

Intercultural communication: An interdisciplinary approach. When neurons, genes and evolution joined the discourse (a review)

Original work by Dr Mai Nguyen-Phuong-Mai published by Creative Language Coaching Limited 2017
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Published in Training, Language and Culture Vol 2 Issue 2 (2018) pp. 95-99 doi: [10.29366/2018tlc.2.2.7](https://doi.org/10.29366/2018tlc.2.2.7)

Recommended citation format: Williams, P. (2018). Intercultural communication: An interdisciplinary approach. When neurons, genes and evolution joined the discourse (a review). *Training, Language and Culture*, 2(2), 95-99. doi: [10.29366/2018tlc.2.2.7](https://doi.org/10.29366/2018tlc.2.2.7)



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In the preface to this book, Dr Mai Nguyen-Phuong-Mai describes how as a journalist she was always struck by the emphasis people put on cultural difference and, on entering the field of intercultural communications as an academic, she felt this was repeated in her new field of study. Indeed, she points out later on in the book how the discipline of intercultural communications was founded in the context of the Cold War and an environment of conflict, which led to a focus on difference and obstacles between cultures rather than similarities. Driven by a desire to find what different cultures could share rather than stress their differences, Dr Mai explains how she went on a journey to explore the subjects of biological evolution and cultural neuroscience – neurons, genes and evolution. This book is her summary of

that journey. The book is a penetrating and wide-ranging tour of intercultural communications through the prism of these new disciplines.

The book is written in a style that will appeal to both academic readers but also practitioners. Each chapter highlights at the beginning the objective of the chapter and then concludes with a summary not just of the theoretical points made but also practical action steps, which will be of great help to readers and students to come to terms with her wide-ranging arguments and concepts that may well be new to many. As well as introducing new disciplines to the study of intercultural communications, Dr Mai's book is characterised by her promoting non-mainstream cultures in order to counter what she sees as the dominance

of US and European views in intercultural communications.

She achieves this through her use of extensive case studies taken from non-mainstream cultures, her wide-ranging citations and marvellous use of compelling visuals to support her arguments. A list of where her visuals come from illustrates this point well. It includes: Papua New Guinea, India, Mexico, Tunisia, Bosnia & Herzegovina, Norway, Tunisia, Japan, Libya, Yemeni, European Union, Egypt, Dubai, Lebanon, Oman, Sri Lanka, Malawi, Malaysia, N Korea, Vietnam, Philippines, Bhutan, Pacific Islands, Finland, South Africa and Pakistan.

Dr Mai opens her book with a chapter which acts as the foundation stone for the rest of the book. The author gives the reader a whistle stop tour through the role genes, neurons and evolution have in determining culture and behaviour. Drawing on her extensive research of these subjects and citing a wide range of sources including the highly influential *Wired for Culture* by Mark Pagel, Dr Mai explains how humans evolved from surviving through genetic evolution like other animals to short-cutting this process by developing social learning or culture and that culture should, therefore, be defined as a strategy for survival that is unique to humans and that with our capacity for social learning we no longer have to rely on very slow moving genetic improvement like the rest of the animal kingdom.

Having defined culture thus, Dr Mai then asks a key question – why then do we have cultural diversity? I.e. why is there not just one culture but instead a huge number?

First, Dr Mai looks at the relation between environment and culture and the argument that environment is the main cause of there being different cultures. Citing Aristotle, Darwin's environmental determinism, Jared Diamond and others, she settles on the work of Julian Steward and his theory that the relationship between environment and culture is a dynamic one and that culture is not a consequence of nature but rather a 'strategy to interact with nature'. Dr Mai then goes on to explain the existence of different cultures where the environment is identical. To address this question, Dr Mai quotes Pagel's argument that in essence the cause of diversity is a result of cultures seeking to protect themselves from having their ideas and knowledge stolen, i.e. that by creating a distinctive culture, knowledge could be safeguarded and that cultural barriers allowed knowledge to be shared in a more regulated and controlled way with groups that were not part of a given cultural group.

Above all, language is the barrier that was created to create this regulation and control. Dr Mai argues that the complexity of our culture must be seen from a bigger angle, one that involves the physical and genetic make-up of our body as well

as the interaction between environment and culture. Building what she calls 'diversity pathways', i.e. the factors other than environment that contribute to cultural diversity, she looks in turn at the role of genes, brain and behaviour.

First, genes. Dr Mai argues that the power transition that has taken place in humans from genes to culture described above is not one-way, i.e. just as genes are crucial mechanisms for turning useful cultural values into genetic traits, so the opposite is the case, and that this is crucial to understanding human diversity. She illustrates this with a fascinating case study of the relationship between the so-called 'depression gene' and East Asian cultures.

Next, Dr Mai turns from looking at genes to looking how the brain creates diversity pathways, introducing the key notion of brain plasticity, i.e. that our neural machinery system is intrinsically malleable. She concludes from this – and this is critical to the rest of the book – that the plasticity of the brain and the idea that the brain recreates itself and that there is no fundamental core identity in the brain means that we can train the brain and learn new tricks, adapt to new environments, adopt new cultures and reshape and discover many different aspects of our identities and personalities. It is this argument that underpins Dr Mai's faith in humans' ability to adapt and embrace cultural difference.

