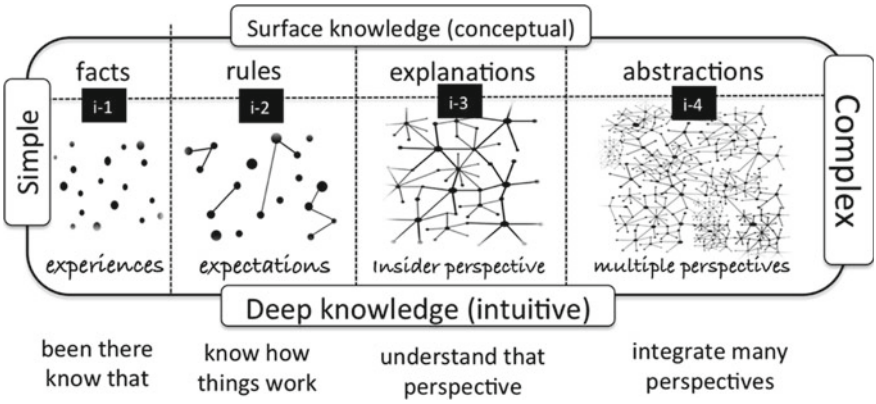



**Fig. 14.5** Surface and deep knowledge

*that perspective*; i-4 *I've integrated multiple perspectives.* Overall, this progression represents development from simpler forms of understanding, to more complex.

## 14.7 The Phenomenology of Cultural Understanding

An important goal of the DMLL is to help shed light on how cultural difference is experienced at different levels of learning. In this view, the way we think about cultural difference is reflected in how we talk about it. Thus, by listening closely to how learners talk about culture and cultural difference, we can gain a sense for the level and depth of their cultural understanding. With that in mind, we'll look at each level of the DMLL in turn.

### *14.7.1 Encountering (i-1)*

Those with limited cultural learning experience often have naïve or simplistic understandings of culture and culture difference. This is primarily a form of ignorance and a lack of more complex perceptual categories, although it may include prejudice and negative stereotypes that have been learned. Learning at the i-1 level can be seen as an encounter with cultural otherness. Foreign people or customs may be seen as alien, exotic or strange, and may be seen in simplistic or stereotypical terms. Cultural learning is seen primarily as information and facts to be memorized and studied, and there is a tendency to see things in terms of "right answers" and knowing. Cultural information sometimes relates to objective facts, such as "Big Ben is a famous clock in London" and learners feel that cultural competence revolves around being informed about a cultural topic. If asked to talk about their own cultural background, they may

focus on factual or symbolic things, such as food, traditional arts, and ceremonies. Learners often experience cultural difference in terms of simplified images such as *Indians eat curry* or *South Americans are romantic*. These are often seen as factual statements. People from foreign places may not be thought of as individuals with distinct personalities, but rather as simply representing an archetype.

### *14.7.2 Experimenting (i-2)*

When experiencing the world at i-1, learners perceive culture as a series of facts to know or memorize. At i-2, learners move beyond simple images of foreign people and places simply being alien, and start to understand that things are done differently in foreign cultural communities. At i-2, learners may show interest in cultural taboos, etiquette rules and stories of unusual or foreign behavior. Conversely, they may resist what they see as exotic or unreasonable behavior. They often see cultural learning in terms of rules about right and wrong behavior. Learners at the i-2 level often see foreigners and foreign cultural communities in monolithic terms. They may not perceive that within any cultural community an individual may be relatively typical or atypical.

i-2 processing often involves simple cause-and-effect conclusions about people based on where they are from, such as "Oh, you are from France. So you like wine, right?" The experience of culture as a set of rules involves a kind of Newtonian logic that attempts to find absolute explanations. People from community X do this because of Y. They may be surprised to meet a British person that doesn't like tea, or an American that's never been to Disneyland. i-2 learning is less simplistic than i-1 because it sees cultural diversity as representing systematic differences, but the understanding of those systems is highly simplified.

### *14.7.3 Integrating (i-3)*

As we've seen, i-2 cultural learning involves seeing culture in broad cause-and-effect terms. As learners gain intercultural experience, however, they realize that cultural labels are poor predictors of individual behavior. Not all French people eat baguettes and not all Californians hang out at the beach. They start to see that culture cannot be reduced to a series of predictable rules or absolute truths. This brings learners to an important shift in the perception and experience of culture—they see that individual cultural differences represent one pattern that is part of a larger dynamic system. This represents a more ethnorelative experience of cultural difference—a recognition that understanding a foreign cultural community requires suspending one's normal way of perceiving the world, and attempting to step into a different cultural worldview. There is an intuitive recognition that what is normal for one cultural community, may seem strange or unreasonable to another. This doesn't mean that one will always agree

with the cultural norms and values of foreign cultural communities. It does mean, however, that one recognizes that there are competing systems of behavior, thought and meaning at play.

