TEACHING FOR SUCCESS

LINKING NEUROSCIENCE WITH EFFECTIVE CLASSROOM MANAGEMENT AND LEARNING ACHIEVEMENT

KAREN FERRY

Teaching children and young people is known to be one of the most rewarding of occupations, due partly to the satisfying pleasure a teacher feels when students participate enthusiastically in the learning process, and a classroom of eyes light up as new knowledge is grasped.

However, this is not always the case. Teachers are also driven to various levels of distress, irritation and disappointment as they deal with unmotivated and disruptive students. They struggle with students who show disrespect or respond to instruction and guidance with outbursts of anger or defiance. It is not uncommon to hear teachers declare that more time is spent controlling and disciplining students than there is time to teach curriculum concepts.

Many students, also, struggle with the school environment and find school loathsome, stating that they only attend class because it is compulsory. Truancy is on the rise for multiple and cumulative reasons. There is a common denominator of students feeling frustrated and uncared for (Australian Law Reform Commission, 2013) due to an atmosphere of distress and fear that pervades many school environments.

Success in the classroom requires more than knowing *what* works and *how* to implement strategies. When educators understand the neuroscience of *why* certain methods are successful, how the brain processes and remembers new information, along with the blocks and triggers that inhibit successful learning and enjoyment of the school experience, teachers can evaluate current methods and implement strategies to ensure all students are given the best of opportunities (Sousa, 2010). But the benefits are twofold. As the joy of learning and being at school is resuscitated, there is fulfilment, delight and satisfaction for the teacher.

In a rapidly expanding economic world where success and business proficiency require top performance and elevated accountability, the need to push and stretch employees, meet deadlines, and increase productivity is at the forefront of every staff meeting and business review. This same expectation of proficiency extends to educational facilities, with funding and expansion of services dependent on growth in student numbers, and with an educational "product" that boasts high academic results in order to equip students to survive in the business world. Teachers feel continually pressed into meeting another deadline, peaking student academic performance and providing extra-curricular activities to satisfy parental wishes and administrative demands.

Teaching methodology and best practice have been the subject of robust discussion for decades. We have moved from textbooks to computers, where the potential for knowledge is now limitless with the use of smartboards, smartphones, tablets and numerous online courses (Cook, 2014). The advance in technology has provided teachers with attractive and innovative audiovisual aids and teaching resources intended to make teaching more effective and to excite students to learn. However, recent studies reveal that it is not an increased availability of resources or revolutionised teaching aids that make learning successful (Schenck, 2011). Nor is it the bribes, rewards or incentives frequently

used to cajole students in an attempt to improve behaviour or school performance (Kohn, 1999). While there are no absolute formulas or ultimate solutions to the complexities confronting today's educators, increasingly fruitful research in the neurobiological sciences suggests that a student's success at school is determined by the interaction between the teacher and the student and the emotional safety the student experiences within the school environment (Caviness, 2001; Schenck, 2011).

Learning begins the moment a child is born, with young minds receptive and sensitive to absorbing myriad experiences of the world in which they are raised. Brain development begins with cell growth in the brain stem (the survival brain) and progresses to the limbic system (the emotional brain), followed by the outer cortical regions of the cerebrum, the area of perception and cognition (Damir, 2009). As environmental sensory information is received and processed, influential memory systems and behaviours are developed according to the fulfilment or the violation of four basic psychological needs: the need for a sense of belonging and attachment, the need for control, the need for pleasure as opposed to hostile or fearful situations, and the need for a healthy self-esteem (Grawe, 2007; Arden & Linford, 2009). The basic needs, as outlined by Epstein (1990), are not isolated needs but are intrinsically linked and influenced by one another in determining the emotional wellness of an individual (Grawe, 2007).

As a child develops, its senses filter every family experience, relaying messages to the brain to interpret how the experience is to be understood, with responding consequential behaviours (Howard, 2013). Children who enjoy family environments of nurture, care and safety develop secure attachments that positively affect their future relationships and foster a keenness to approach new challenges and situations (Grawe, 2007). Securely attached children move into the social school environment with relative ease and will have the emotional stability to manage classroom learning and playground issues with little or no difficulty (Howard, 2013). However, mistreated children—those whose safety has been compromised emotionally, physically or socially—experience continuous, uncontrollable incongruences, since negative feedback loops have been established from infancy, resulting in a fear of new experiences and excessive emotional reactions to relatively minor changes or unpleasant situations (Grawe, 2007).

