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### KEYNOTE

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Dr Mai Nguyen-Phuong-Mai started her career as a journalist. She holds a PhD in Intercultural Communication from Utrecht University, The Netherlands. She is currently Associate Professor at [Amsterdam School of International Business](#) (AMSIB), and running her own training agency [Culture Move](#). As a professional trainer and freelance writer, she has lived, worked in, and travelled to more than 100 countries worldwide, including one year in the Middle East [tracing the path of Islam through the Arab Spring](#). She communicates as a public figure [here](#).

This keynote reflects part of her latest book publication: "Intercultural Communication – An Interdisciplinary Approach: When Neurons, Genes, and Evolution Joined the Discourse".

Her up-and-coming book will be published by Routledge in 2018, with the tentative title: *Cross-cultural Management: With Insight from Cultural Neuroscience and Evolutionary Biology*.

# Shifting Paradigm of Intercultural Communication: When Neurons, Genes and Evolution Joined the Discourse

Thank you very much for having me here.

I met Joyce Jenkins – President of SIETAR UK – a few months ago in Dublin at SIETAR EUROPA where I was invited to talk about my newly released book on Intercultural Communication. This book is the result of teaching Intercultural communication for almost 10 years, and seeing more questions than answers.

Sitting in my classroom in Amsterdam are people from all over the world. Many of them are true representatives of a youth culture that are global minded, multi-lingual, multi-cultural, flexible, and living constantly in intersectionality. They have a burning desire to change the world, and they believe they can change the world. It is then quite a challenge to tell these young people in the face that they, or humankind in general, are simply products of a certain culture. Put it this way: How can you change the culture when you are its product?

A student gave me a reminder: “Take a tree out of the ground, it will die. Take a person out of her land, she will survive.”

Then a few years ago, I was given book called *Wired for Culture*, written by the biologist Mark Pagel, praised to be the best book on culture so far by the prestigious journal *Nature*. It is the bridge that led me to learn about cultural neurosciences. The field is new, but even in its infancy, it is already challenging a history of half a century of our discipline. In my book, I carefully introduced some of its insight. I recognized that there is a scientific foundation to support a school of thought that is very much shadowed by the mainstream of Hofstede and the like. Many interculturalists have talked about *culture as dynamic*. But only now that we have the neural and evolutionary basis to support it.

Today, I will share with you some insight taken from the book.

Mots of us here have been students of the static paradigm – a mainstream in our field. It posits that culture is stable, values are difficult to change. This perspective on culture leads to the following assumptions: Difference as a starting point; Values guide behaviors; Values are binary; and Culture is the software of the mind

Let’s tackle these assumptions one by one, and see how an interdisciplinary approach can give us more insight, and rethink what we have assumed to the truth.

## **1. Difference as a starting point**

I’m showing you here a famous metaphor of culture: the floating iceberg. After the Second World War and as the Cold War began, two major powers emerged with fierce competition between opposing ideologies, led by the Soviet Union and the US. International diplomacy was characterized by distrust, tension and readiness for reprisal. In this context, the history of intercultural communication study began at the US Foreign Service Institute in the 1950s. At this time, it was clear that the Americans had shortcomings on the diplomatic front compared to the Russians. While 90 per cent of all Russian diplomatic staff spoke the local language, the American diplomatic

corps seldom did so, and thus lagging behind. Edward Hall – a founding father of the field- was employed to educate them about how and why cultural differences could contribute to the failure of their missions.

Given this context, it is understandable why Hall regarded difference as a starting point. Hofstede stated in his website in 2009 that “Culture is a source of conflict than synergy,” and “cultural difference is a nuisance at best and often a disaster.” In a study, for every one paper that states the positivity of cultural diversity, there are 17 others that focus on its negative side.<sup>1</sup> This bias towards differences has led to a volume of terminologies such as cultural misfit, cultural collide, liability of foreigner. In management study, “cultural distance” has become a major keyword and metaphor that equates cultural difference with potential problems that businesses face when crossing borders. You can find in the reference list a journal article<sup>2</sup> I published recently on how the iceberg metaphor has unwittingly and harmfully influenced the theories and practice development of our discipline via a process called embodied cognition. It is the idea that not only the mind influences the body, but the body influences the mind as well. An iceberg primes our body for a cold, unfriendly, dangerous feeling, and in turn, this has an impact on how we perceive what an iceberg presents: Culture and cultural exchange.