Perceiving cultural difference as a competing view of the world, and not simply as a different set of behavioral rules, doesn't happen all at once. Rather, as we get used to foreign patterns, and we start to see how they make sense within the context of a particular cultural community, we start to gain an intuitive sense of how things work, what is expected, what is valued, and so on. This intuitive sense for a new cultural world can be disconcerting, as we recognize that our own values and habits of mind may be less universal than we had realized. This intuitive shift involves a de-centering process in which we are able to shift back and forth between competing views of a situation. At the integration stage, one may say *It depends on whether we look at this from the Turkish perspective, or the German perspective.* Those with multicultural backgrounds may talk about being a chameleon, and the ability to shift between different cultural worlds, value systems, and ways of communicating.

As with language learning, integration typically requires a long process of experimentation, and trial and error in a wide range of situations. Yet while becoming culturally fluent in a new cultural community may take years, integration is marked by a crucial insight that can happen in a sort of *A ha!* moment. There seems to be a certain threshold that some people cross easily, with others never fully reaching it. Arriving in a foreign country for the first time, a sojourner may intuitively understand that this foreign place is a different world, and that only by attempting to see the world from the local perspective can it be fully understood. Surface behaviors are understood to be part of very fundamental differences in cultural values and assumptions. This fundamental recognition is represented within the i-3 circle by a network which has formed into a cohesive whole, unlike the piecemeal connections and structures within the i-2 circle.

While integration represents a greatly enriched experience of cultural difference, it can be challenging as well. If foreign behavior, norms, and values are interpreted as a different but equally valid way of seeing the world and ordering human behavior, one can feel torn between competing worldviews. One loses the secure standpoint of ethnocentrism, and must now navigate multiple perceptual realities. Learners may question the cultural values that they were raised with. They may struggle to find their place in different cultural communities. Because they recognize the difference between the perspective of a cultural insider and a cultural outsider, they may feel they lack firm ground to stand on, or feel unsure of where they belong, or what their values should be.

### *14.7.4 Bridging (i-4)*

For most people, the intuitive insights of integration are enough to navigate different cultural worlds. The very act of shifting between different modes of perceiving, however, opens one up to the possibility of an even more complex level of intercultural

understanding. Whereas, i-3 processing (integration) entails shifting between cultural worlds, this is largely experienced in binary terms, as a form of comparison and contrast. Attention is often focused on understanding the ins and outs of a new cultural community, and then noticing how it differs from what is more familiar. This sort of either/or thinking is not sufficient when trying to understand multiple cultural communities, or when trying to understand cultural difference at a more meta-level of analysis or experience. By way of example, a Chinese sojourner may equate individualism with English values, due to experience in the United Kingdom, as contrasted with more collectivist Chinese values. Additional experience in the Netherlands, however, may help her realize that the notion of individualism is more varied, abstract and complex than they had realized. Individualism in the Netherlands may be quite different from that in the UK. Whereas, i-3 thinking seeks mastery and understanding of a particular cultural domain, i-4 thinking builds bridges to new domains, seeking a more meta-level understanding of cultural phenomena.

The i-4 (systems of systems) level of experience seeks to integrate multiple domains into a more macro system level of understanding. i-4 thinking is characterized by meta-level understanding—the ability to abstract general principles from particular cases. For cultural learners, this may start with the recognition that it is impossible to have deep insider knowledge of more than a few cultural communities around the world, since gaining deep understanding of any given cultural community can take years of lived experience. This is analogous to the impossibility of learning more than a few languages in a lifetime. In addition, there is a great variety in terms of cultural distance. Just as German speakers will find Dutch easier to learn than Arabic, it will normally be easier for someone raised in Italy to adapt to life in Spain, than to rural Yemen. A fundamental recognition of cultural variety and depth forces cultural learners to come to larger, more abstract, meta-level conclusions about the nature of culture and the human experience. A systems of systems understanding of culture can only emerge as multiple cultural domains, and a variety of approaches to understanding them, have been able to be integrated into higher level principles.

