This theoretical article is a chapter of the upcoming IAGP book on multiculturalism. It serves as a taster. The book will feature chapters by highly experienced authors, offering practical tools for therapy.

For more information about the topic and the book's release date, contact the author at Dr.Carlos@ActiveLearningInt.com.

Other articles by the author: https://playoflife.com/blog

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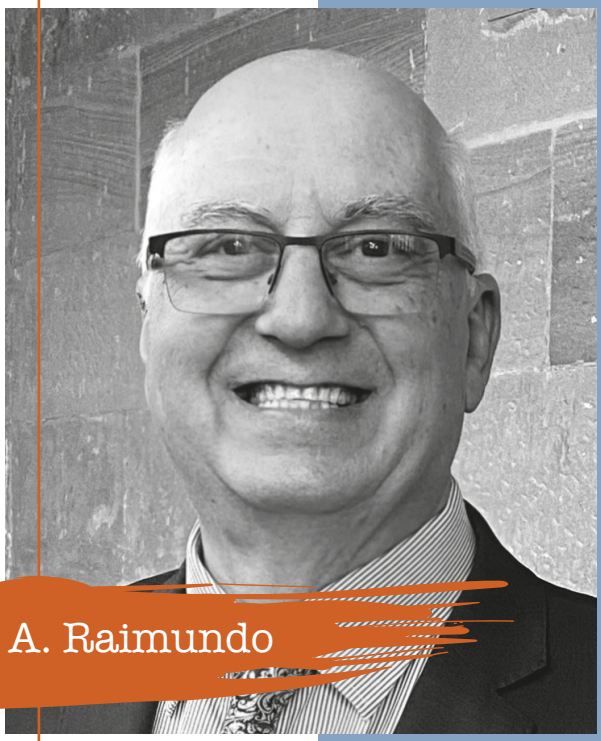

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CHAPTER 10

The one thing that separates us: Responding to diversity: A neuro-correlate approximation

This chapter explores the brain's response to cultural differences as a fundamental challenge in effectively managing diversity. The inability to appropriately address these differences delays the process of constructive transformation toward a world characterised by collaboration, peace, and freedom. The focus is on two neural systems: the insula and the precuneus. These regions play a critical role in fostering empathy, protecting individuals from perceived threats, and promoting harmonious living. However, when these systems malfunction, they can lead to intolerance, division, discrimination, social discord, and even war. Understanding these neural mechanisms can aid in developing interventions that encourage constructive individual and collective approaches to diversity, thereby reducing the risk of conflict.

INTRODUCTION

> "Societies can be judged in many ways, but the ultimate test is how people treat people" (*Whatever happened to the human race?*, Francis Schaeffer).

The aspirational concept of unity in diversity is often embraced and widely promoted as a path to fostering a world of peace and harmony. But is this a realistic goal for humanity, or is it merely a romantic ideal? To address this aspiration, we must first confront the complexity of how nature handles diversity and how it is intrinsically linked to the way we manage differences. Lack of awareness of these innate drives can perpetuate conflicts and divisions, ultimately leading to war.

This section integrates brain research, mainly focusing on the precuneus and insula–regions crucial to emotional processing and perception (Freton et al., 2014; Singer et al., 2009). Emotions, essential for survival, can sometimes misfire, resulting in intolerance and discrimination–behaviours reminiscent of intraspecific aggression seen in animals. Richard Dawkins' (1976) concept of "selfish genes" underscores how competition and social hierarchy can drive these behaviours. However, he argues that humans can learn to cultivate generosity and altruism, countering our natural selfishness. Achieving this transformation toward more inclusive behaviours begins with understanding the fundamental biological responses to diversity.

This chapter argues that fostering healthier responses to differences is vital for building a humane society and central to the transformation needed to create a world characterised by freedom and peace. By exploring the biological and neuroscience foundations of how humans navigate differences, especially in multicultural contexts, this work sheds light on how diversity can act as a catalyst for constructive change.

The text delves into the theoretical framework, examining the role of the insula and other neural mechanisms in shaping our emotional and moral responses. Following, it offers practical applications, demonstrating how these theoretical insights can guide real-world interactions and support the transformative potential of diversity in multicultural settings.