Finally, Dr Mai introduces the notion of behaviour as an influencer of cultural diversity. She points out that we now know that behaviour can help shape the brain and that repeated behaviours reinforce specific neural pathways. She shows through case studies that behaviours by groups or individuals can influence and change cultural systems.

Dr Mai concludes this chapter with what in some ways seems to be a contradiction to her arguments to date. She argues that as well as creating cultural and linguistic diversity as a tool to create regulation between groups, humans also are the only animal that can extend care beyond kinship to unrelated individuals.

She points to research in the neurosciences, biology and psychology as challenging the self-interested model of *homo economicus* and argues that humans are naturally cooperative. It is this impulse, she argues, that leads to human beings evolving into larger groups and communities and the phenomenon of globalisation.

Turning to neuroscience, she argues that as humans are exposed to different cultures, our brains can become culturally tuned with new neural activities which enables us to adapt to different cultures. She concludes with the view that 'if culture is a strategy, then it will be the survival of the most cultured.'

Having established her foundations in chapter one, Dr Mai goes on in subsequent chapters to look at a number of wide-ranging issues relating to intercultural communications. In chapter two, she looks at the issue of how culture evolves; in chapter three she covers stereotyping; chapter four – non-verbal communication; chapter five – a taxonomy of diversity; chapter six – intercultural competence; and chapter seven – diversity management. The remainder of this review will focus on chapters three, five and six to attempt to give the reader a broader understanding of the book's main arguments.

The Evolving Culture. In chapter two, Dr Mai turns her attention to how culture can evolve, continuing to lay theoretical ground for her arguments. She posits that since culture is such a dynamic force, in order to analyse different cultures effectively, we need first to agree on some generic frameworks that will help answer how to deal with the complexity and dynamics of culture. To do this, Dr Mai chooses a framework expressed as the metaphor of a tree to reflect what she sees as the three major components of culture: the roots of a tree, representing the fundamental concerns and evolutionary root of a culture, i.e. the universal elements of a culture such as politics, art, religion; second, the branches of a tree representing values which she defines as '*our attitudinal positions on the fundamental concerns of a culture*'; thirdly, the leaves of a tree

representing outward expression, i.e. the objects, symbols and behaviours that are the outward expressions of fundamental concerns and values. Using this model, and the perspective of evolutionary biology and neuroscience, Dr Mai then looks at the varying schools of thought with regard to the important issue of the speed and nature of change within cultures, arguing that fundamental values are stable, values are dynamic and outward expressions change fastest of all. She argues above all that neuroscience tells us to adopt a non-binary, dynamic view of cultural change and one that can embrace paradox as normal.

Introducing a second framework, which she calls 'The Inverted Pyramid Model', Dr Mai also challenges what she calls the '*skewed focus on culture as a purely group phenomenon*.' She uses her inverted pyramid model to look at culture at three levels of analysis: universal, collective and individual.

Stereotype: A Necessary Evil. The third chapter is one of the most detailed with regard to looking at how our brains affect us and, in this case, cause us to stereotype. Dr Mai describes clearly how our brains are wired to stereotype – our evolution means that stereotyping has evolved as a survival mechanism that allows our brains to make snap judgments – particularly useful when our habitat was that of the bush and all its accompanying

external threats. However, this threat detection mechanism is carried out by the amygdala and does not allow the split second slower neo-cortex to provide a more nuanced picture. Hence, we tend to be naturally biased and tend to categorisation and worse, prejudice and discrimination.

Having explained this, Dr Mai goes on to outline practical strategies for living with stereotypes and reducing prejudice. She points out that most patterns of stereotyping are socially constructed by our cultures, which means that we can change the patterns and train our brain. This chapter is complemented by the last chapter of the book which looks at diversity management and at practical ways to promote diversity.

A Taxonomy of Diversity. In chapter five, Dr Mai takes on looking afresh at some of the key taxonomies used historically by intercultural theorists to understand the complexity of culture. In particular, she looks at the taxonomies of group attachment (i.e. individualism v collectivism), hierarchy acceptance, gender association, uncertainty avoidance and time orientation. By drawing on neuroscience and evolutionary biology, but also applying her inverted pyramid lens of the individual, collective and universal perspectives, and rich case study material, she sheds interesting new light on these much-debated

areas, challenging static models, stressing the importance of context and challenging non-binary thinking, arguing in place that it is important to embrace paradox at all times.

Intercultural Competence: Creating Yourself. My favourite chapter of the book, personally, and in my opinion, perhaps, the most important is chapter six. For much of this chapter, Dr Mai looks in depth at the different stages of acculturation using Milton Bennett's DMIS framework and also highlighting how Cultural Intelligence is not just a matter of cognitive awareness, but is also motivational and behavioural.

However, having done this, she then draws on how the notion of a malleable and evolving sense of self rather than a rigidly set one can help develop cultural intelligence. Referencing post-modern thinking, Buddhism and the writing of Professor Michael Puett and Christine Gross-Loh in *The Path*, she stresses how modern neuroscience favours this more fluid concept of personality, i.e. that it is possible to have multiple selves.

However, it requires work and breaking fixed patterns of behaviour that often start very young. As Agata Szkiela states on the back cover of the book, this book offers a fresh perspective on many well-known models of culture and will no doubt prove invaluable to academics and practitioners alike.