Among intercultural professionals, i-4 understanding is most typically discussed in terms of meta-level organizing principles that help identify patterns found in all cultural groups. Edward Hall, for example, described how cultural communities vary in terms of high versus low context communication (Hall 1976; Hall and Hall 1987). In Japan, leaving things unspoken and the ability to read between the lines (high context communication) is valued, whereas in countries such as Germany, saying precisely what one intends without ambiguity is particularly valued. Such meta-concepts involve recognizing patterns that extend beyond any particular cultural community, and act as superordinate categories of understanding. Approaches to cross-cultural comparison are often grounded in such meta-level thinking, including Kluckhohn and Strodbeck's (1961) idea that cultural communities vary in how they deal with universal problems related to time, nature and each other, or Hofstede's use of constructs from social psychology—such as power distance, or uncertainty avoidance—to describe cultural value orientations (Hofstede 1983). More recently, cultural psychologists have been describing these meta-level patterns in terms of

cognition and identity. Examples include Markus and Kitayama's (1991) conceptualization of independent versus interdependent construal of self, and research work contrasting East Asian and Western patterns of cognition and perception (Han and Northoff 2008).

Experiencing culture in such complex ways can lead to new forms of identity that go beyond membership in individual cultural communities or being a bridge between different worlds, or having contrasting cultural viewpoints. Bennett (1993) describes someone who is "struggling with total integration of cultural relativism" in terms of an experience of marginality in which "there are no unquestioned assumptions, no intrinsically right behaviors, nor any necessary reference group" (p. 43). Such an individual must construct a sense of self and make sense of the world in a way that goes beyond any single cultural frame. Integrating a multiplicity of viewpoints, a wide range of experiences, and a complex understanding of cultural difference and shared humanity requires time and experience. For educators, some degree of meta-understanding is needed in order to guide pedagogy. Education and training that stops at the i-3 level will tend toward explanations about how things work in a particular cultural community, but may have trouble going beyond that to broader principles of cultural learning.

## 14.8 The Importance of Intuitive Understanding

Some individuals have a sophisticated intellectual understanding of intercultural concepts, but lack basic intercultural insight. They may have extensive knowledge of culture or cultural concepts, without noticing their own ethnocentrism. They may understand intercultural theory, without demonstrating cultural sensitivity in practice. As is true in many domains, intellectual or conceptual understanding is not the same thing as the deeper insight and mastery that is earned through lived experience.

For intercultural educators, the distinction between surface (intellectual) and deep (intuitive) forms of cultural knowledge is important. Deep (intuitive) cultural understanding is grounded in experience, *A ha!* moments of insight, the ability to enter into multiple cultural perspectives, and an increasing comfort with the intercultural complexity of everyday life. And while experiential learning and insight has long been important in intercultural education and training, it has most frequently been discussed in terms of intellectual awareness and intelligence, with little attention paid to the intuitive forms of cognition that guide us in our everyday lives. At its worst, this can lead to a shallow, overly intellectualized, ideological and naïve form of intellectual understanding.

Shallow intercultural understanding is a result of sophisticated conceptual knowledge that is grounded in simplistic or undeveloped intuitive knowledge. The author has spoken with study abroad students, for example, who learned about the concept of culture shock before going abroad. They understood the idea without any problem, and believed it wouldn't happen to them. Such individuals may then go on to suffer from culture shock without recognizing what's happening to them—they don't make

the connection between their intellectual understanding of culture shock and their lived experience of the same phenomenon. In contrast, some individuals experience culture shock without ever learning the term. Later, when they learn the concept of culture shock, they immediately have an intuitive understanding of it.

## 14.9 The Pedagogy of Intercultural Insight

A deep learning approach emphasizes insight over conceptual understanding. It seeks to ground conceptual understanding in lived experience. The term *insight* itself reflects the importance of intuitive knowledge—it involves a sensation of inner recognition, of making mental connections, intuitively grasping higher principles, or experiencing mastery through subtle understanding. Insight is experienced at different levels of complexity. A single experience—landing in a foreign country for the first time—may provide deep insight into the singular fact of cultural difference—that foreign places represent different worlds of experience where everything is different from back home. Stated as a fact—foreign countries are very different from back home—this insight may sound banal. When grounded in experience, however, such an insight can be life changing. More complex forms of insight may provide a feel for how people act in a given situation (i-2) or a sense for how to view things from an alternative cultural perspective (i-3) or more meta-level insights about culture (i-4).