We’ve passed the Cold War era. So how useful is it to still take difference as a starting point? Neural studies show that when we see people with different racial features, our amygdala lit up more than when we see people who look more like us. Note that the amygdala deals with *all emotions*, but it reacts the quickest to *fear*. Why? Because fear is the best mechanism to motivate us to deal with survival. With fear, we either fight, or flight.

Our ancestors lived a long time on the savannah where their survival depended on their own small tribal group. Similarities mean ingroup, safety and trust. Differences mean outgroup, caution, and threat. The ability to recognize in a split second who are “friends” and “foes” could mean “life” or “death.”

We don’t live in small tribes anymore. Both people from ingroup and outgroup can be trustful and dangerous. However, our brain still operates in the same system. It is such strong biological feature that 2-day-old infants prefer their mother’s face than those from others. A 2017 study of 8 million facebook users shows that most of our interactions are with those who are a lot like us.<sup>3</sup> This explains the “just-like-me” bias in hiring. Opposites attract, but often when: (1) similarities have been established, and (2) there is no element of fear.

This insight requires us to consider our approach. When we start a training or a class with a cultural blunder, a failure because people don’t understand differences, unwittingly, we are capitalizing on the neural pathway of fear. It attracts attention, it runs so effectively because it is operated on fear. Fear is the most natural way and the quickest way to make the brain active.

While it is a strong motivation to learn, it is not sustainable, because reacting to fear costs a lot of energy, which can easily lead to burnout. We may look like we work quicker, harder, but in fact, we are just protecting ourselves. Using difference as a starting point does our brain a disservice, by preparing us to be reactive rather than proactive, defensive rather than cooperative, viewing diversity as problems rather than opportunities.

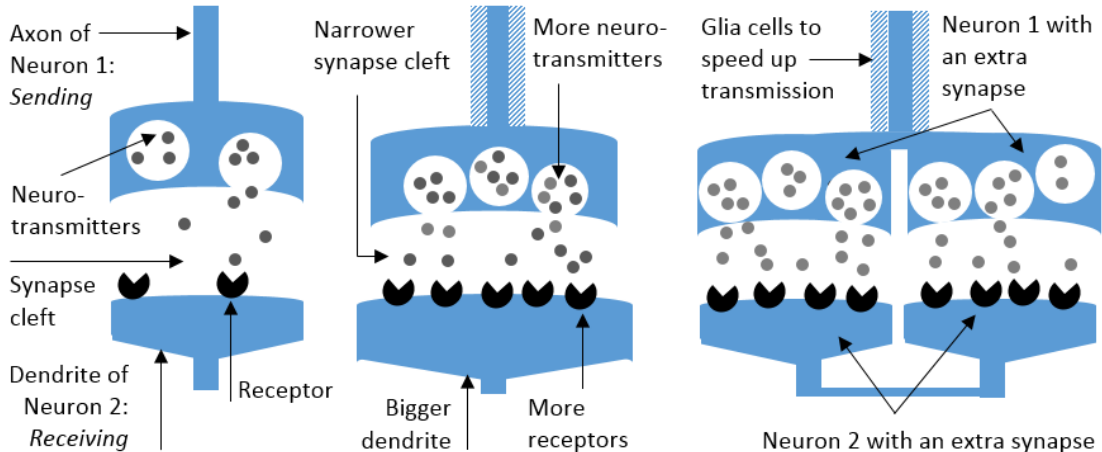
## **2. Values guide behaviors**

A consequence of the static paradigm is that stable values act as anchors, so we can predict the behaviors. If you want to communicate effectively with people from a different culture, you should learn their values. It is very reassuring because it reduces ambiguity as we can predict the future and explain the unknown based on a stable framework.

However, cultural neuroscience challenges this point of view. Values guide behaviors, but repeated behaviors can slowly change the values as well. Foot-in-the-door strategy is a well-known tactic in marketing and negotiation. Once people agree to go with the first step (e.g. sign a petition), they would feel an inner need to go all the way through (e.g. give a donation), making their attitude consistent with their behavior. People fight for what they believe, but also have to believe what they are fighting for. Once given a role, we soon act that role and gradually become that role.

I'll show you an example of how repeated behavior can change the culture dramatically. Violence is a daily routine in high security prisons. But when the warden in a Californian prison approved an 11-day trial of compassion game, the culture started to change. Gang leaders identified themselves as compassion ambassadors and inmates compassionistas. They earned points by logging in compassion acts such as sharing food and helping to clean up each other's cell. The 11-day trial observed 4600 acts of compassion and zero violence.<sup>4</sup> The game changed people significantly, for example, a women known as "evil" changed her name to "Tinker Bell" – a sweet, sassy, and tiny fairy who always has her friends' back.