What we are facing is not new

Humanity has risen to global dominance through imagination, communication, and collaboration. Superior cognitive abilities and complex social structures enabled Homo sapiens to outcompete and eliminate other species. This tendency to perceive and react to differences–whether in ideologies, cultures, or appearances–has resulted in discrimination, racism, and intolerance, behaviours deeply rooted in our brains (Allport, 1954; Weichselbaum & Banks, 2021). These behaviours can lead to intraspecific aggression; members of the same species attack each other, often driven by competition for resources or social hierarchy. For example, dominant chickens peck at weaker ones displaying signs of illness, a behaviour referred to as the "law of the chicken coop," ensuring the group's survival. Richard Dawkins (1976) argues that "selfish genes" drive such behaviours, but he advocates for teaching generosity and altruism to counteract them. We may have the chance to upset their designs.

Despite social progress, global crises reveal ongoing struggles with diversity while policies and education aim to address these issues, conflicts, wars, and force migration persist. Intolerance of differences, often felt as disgust, is a deep-seated emotional response (Herz, 2012). Understanding these brain responses, particularly in the insula and the role of the precuneus, can guide more inclusive societal behaviours (Cavanna, 2007).

A different approach

Canadian neuroscientist Rachel Herz (2012) suggests that many human responses–such as impatience, intolerance, and repulsion, which can lead to conflict and war–may stem from the biological response of disgust. Disgust arises from subcortical, nonverbal brain circuits that produce automatic, nonconscious reactions. Initially amoral, these responses can evolve into ethical judgments, manifesting in animosity, discrimination, racism, and other oppositional behaviours.

Herz (2012) highlights that disgust arises as a reaction to perceived physical, personal, or moral threats, often exacerbating tensions within relationships–whether between individuals, parents and children, partners, or across differing cultures and lifestyles. This emotion, although powerful,

is particularly challenging to identify in interpersonal dynamics due to its rapid onset and the reluctance many feel to confront deeply ingrained, often irrational, beliefs. Reflecting on my own journey, I came to recognise that my complex feelings toward my country of origin were not rooted in anger, as I had long assumed, but rather in disgust. It was a visceral response to the political landscape and the widespread acceptance of manipulative, demagogic governance. Had I understood this earlier, it would have spared me countless frustrations and emotional turmoil.

Friedman's fable "The power of belief" (2013) illustrates the difficulty of recognising entrenched beliefs, portraying a man convinced he is dead. Similarly, acknowledging feelings of disgust, especially towards loved ones, complicates emotional awareness. As Frankl (1963) suggests, awareness of these raw emotions provides a space for choosing our responses, fostering growth and freedom. Recent neuroscience research on the precuneus and insula illuminates the neuro-mechanisms behind human responses to differences (Cavanna, 2007; Cavanna & Trimble, 2006).

The precuneus: Gateway to self-awareness and consciousness

> "The quieter you become, the more you can hear" (Rumi).
>
> "Be still and know that I am God" (Psalm 46:11, NIV).

The precuneus, located in the medial parietal lobe near the back of the brain, functions as an internal compass, aiding discernment and decision-making by detecting life-giving or life-threatening behaviours. It is notably active during rest, such as meditation, emphasising its role in accessing emotional information that fosters a humane society. This concept resonates with various philosophical and religious traditions. For instance, J. L. Moreno (1946) and the Judeo-Christian tradition speak of a divine essence within everyone, suggesting a primordial nature or godhead.

Research indicates that the precuneus functions independently of cultural ideologies, unlike the insula, which responds based on cultural norms (Freton et al., 2014). This distinction is crucial in transcultural contexts, where ideologies may overshadow human instincts. Anatomically, the precuneus is associated with complex cognitive functions, including self-awareness, memory, consciousness, and emotional regulation. It integrates internal and

external information, guiding decisions aligned with universal values or the common good. The precuneus is most active during periods of rest, suggesting that mental rest enhances awareness of one's true self. This aligns with cultural and religious practices such as meditation and prayer–often now referred to as mindfulness–which engage the precuneus and support cognitive and emotional regulation.