Focusing on insight reminds educators of the need to keep a balance between experiential learning and conceptual input. Some intercultural learning activities are highly experiential. One example is the role-playing game BaFa' BaFa', which sets up two cultural groups (Alpha and Beta), and which has participants experience the disorientation and discomfort of attempting to interact with a group that is behaving in an unfamiliar way. Debriefing is critical for such activities, because participants need to come to a conceptual or intellectual understanding of their experience. Failure to do so sufficiently, or to show how these insights can be helpful in real-world situations, can lead to the feeling of "it was fun, but I didn't learn that much". At the opposite extreme, simply studying terminology or theory related to culture, without connecting this intellectual knowledge to learner experiences, can seem abstract and impractical. One student of the author, who enjoyed learning about how culture shapes cognition, said "Learning how culture affects my mind is a lot more interesting than all definitions of culture I had to study."

The way that cultural concepts are explained or demonstrated is important. For example, a description of collectivism as "valuing the group over the individual" will give learners a particular intuitive understanding of that term—one that may contrast greatly with saying that collectivism relates to "being loyal to those who are close to us". Both statements may be intellectually defensible, but generate different forms of intuitive understanding. This is particularly important when dealing with foundational concepts. One educator might say that culture relates to the communities we belong to, and that the goal of intercultural understanding is to respect different cultural communities. Another might say that culture relates to how we make sense

of the world, and that cultural understanding relates to learning to appreciate new perspectives. Both statements may be useful and contain important truths, but they contrast greatly in terms of intuitive understanding. The first is most easily related to in terms of fairness, whereas the latter is more easily related to in terms of stepping outside of one's normal way of looking at things. These examples highlight the importance of thinking of pedagogical content in terms of the intuitive foundations of the ideas we are discussing.

## 14.10 Sample Materials

A focus on insight and deep understanding can help decide what cultural content to focus on. Naturally, the specific content of a given course or intervention depends largely on the needs of particular learners. There is no one-size-fits-all list of content areas for intercultural education. With that limitation in mind, Fig. 14.6 reproduces a program overview for a 4 hours workshop given to approximately 40 college students from various countries visiting Japan for two weeks. Figures 14.7, 14.8, 14.9, 14.10, 14.11 and 14.12 reproduce some of the materials used.

| Program overview |
|---|
| **Program theme**: Understanding Japan Through Deep Culture Learning<br>**Program length**: Four hours.<br>**Participants**: Forty students from various countries on two-week study abroad program to Japan. |
| **Learning objectives**: Help participants to get the most out of their stay by looking beyond surface culture, and gaining insights into deeper elements of Japanese culture and their own cultural learning processes. |
| **Major themes covered:** Cognition and culture; The Oz moment; Culture and the individual; the intercultural mind |
| **Evaluations**<br>Learners were evaluated through group presentations about their learnings throughout the program. In similar courses that required final exams, students were given a written test which asked about the key concepts covered in class. Students also did in-class presentations in which they connected class material to their own intercultural experiences. Grading of presentations was based on the effort and originality put into a presentation outline. |
| |

**Fig. 14.6** Program overview

**Cognition and culture**: Introduces program goals in terms of having a deep cultural learning experience while in Japan; introduces the fields of cultural neuroscience and cultural psychology as a source of research and insight into mind and culture: learn about the attentive and intuitive mind; explore the difference between surface and deep cultural learning; emphasize the need for learners to look beneath the surface of their experience and find deeper cultural patterns; encourage dialogue between visiting students and local students through discussions of patterns of deep culture in Japan. See figures below.