Brain science backs this up with the notion of brain's plasticity. When two neurons communicate, they do not really touch each other, but sending neurotransmitters through a small space called a *synapse*. Here is a model I created to make it easier to understand. Neuron number 2 will catch the neurotransmitters from neuron number 1 with a number of receptors. If we repeat a certain thought, an action or a ritual frequently enough, the synapse will get smaller, the dendrite will grow bigger, and as you can see, there will be more neurotransmitters and receptors. Eventually, the neuron will grow a new branch, and the sending-receiving of neurotransmitters become super quick, effortless, even subconscious. That's when a change has been internalized.



*Long-term potentiation (Nguyen-Phuong-Mai, 2017)<sup>5</sup>*

This capacity of the brain thus makes sure that thoughts and action that occur once will be likely to occur again. I want to show you an example of how neurons grow in human after 170 hours. It is fascinating to see how the brain physically rewires itself so we can forge new path ways, create new habits, and adapt to different cultures. This is exactly what is happening in your brain right here, right now. Every thought rewires your brain. In a sort of chicken and egg, so to speak, repeated thought and behaviors will create strong neural pathways, and in turn, established neural pathways will guide our behaviors.

Even when thought and action contradict each other, making us having a cognitive dissonance, brain plasticity enables us to compromise and change our values slowly to be in sync with the undesired/unwanted behaviors. In other words, we will slowly learn to love what we hate. That is why many people during the Nazi slowly found a way to conform with the brutality and managed to justify their actions. It is essentially a defense mechanism.

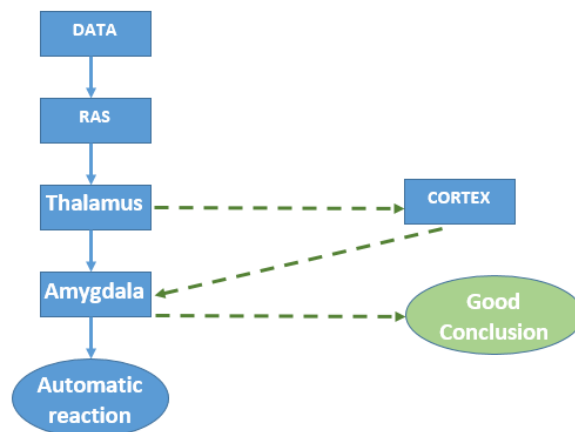
We often believe that the mind leads the action, but action can change the mind as well. Regardless of the nature of the change, evolutionary, people tend to see the new situation more positively and the old more negatively once a decision has made, a plan has been laid out, or action has been committed.<sup>6</sup> Changes don't just start from within. For those who are tasked with building a business culture, this is good news. There is no need to wait until we are 100% sure about the change, since acting can compensate that doubt.

We now have the neural evidence to confirm that we not only think ourselves into action but also act ourselves into a certain way of thinking. It is actually what ancient philosophers insisted: "We are what we repeatedly do" (Aristotle). Values guide behaviors, but behaviors change values as well.

### 3. Values are binary

An important premise of the static paradigm is that values are binary. A culture is masculine, feminine, or somewhere in between. It is essentially "either/or" and never "both/and".

This binary thinking pattern has a lot to do with how the brain works. Any stimulus entering our central nervous system is relayed in two directions: (1) "System 1" takes only nanoseconds to reach the amygdala – our emotional detective device; and (2) "System 2" takes information towards the *cerebral cortex* – our thinking brain and consciousness. Despite being activated simultaneously, the low road has priorities. The amygdala can respond within 12-80 milliseconds. It takes longer for the information to be processed via system 2 by our thinking brain, about 200-400 milliseconds longer than the system 1. Thus, *before* the cortex has managed to figure out what the object actually is (consciousness), the amygdala already decided whether the object is good or bad.



*System 1 and system 2 pathway through reticular activating system (RAS) and thalamus (Nguyen-Phuong-Mai, Forthcoming)<sup>7</sup>*

This “quick and dirty” assessment helps humans beings survive based on snap judgement, but it also means that evolution has created a neural support for binary reaction of “good or bad”. Hence, the good-bad judgement made before the awareness kicks in is called *subconscious*. This quick and binary assessment is essential for survival, because we can save time and escape danger without too much thinking. However, it also means that we have the tendency to disregard complexity by categorizing them into a simple binary, “either-or” system. A person is either good or bad, not both; a company is either ethical or immoral, not both; a relationship is either love or hate, not both.