Damasio and Meyer's (2009) theory proposes that medial parietal regions, including the precuneus, form a sense of independence from cultural influences. Reflecting on the role of the precuneus invites us to consider how often we rest our minds to stimulate our life compass and whether we focus on life-giving emotions and actions or what divides us. This also applies to our past, questioning the balance between focusing on pain and trauma versus gratitude and joy. Human tendencies to dwell on negative experiences, an evolutionary survival trait, remain strong, as Harari (2014) suggests.

Ongoing research on the tridimensional (3D) visualisation model, the Play of Life, has shown that using small 3D figures physically or digitally in silence can bring clarity to one's emotions and behaviours (Raimundo, 2002). This approach activates mirror neurons, the precuneus, and other limbic circuits, reflecting the life a person is visualising and stimulating their life compass. The Play of Life also incorporates the Pillars of Life technique, practiced in quietness, focusing on life-giving, motivating experiences.

Looking at the insula: Our moral compass

"No one is born hating another person because of the colour of his skin, or his background, or his religion. People must learn to hate, and if they can learn to hate, they can be taught to love, for love comes more naturally to the human heart than its opposite" (*Long Walk to Freedom: The Autobiography of Nelson Mandela*, Nelson Mandela).

"He who fights with monsters should be careful not to become a monster in the process" (Friedrich Nietzsche, Beyond good and evil: Prelude to a philosophy of the future).

The insula, or insular cortex, is a small brain region located deep within the lateral sulcus, separating the frontal and temporal lobes. It plays a crucial role in empathy, emotional processing, interoception

(the sense of the body's internal state), and homeostasis. One essential function of the insula is processing disgust, a vital emotion that helps individuals avoid harmful substances and situations. Disgust extends beyond physical threats to encompass moral, emotional, and ideological dangers. It serves to protect individuals from perceived behavioural and ideological threats, safeguarding the narratives and dogmas that provide meaning to existence, pain, and suffering.

Herz's (2012) research shows that the brain areas activated by physical disgust are also triggered when individuals encounter morally objectionable situations, causing a similar nauseous feeling. This was evident in the controversy surrounding the 2024 Olympics Opening Ceremony, in which a depiction interpreted as resembling Da Vinci's Last Supper was labelled "disgusting" by Roger Gewolb, who feared such representations could "infect" Christianity. The insula's involvement in such reactions highlights its role in eliciting strong emotional responses to physical and moral violations.

The insula contains spindle cells, or von Economo neurons (Evrard et al., 2012), which are linked to social awareness, empathy, and rapid emotional responses. These cells develop around four months of age, explaining why young children, who lack fully developed spindle cells, do not experience disgust in the same way adults do. For instance, the author observed his son peacefully playing with another child from a different cultural background while tension existed between the adults. This supports the idea that disgust and moral judgments are learned rather than innate.

Spindle cells are also critical for forming attachment bonds within families and social groups, rapidly processing social and emotional information. Humans naturally seek relationships and belief systems that provide identity and belonging. The insula's role in maintaining these beliefs can lead to a protective response when they are challenged, often perceived as a threat to identity or community.

This response can manifest as a rigid moral compass, guiding behaviour according to personal, societal, or cultural beliefs. This protective reaction is rooted in a fear of contamination or challenges to identity, triggering feelings of disgust and anger, which are processed automatically, non-consciously, and non-verbally. The insula's connection to the amygdala generates these responses, often overriding the self-awareness guided by the precuneus, which aligns more closely with a universal moral compass. The tension between these

two–the protective, insula-driven response and the precuneus-guided moral sense–can create conflict when different cultures or beliefs interact.

A dilemma arises when deeply held beliefs clash with a universal moral compass, potentially leading to inhumane actions justified by ideology or religion, as seen in historical sacrifices or modern situations in which medical help is withheld for religious reasons. As society evolves towards a more integrated consciousness, combining scientific and traditional knowledge, this can provoke fear and disgust among those with traditional views, challenging established norms.

In conclusion, the insula is central to emotion, morality, and social interaction. Its role in disgust processing and attachment highlights the importance of understanding the neurobiological basis of these reactions. In an increasingly interconnected world, recognising the insula's influence on responses to differences is crucial for fostering empathy and understanding across diverse communities.

And so, what?

The previous theoretical discussion provided a foundation for understanding how our brains respond to differences, particularly through the insula and precuneus. While the text has focused primarily on theory, this section offers a brief practical application. Professionals in fields such as therapy, coaching, and human resources may already have considered how to apply these ideas. The following introduces a case study and practical tools to help address workplace differences, discrimination, and other relational challenges.