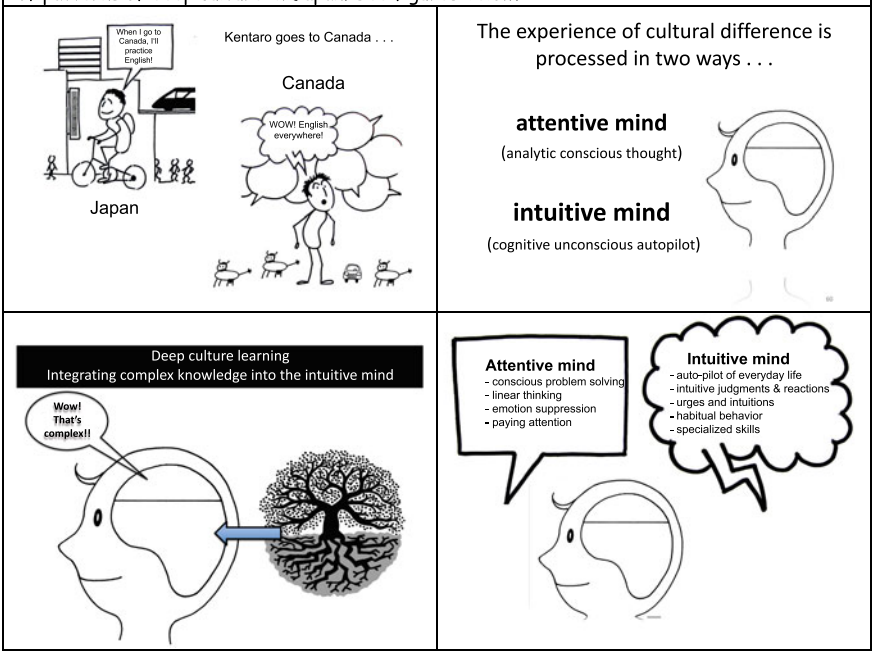



**Fig. 14.7** Cognition and culture materials

## 14.11 Toward Deep Culture Learning Pedagogy

The brief overview in this chapter, and the sample materials presented, provide a small taste of how the deep learning perspective can be put into practice. This book has focused primarily on presenting the theoretical underpinnings of the DMLL, leaving little space to explore practice. The ultimate goal of this book, however, has been to show that it's not necessary to conceive of language learning and cultural learning as separate processes. The approach outlined in this book seeks to go beyond the notion of language learning as an accumulation of knowledge or a set of skills to practice, and to show that cultural learning—as with language learning—happens most importantly at the intuitive level of self. Ultimately, language and cultural

**The Oz moment:** Introduce the concept of the Oz Moment—the feeling of disorientation when we notice small cultural differences that may be reflective of deeper cultural patterns; recognize that we respond to cultural difference on both the conscious and unconscious level; explore the impact that intercultural experiences can have on our thinking or perceptions. For sample of materials used, see figure below.

Oz Moment: Aki in LAX

Arriving in the Los Angeles airport from Japan on her first trip abroad, Aki entered a restroom and was surprised because . . . the doors of the toilet stalls didn't reach to the ground. She was like Dorothy in the Wizard of Oz. She wasn't at home anymore. Can you think of times you've experienced Oz moments? What was happening inside of you at that time? What can we learn about the deeper processes of cultural learning from these experiences?

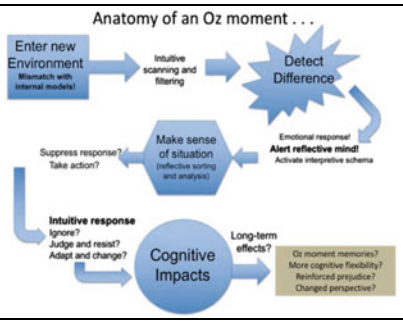



**Fig. 14.8** "Oz Moment" materials

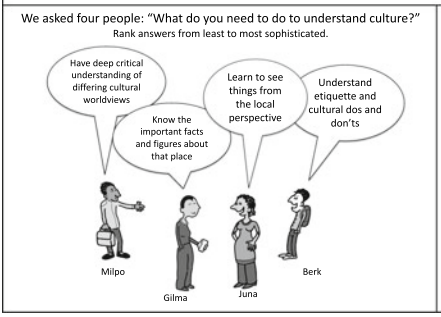
**Culture and the individual**: This section explores the notion that every individual is cultural, and that being a unique individual does not contradict the idea of shared deep culture patterns: explores the notion of deep culture as the "rules of the game" through which we express our individuality.



**Fig. 14.9** Culture and the individual materials

learning processes are not a mystery—they can be made sense of as part of human's broader capacity to learn complex skills of all sorts. This can lead to profound forms of learning that transform the way we see the world and present ourselves in it.

**The intercultural mind**: Explores the nature of cultural learning; introduces four levels of cultural learning; Used as a way for learners to see how they can deepen their understanding of cultural difference while they are abroad. Learners are asked to rank four individuals in terms of sophistication regarding cultural difference. Their guesses are then compared to the four levels of cultural learning of the DMLL. Overall, cultural learning goals are described gaining an intuitive understanding of new cultural patters and understanding local perspectives. See figures below.



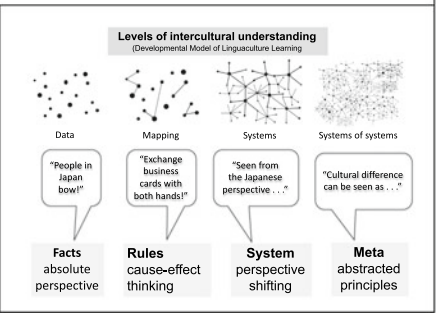
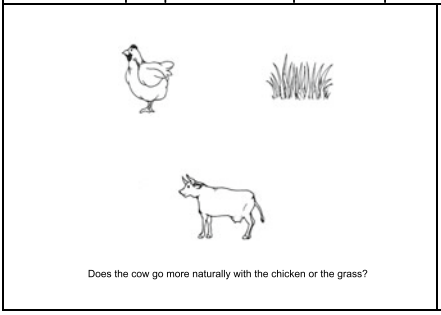




**Fig. 14.10** The intercultural mind materials

**Deep culture difference**: Introduces recent research into cultural difference in cognition; focuses on contrasting cognitive styles and forms of identity; asks students raised in Japan to share their perspective on deep cultural patterns in Japan.