Does that mean we can’t comprehend complexity? Of course not, but it takes time for information to be processed via system 2, reaching consciousness. Logical and clear thinking can be achieved when the amygdala does not guide our behaviors on its own, but acts as input with essential emotional input. A good conclusion is made with both logics and emotion, allowing not binary but plural thinking to occur. Thus, a complex mind is possible as long as there is TIME and the absence of FEAR.

In the same vein, we can comprehend a complex culture without the need to simplify its according to a binary system. The reality is dynamic and not a simple spectrum of two polar extremes. A 2016 study shows that 80% of the difference is *within* a population.<sup>8</sup> Also according to this study, country is one of the worst container of culture (together with age and gender), while the best one is profession. In other words, any two accountants in the world would have more than similarities than two people born in the same country and probably work in the same office but with different job functions.

A binary thinking is only useful when we begin to grasp the complexity, but not when we need to deal with it by solutions, policies, and mutual interests. When such a logic becomes the foundation of theory development, it is more destructive. The fact that difference within is greater than difference between is a reminder for interculturalists that values of a culture can be both masculine and feminine, both collectivistic and individualistic. This is especially the case in multicultural societies, which is increasingly the case of many societies today. An average does not make sense in such a case.

#### **4. Culture is software of the mind**

At this point, we know that neuroscience suggests that the brain is capable of supporting an incredible level of flexibility and plural thinking. We can comprehend very complex problems and accommodate “opposing” sets of values, depending on the given context

This shifting of values has been observed in both behavioral and neural studies with priming techniques and fMRI. The plasticity of our brain enables simple cues such as looking briefly at “I” and “we” to trigger us to think in a self-oriented or group-oriented way.<sup>9</sup> For example, people primed with individualistic values showed enhanced evaluation of *general* self (e.g. I’m honest), whereas people primed with collectivistic values showed enhanced processing of *contextual* self (e.g. *When talking to my mother*, I am honest). Contexts dynamically shape neurobiological mechanisms of the self because the malleable brain allows us acculturate to new cultural environments. Our brain can be so plastic that we can represent *multiple cultures* in our mind,<sup>10</sup> switching between values simultaneously, communicating very complex information, to the point that we can be both collectivistic and individualistic, as long as a specific context activates that element in us.

This insight demands us to reconsider the notion that culture is the software of the mind, and replace it with the suggestion from neuroscience: *context is the software of the mind*. Being a multi-linguistic person

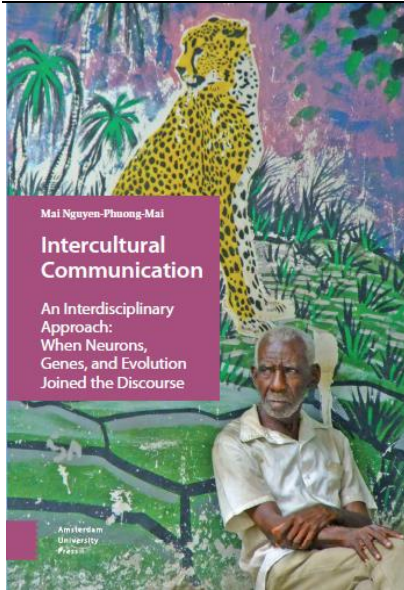
myself, I often (sub)consciously choose an appropriate language as a mechanism to respond to the context effectively. For example, I would often negotiate my position in Dutch – which allows me to bypass a certain social constraints and be ruthlessly direct if needed.

To conclude, the interdisciplinary insight has challenged us to reconsider several assumptions in the field. The take-away are:

- *Similarity as starting point*: Focus on how to identify similarities, how to establish mutual interest. This is a more sustainable approach than using fear as a motivation of learn about cultural diversity.
- *Values and Behaviors change each other*: We think ourselves into action, and act ourselves into a certain way of thinking. We are what we repeatedly do (Aristotle).
- *Value are dynamic*: Binary reactions begin as a natural tendency, but plural thinking occurs if given more time, with no fear.
- *Context is the software of the mind*: Our brain is so plastic that it can represent multiple cultures, activate matching mindset, and conduct matching behaviour, depending on the context. With the brain's plasticity, we can construct a multicultural mind. We are not only the product but also producer of our own culture. That gives us back the authorship as active agents rather than a cultural dope.

The static paradigm is essential, but not enough. Many of its framework can discourage us to explore the complexity of the world and develop a plural thinking approach that our brain is capable of. My opinion is, we should see these frameworks as Osland and Bird<sup>11</sup> have named them: *sophisticated stereotypes*.