Recognising and understanding how emotions like disgust underpin relational tensions is critical for more effective diagnosis and intervention. Disgust, often triggered by perceived threats to one's values, family, culture, or ego, is an instinctive, automatic, and non-conscious reaction. It can quickly lead to anger, fear, and a desire to eliminate the perceived threat, either physically or socially, such as through 'cancelling,' potentially escalating into harmful behaviours. The neuro-response occurs within one-twentieth of a second, involving the brain's non-verbal systems, making it difficult to recognise and control. However, we can use a 'space' between the stimulus and response to choose the appropriate course of action.

A case study

A psychodrama session following the Cronulla riots in Sydney, Australia, in 2005 highlights the impact of emotional responses to racial and cultural tensions. The Cronulla riots were clashes sparked by tensions between white Australians and those of Middle Eastern descent, fuelled by racial and cultural prejudices. Alan, a white Australian man, harshly judged his sister Brie for engaging with someone from another culture, describing his role as a "self-righteous punisher." His reaction stemmed from a fear of familial dishonour and the belief that Brie's actions would tarnish family traditions, reflecting the racist views he had absorbed.

During the psychodrama, Alan shared how he had treated his sister with pride, surprised by the group's mixed response–half was critical of his behaviour. The session revealed deeper emotions, such as fear and powerlessness, masked by his initial disgust and anger. Although Alan thought he was protecting Brie, he realised his behaviour had hurt her. He intended to be a "loving protector" but through the dramatisation, he became aware of his "self-righteous punisher" role and became remorseful and grateful for the group's insight. This case highlights the gap between intention and behaviour and the importance of recognising the emotional roots of our reactions.

Primary and secondary emotions

A crucial aspect of emotional awareness is differentiating between primary and secondary emotions. Primary emotions are raw, instinctual responses tied to survival, such as fear, disgust, sadness, or anger. These emotions arise immediately in response to a perceived threat. Secondary emotions, however, are more complex and develop from primary emotions. They often involve cognitive interpretation–such as anger that stems from underlying fear or disgust.

For instance, in Alan's case, his primary emotion was disgust at the perceived threat to his family's honour. This disgust quickly morphed into secondary emotions like anger and moral outrage. Recognising the primary emotion allowed Alan to address the root cause of his reaction and avoid letting secondary emotions dominate, which would have led to more harmful behaviour. Alan learned to engage with Brie constructively by identifying these core feelings, which also allowed him to say sorry to Brie. Although Alan's

negative reactions towards Brie's friends didn't change significantly in follow-up sessions, he learned to respond more positively. He later shared that, after changing his behaviour, he began to accept Brie's friends and even attended a soccer game with them.

Practical tools for growth

To foster growth, it's essential to assess and categorise emotional responses. The "active roles" format, based on Moreno (1946) and Clayton's role theory (2005), is a practical method for naming roles. Active roles consist of an emotion and an action, behaviours into constructive, fragmenting, or ambivalent roles. Constructive roles, such as a Calm Problem Sharer, promote healthy relationships, while fragmenting roles, like an Angry Attacker, drain and harm. Ambivalent roles, such as a Resentful Helper, can confuse and exhaust, leading to burnout.

In Alan's situation, his initial reaction, to protect his sister, manifested as the fragmenting role of a "self-righteous punisher." By recognising his emotional state, Alan could have chosen a more constructive role, such as a "caring, calm enquirer," asking Brie about her friends without judgment. This role would have aligned more with the "loving protector" he aimed to be, allowing him to engage with Brie in a way that supported their relationship instead of causing harm.

Emotional awareness in therapy

A deeper understanding of primary and secondary emotions can significantly enhance therapeutic outcomes. Clients often become stuck in behavioural patterns because they focus on secondary emotions, such as anger, without addressing the primary emotions underneath, like disgust, fear, or sadness. Anger itself can function as both a primary and secondary emotion. Supporting clients in recognising and processing these core emotions opens new pathways for healing. This is particularly critical in trauma therapy, where clients may repeatedly recount their stories without confronting the raw emotions at the core of their distress–a subject worthy of further exploration.