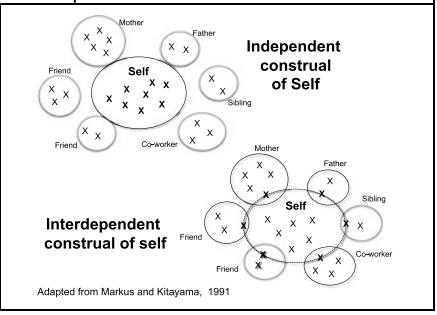




**Fig. 14.11** Deep culture difference materials

**Cross-cultural comparison:** Introduces the basics of dilemma theory as it relates to cultural comparison; explores collectivism and individualism in terms of dilemma theory; explores achieved and ascribed status; connects these concepts to Japanese social structures; asks students raised in Japan to share their experiences related to these cultural values.

**Deep culture logics**

Hanako joined the tennis circle because she loved tennis but she discovered that many members were more interested in drinking after practice than in exercising. Hanako doesn't like drinking so she didn't join them. Some members started to think she was unfriendly. She tried explaining but it didn't solve her feeling that there was a problem.

What should she do?

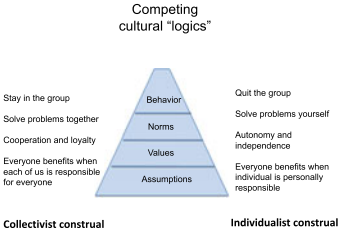



**Fig. 14.12** Cross-cultural comparison materials

# Chapter 15
# Conclusion


**Abstract** This concluding chapter encourages readers to find their own ways to interpret and apply the ideas in this work. It points out that effective language and culture pedagogy is highly personal, and is informed by the insights and experiences of the educator. It argues that there is a need for deep learning approaches to language and culture pedagogy, because globalization and information technology lends itself to surface forms of intercultural contact. It explains that the DMLL is simply one approach to deep learning pedagogy, and calls for an ongoing conversation about different paths that can lead us to deeper forms of language and culture learning.

## 15.1 A Deep Learning Mission

**A scholarly tone** This book has adopted a writing style typical of scholarly work—aiming for a balanced view of competing ideas, and a recognition of the limitations inherent in the perspective on offer. When that sort of writing is done well, it creates an impression of clarity and reasonableness. It permits the reader to draw conclusions based on the evidence presented. For a book like this one, which presents a learning model intended to shape pedagogy, this guiding principle of reasonableness is particularly important. Every reader needs to decide whether the ideas on offer make sense to them, based on their thinking and experience, and in relation to their unique context.

This nominal tone of fairness and balance can, however, mask important truths. Effective language and culture pedagogy is highly personal. It is always informed by the experiences, insights, personality, and passion of the educator. It is driven by the teacher's own linguistic and cultural discoveries. No amount of theorizing can turn an indifferent educator into an inspirational one, and a lack of theoretical knowledge does not necessarily detract from a passionate educator's work. Motivated teachers find ways to bring their personal experiences and unique insights into their classroom. The ultimate goal of this work, then, is not to convince skeptics, or supersede other approaches. It simply offers some ideas that may make the work of passionate educators a bit easier.



J. Shaules, *Language, Culture, and the Embodied Mind*,
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**A personal perspective** Like every educator, I bring my own perspective and personal motivations to my work. In high school, I was a poor student who nearly failed my required Spanish classes. I disliked schoolwork and had no professional ambitions to speak of. Interacting with Spanish speakers, however, piqued my curiosity. For the first time in my life, I started to learn something on my own, writing down phrases and vocabulary words on a small notebook I kept in my shirt pocket. Succeeding in using new expressions with Spanish speakers gave me a nervous thrill.

This tiny starting point shifted the direction of my life—I went on a homestay in Mexico, improved my Spanish, and discovered travel and foreign living. Moving to Japan and learning Japanese challenged me at deep levels of the self—I remember being squeezed into packed commuter trains, struck by how silent and self-contained everyone seemed. While my Mexican friends had told me Americans were cold and lacked heart, my new Japanese friends said we are open and friendly. I underestimated the difficulty of learning Japanese, and adjusting more deeply to Japanese thinking and social relationships. Later, I rediscovered my "Western" self by learning French and living in Paris for two years. More recently, I have been learning Indonesian. In Bali, I have made friends who are connected to the world virtually, but who may never have left the village of their birth. Language and culture learning has been, for me, personally meaningful and life changing.