**NEWLY RELEASED (May 2017)**
**Intercultural Communication – An Interdisciplinary Approach:  
When Neurons, Genes and Evolution Joined the Discourse**

This book is an introduction to Intercultural Communication (IC) that takes into account the much neglected dynamic paradigm of culture in the literature. It posits that culture is not static, context is the driving force for change, and individuals can develop a multicultural mind. It is also the first IC textbook in the field that incorporates insight from evolutionary biology and the newly emerging discipline of cultural neurosciences. Such an interdisciplinary approach provides readers with new angles, encourages critical thinking, and sometimes challenges conventional knowledge in the field. The combination of the author's multicultural academic and journalistic background contributes to a balance of diverse perspectives and world views on cultural theories and discourses. The book is ideal for courses in Intercultural Communication with study cases, discussion topics and class activities.

Connect with the author at [CultureMove@CultureMove.com](mailto:CultureMove@CultureMove.com)

Discussion at [www.facebook.com/culturemove](https://www.facebook.com/culturemove)

Price: €29. Ordered at [www.aup.nl](http://www.aup.nl) with discount code: ICOMMUNICATE for €25

**FORTHCOMING (August 2018)**
**Cross-Cultural Management:  
With Insight from Cultural Neuroscience and Evolutionary Biology**

This book from Routledge is a comprehensive read for both students and professionals alike. It includes topics that often go missing in the cross-cultural management's foundation reading materials such as Diversity Management, Cross-Cultural Leadership Competence, Culturally Responsive Marketing, HR and Multicultural Talents, and Cultural Finance.

From methodological point of view, this book offers a refreshing perspective by incorporating insight from evolutionary biology, psychology, and the newly emerging discipline of cultural neurosciences. For example, the topic on Globalization is explained from the evolutionary point of view, and the chapter on Organizational Change is based on the neuroscience of trust, fear, and action-oriented thinking.

Publishing Plan: August 2018

<sup>1</sup> Gunter K. Stahl and Rosalie L. Tung, "Towards a More Balanced Treatment of Culture in International Business Studies: The need for Positive Cross-Cultural Scholarship," *Journal of International Business Studies* 46, no. 4 (2015): 391-414, accessed March 29, 2017, doi: 10.1057/jibs.2014.68.

<sup>2</sup> Mai Nguyen-Phuong-Mai, "A critical analysis of cultural metaphor and static cultural frameworks with insight from cultural neuroscience and evolutionary biology," *Cross-cultural & Strategic Management* 24, no.4 (2017):530-553.



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- <sup>3</sup> Wu Youyou, David Stillwell, Andrew Schwartz, Michal Kosinski, "Birds of a Feather Do Flock Together," *Psychological Science*. January 1, 2017, Vol. 28, Issue 3, Pages 1-9
- <sup>4</sup> <https://www.youtube.com/watch?v=zZLGHZ1ISjU>
- <sup>5</sup> Mai Nguyen-Phuong-Mai, *Intercultural Communication – An Interdisciplinary Approach: When Neurons, Genes and Evolution Joined the Discourse* (Amsterdam: Amsterdam University Press, 2017), 31.
- <sup>6</sup> Harmon-Jones, E., & Harmon-Jones, C. (2002). Testing the action-based model of cognitive dissonance: The effect of action-orientation on post-decisional attitudes. *Personality and Social Psychology Bulletin*, 28, 711-723.
- <sup>7</sup> Mai Nguyen-Phuong-Mai, *Cross-cultural Management: With insight from Cultural Neuroscience and Evolutionary Biology* (Routledge, forthcoming).
- <sup>8</sup> Richard A. Shweder and Maria Sullivan, "The Semiotic Subjects of Cultural Psychology," in *Handbook of Personality: Theory and Research*, ed. Lawrence. A. Pervin (New York: Guilford, 1990), 399–416.
- <sup>9</sup> Joan Y. Chiao et al., "Dynamic Cultural Influences on Neural Representations of the Self," *Journal of Cognitive Neuroscience* 22, no. 1 (2010): 1-11, accessed March 29, 2017, doi:10.1162/jocn.2009.21192.
- <sup>10</sup> Ying-yi Hong et al., "Multicultural Minds: A dynamic Constructivist Approach to Culture and Cognition," *American Psychologist* 55, no. 7 (2010): 709-720, accessed March 29, 2017, doi: 10.1037//0003-066X.55.7.709.
- <sup>11</sup> Joyce S. Osland and Allan Bird, "Beyond Sophisticated Stereotyping: Cultural Sensemaking in Context," *Academy of Management Executive* 14, no. 1 (2000): 65-79, accessed March 29, 2017, <http://www.jstor.org/stable/2095521>.