Verbal therapies can sometimes confine individuals within their narratives, failing to address how these stories have become emotional

containers. Expressive therapies, such as psychodrama and The Play of Life, provide alternative avenues to engage with primary emotions. Techniques like soliloquy, role reversal, and mirroring enable clients to explore emotions in an embodied, non-verbal manner, bypassing cognitive defences that often obstruct emotional awareness. Allowing space for clients to experience silence and rest–whether through meditation or active meditation using The Play of Life model–helps them identify raw emotions and connect with the guidance of the precuneus. This approach fosters emotional insight and supports clients in reconnecting with their bodily sensations, acknowledging the profound connection between brain and body in emotional processing.

Research into the precuneus inspires us to listen to the softer, internal voice of our life compass, often described as the whisper of the soul. This inner guidance helps us grow into the individuals we are meant to be, enhances our capacity to navigate differences, and creates synergy with others who strive for a meaningful life. Such growth benefits individuals while contributing to more peaceful relationships and a more harmonious society.

Yes, there is hope if we take the first step.

I invite you to continue this conversation about deepening our understanding of the brain's role in managing differences and fostering empathy. Whether you are exploring these themes in therapy, coaching, or broader professional contexts, your insights and experiences can help refine these ideas, making them more accessible and practical. Let us work together to create more inclusive, empathetic environments that encourage genuine connection and understanding across differences.

For expanded references, notes on topics in this chapter, and an interactive blog with the author and other readers, go to https://activelearningint.com/Publications/Multiculturalism/

REFERENCES

Allport, G. W. (1954). *The nature of prejudice*. Addison-Wesley.

Cavanna, A. E. (2007). The precuneus and consciousness. *CNS Spectrums*, 12(7), 545-552. https://doi.org/10.1017/s1092852900021295

Cavanna, A. E., & Trimble, M. R. (2006). The precuneus: A review of its functional anatomy and behavioural correlates. *Brain*, 129(Pt 3), 564-583. https://doi.org/10.1093/brain/awl004

Clayton, M. (2005). Relationships and roles. In: P. Holmes, M. Karp & M. Watson (Eds.), *Psychodrama Since Moreno: Innovations in Theory and Practice* (pp. 86). Routledge.

Damasio, A., & Meyer, K. (2009). Consciousness: An overview of the phenomenon and of its possible neural basis. In: S. Laureys, O. Gosseries & G. Tononi (Eds.), *The neurology of consciousness: Cognitive neuroscience and neuropathology* (pp. 3-14). Elsevier.

Dawkins, R. (1976). *The selfish gene*. Oxford University Press.

Evrard, H. C., Forro, T., & Logothetis, N. K. (2012). Von Economo neurons in the anterior insula of the macaque monkey. *Neuron*, **74(**3), 482-489. https://doi.org/10.1016/j.neuron.2012.03.003

Frankl, V. E. (1963). *Man's search for meaning: Revised and updated*. WW.

Freton, M., Lemogne, C., Bergouignan, L., Delaveau, P., Lehéricy, S., & Fossati, P. (2014). The eye of the self: precuneus volume and visual perspective during autobiographical memory retrieval. *Brain Structure and Function*, 219(3), 959-968. https://doi.org/10.1007/s00429-013-0546-2

Friedman, E. H. (2013). *Friedman's fables*. Guilford Press.

Harari, Y. N. (2014). *Sapiens: A brief history of humankind*. Random House.

Herz, R. (2012). *That's disgusting: Unraveling the mysteries of repulsion*. W.W. Norton & Company.

Moreno, J. L. (1946). *Psychodrama* (Vol. 1). Beacon House.

Raimundo, C. A. (2002). The play of life-a biological view of its impact on behavioural change. *Australian and Aotearoa New Zealand Psychodrama Association Journal*, (11), 48-58. https://doi.org/10.3316/informit.608602461229617

Singer, T., Critchley, H. D., & Preuschoff, K. (2009). A common role of insula in feelings, empathy and uncertainty. *Trends in Cognitive Sciences*, *13*(8), 334-340. https://doi.org/10.1016/j.tics.2009.05.001

Weichselbaum, C., & Banks, K. (2021). Racism on the brain. *Frontiers in Psychology: Young Minds*.