**The need for deep cultural learning** Such experiences have led to my belief in the idea of *deep* cultural learning—the notion that foreign experiences can be transformative, changing the way we see the world, relate to others, and understand our self. I have been inspired by the work of Edward Hall, who felt that intercultural understanding is the critical challenge of our global age. I consider my work to be built on his foundational insights.

Unfortunately, globalization and the convenience of information technology can insulate us from deeper forms of growth and change. Ironically, just as millions have the opportunity to meet diverse peoples, and experience life in foreign places, we are tending toward more superficial forms of intercultural relations. We can choose virtual interaction at the expense of face-to-face contact, and isolate ourselves in cocoons of like-mindedness. I believe this contributes to social division and increased intolerance. While the twentieth century struggled with the dangers of centralized totalitarianism, the twenty-first century faces a crisis of social fragmentation, isolation, and the politics of intolerance.

In this context, I believe that language and culture educators have a special role to play. You cannot fake your way to foreign language ability. You must seek out intercultural contact if you are to practice and learn. You must humble yourself in the face of your own ignorance and helplessness. As we embody new ways of communicating, the feeling of being limited by the foreign language gradually shifts. When things go well, we become comfortable with our foreign language self and develop a sense for ourselves as a cultural bridge person. This deep form of learning is powerful and unique to language and cultural learning.

**Many paths to deep learning** I don't believe the model presented in this book is better than other approaches. There are many paths to deep learning. I know educators, for example, who use drama techniques that deeply engage students; I see wonderful work with near-peer role models; I know teachers who start with cultural learning from the very first class with absolute beginners; I know teachers experimenting with mindfulness and insights from positive psychology in their classes; I have seen virtual exchange produce wonderful results. These things may or may not fit into the pedagogical framework of DMLL. They do, however, represent what I see as a shared a core mission. Such practice seeks to go beyond purely intellectual approaches to pedagogy. It seeks to be relevant to real life and be personally meaningful; to touch learners at many levels of self; to encourage experimentation and self-discovery; it treats learners as whole human beings; it nurtures personal growth; it seeks deeper forms of learning.

These approaches do not, however, predominate. I regularly meet expatriates who skim along the surface of their foreign experiences. I meet students who see foreign language learning purely as a practical skill, or a box to tick off on their resume—many of whom who lose motivation to learn. There are many textbooks and syllabi that treat language learning purely as a form of information exchange. I work with language teachers who teach their L2, and who feel that their knowledge and ability is inadequate—there are always words and expressions they don't know, and they have trouble keeping up with L1 speakers. They don't see that their perseverance is inspirational. They have successfully made a transformative journey and can show students how they did it. They have a tendency, however, to trap themselves with the thought that language learning is primarily about explanations and right answers. For their part, policymakers are often focused on measurable results and predictable outcomes.

**A conversation about deep learning** Despite these challenges, it's not so hard to make progress. I recently gave a workshop to students who had signed up to take academic courses in a foreign language. Many were stressed by the difficulty of keeping up, and a number were considering giving up. I spoke to them about what it means to learn a foreign language—that the measure of success is not the number of words that we know, but our ability to feel comfortable with our foreign language self. I told them that learning a foreign language is not simply an academic challenge, it's a life challenge. I told them to greet their teachers, since forming personal relationships in a foreign language engages us at deeper levels of self. Afterward, I received great feedback from participants—they seemed to have been starved for an explanation of the deeper significance of the challenge they had taken on for themselves.

This, for me, is the essence of a deep learning approach—a focus on development and growth, and the transformative potential that comes from experiencing new ways of thinking, relating, and being. This book is an exercise in theorizing, and is informed by some rather technical disciplines, such as cultural and cognitive neuroscience. I hope that it contributes something to language and culture scholarship. At the same time, its ultimate goal is to stimulate conversations about how we can encourage

deeper forms of learning. I hope it encourages increased community among like-minded educators, and helps students to take advantage of the many opportunities they have for deeply meaningful language and culture learning.

# Correction to: FAQ of a Linguaculture Learning Approach


**Correction to:**
**Chapter 12 in: J. Shaules, *Language, Culture, and the Embodied Mind*,**
**https://doi.org/10.1007/978-981-15-0587-4_12**

In the original version of the book, the following correction has been incorporated: Figure 12.4 (incorrect) in the original versions of chapter 12 was inadvertently published. It has been replaced with the correct figure in the updated version. This chapter has been updated with these changes.

The updated version of this chapter can be found at https://doi.org/10.1007/978-981-15-0587-4_12



J. Shaules, *Language, Culture, and the Embodied Mind*,
https://doi.org/10.1007/978-981-15-0587-4_16

**Sample activity and materials – Levels of linguaculture learning**

**Goal**: Help learners understand different levels of linguaculture learning, so they can see that different activities focus on different levels of learning. Help learners become aware of their own level of learning.

**Activity Procedure**: To introduce the four levels of linguaculture learning, students are first shown a drawing that illustrates four learners, each with different ideas about how best to learn a language. Each person represents a different level of linguaculture learning. Learners are asked to guess which learners are beginners and which more advanced—ranking them from 1 to 4. The teacher may want learners to discuss the reasons for their choices. After this, the teacher shows how these four learners correspond to levels of language learning. They can also be used to show how different assignments or activities relate to these four levels.


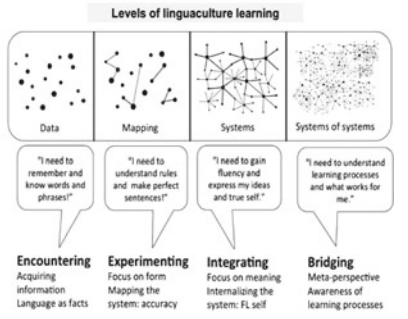


**Fig. 12.4** Teacher roles from the deep learning perspective

# Further Reading

The following is a brief list of readings that have been influential in developing the ideas in this book. I have also included other works of mine that cover-related topics.

## Culture and Cognition

(Understanding intercultural experiences)
Shaules, Joseph. 2014. *The intercultural mind: Connecting culture and cognition*. Boston, MA: Intercultural Press.

(Research into cultural differences in cognition)
Nisbett, Richard E. 2003. *The geography of thought*. New York: Free Press.

(Influential article)
Markus, H., and S. Kitayama. 1991. Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review* 98 (2): 224–253.

(Neuroscience research into cultural difference)
Han, Shihui, and Georg Northoff. 2008. Culture-sensitive neural substrates of human cognition: A transcultural neuroimaging approach. *Nature Reviews Neuroscience* 9: 646–654.

## The Intuitive Mind—Dual Processing Models

(Influential best seller)
Kahneman, Daniel. 2011. *Thinking fast and slow*. New York, NY: Farrar, Straus and Giroux.

(Dual processing models of mind)
Evans, Jonathan. 2010. *Thinking twice: Two minds in one brain*. Oxford, UK: Oxford University Press.

(Dual processing models of mind)
Wilson, Timothy D. 2002. *Strangers to ourselves: Discovering the adaptive unconscious*. Cambridge, MA: Belknap Press.



J. Shaules, *Language, Culture, and the Embodied Mind*,
https://doi.org/10.1007/978-981-15-0587-4

## Embodied Simulation

(Discusses culture and language connection)
Bergen, Benjamin K. 2012. *Louder than words: The new science of how the mind makes meaning*. New York, NY: Basic Books.

## International Living and Intercultural Understanding

(Deep culture learning)
Shaules, Joseph. 2007. *Deep culture: The hidden challenges of global living*. Clevedon, UK: Multilingual Matters.

(Deep culture learning)
Shaules, Joseph. 2010. *Beneath the surface: A beginner's guide to the deep culture experience*. Boston, MA: Intercultural Press.

(Intercultural sensitivity)
Bennett, Milton J. 1993. Towards ethnorelativism: A developmental model of intercultural sensitivity. In *Education for the intercultural experience*, ed. Michael R. Paige, 21–71.

(Classics)
Hall, Edward T. 1959. *The silent language*. New York: Anchor Books.
Hall, Edward T. 1976. *Beyond culture*. New York: Anchor Books Doubleday.

## Intercultural Communication

(Background reading)
Bennett, Milton J. 2013. *Basic concepts of intercultural communication: Paradigms, principles and practices*, 2nd ed. Boston: Intercultural Press.

## Language and Culture

(Culture in language education)
Byram, Michael, Bella Gribkova, and Hugh Starkey. 2002. *Developing the intercultural dimension in language teaching: A practical introduction for teachers*. Strasbourg: Language Policy Division, Council of Europe.

## Complexity

(Complexity in language learning)
Larsen-Freeman, Diane. 2011. A complexity theory approach to second language development/acquisition. In *Alternative approaches to second language acquisition*, ed. Dwight Atkinson, 48–72. New York, NY: Routledge.