Early childhood behaviours of approach or avoidance become particularly evident once a child reaches school and there are certain expectations regard-

ing social independence, appropriate behaviours and learning ability. Many learning centres expect students to be able to achieve at certain levels and meet certain criteria, thereby fitting into a particular grade or learning environment. However, Schenck (2011) reminds teachers that nothing is ever quite in sync, as students enter school already genetically wired and are emotionally influenced by the range of early life experiences they have been exposed to (Peckham, 2013; Tokuhama–Espinosa, 2011). With current research suggesting that the interdependence of cognition and emotion is responsible for guiding all learning and retention (Sousa, 2010), it is a concern that many children experience heightened states of stress within the family environment before they reach the school gate (Howard, 2013) and are then expected to sit, listen and learn.

Threatening environments (either real or perceived) compromise the feeling of safety and intensify negative emotions due to an overproduction of adrenalin and cortisol. Behavioural inhibition systems (BIS) are triggered and neural activity is impaired, resulting in the reinforcing of avoidance schemas geared towards surviving uncontrollable incongruences (Grawe, 2007; Rossouw, 2012a; Siegel & Bryson, 2012). The social environment of the school can either further distress or calm an anxious child, depending on teacher reactions and the safety the child feels within the classroom (Sousa, 2010). Unless the child's anxiousness is down-regulated, the brain will persist in protecting him or her from harm (Sousa, 2010). Distressing situations up-regulate a fear response; blood flow increases in the emotional centre of the brain, and there is reduced blood flow to the prefrontal cortex where problem solving and decision making occur (Grawe, 2007). The emotional centre of the brain (the limbic system) takes over, activating survival instincts of fight, flight or freeze. Resulting behaviours often prompt reactions from the teacher that are confusing to the child or felt to be unjust or inappropriate in response to the embarrassment, fear or shame being experienced (Cozolino, 2013; Howard, 2013; Siegel & Bryson, 2012).

While it is appropriate and necessary for negative behaviours to be addressed, a proactive teacher responds with compassion and offers emotional safety in a nonthreatening environment free of retaliatory anger, put-downs and humiliation. Teacher criticism, verbal abuse and alienation only add fuel to an already heightened emotional state and result in an escalation of anger and an intensity of negative behaviours from the child (Cozolino, 2013; Howard, 2013).

Children are not "hardwired" but need help to develop self-control and emotional regulation, and this is best achieved through role modelling, genuine forgiveness and unconditional care (Howard, 2013). Recent neuroimaging studies show the amygdala responds not only to danger or fear, but positive emotional influences and nonthreatening conditions also increase metabolic activity through the amygdala to the prefrontal cortex, allowing an opening of neural networks to assist in successful learning (Sousa, 2010). A warm, caring relationship between the student and teacher is central to motivation and positive learning (Schenck, 2011); but the positive relationship holds even higher significance. A supportive, nurturing mentor in a child's life can shift the trajectory of negative behavioural development and move it in a positive direction, despite the family violations a child may have experienced (Grawe, 2007; Howard, 2013; Tokuhama–Espinosa, 2011)

ATTACHMENT

We are born social creatures, and our brains require connections with other people to develop well-being and equilibrium (Siegel, 2006). The basic need for attachment is critical to all individuals. We thrive on a sense of belonging, personal significance, and the consciousness that we are genuinely cared for (Grawe, 2007). Secure attachments, or feeling part of a "tribal" community (Cozolino, 2013) is imperative to the well-being of students. Genuine teacher care provides an environment of security and trust, releasing oxytocin and opiates that prompt a down-regulation of negative emotions, thereby calming and relaxing a student, stimulating neuroplasticity and a readiness for learning (Baumeister & Leary, 1995; Grawe, 2007; Pawluk, 1998). It is in the connections students make with their teachers that behaviour and emotions are positively or negatively affected, either motivating students to learn, or causing an anxiousness that shrinks neural branching to the detriment of both the learning process and the retention of knowledge (Grawe, 2007; Tokuhama–Espinosa, 2011).

Positive relationships are formed when teachers loosen up their rigid rules, laugh with their students, and take proactive steps to become warm and supportive—speaking in affirming tones, demonstrating genuine care, showing an interest in their students' lives and giving empathy when students are struggling (Schenck, 2011). Many who teach or are

in administrative roles mistakenly take their position of responsibility and make it into a position of power. Teachers are entrusted with the responsibility of guiding and nurturing young lives, giving them a sense of personal significance (Pawluk, 1998), but in accordance with the fundamental principle of care: *primum non nocere*—the first thing [is] to do no harm. Harsh, unbending attitudes give a teacher a sense of power, often termed the locus of control (Schenck, 2011), but it is a misplaced power if it violates the basic needs of the students in their care.

PLEASURE

Learning and decision making are influenced by the state of our emotional well-being, resulting in a positive or negative effect on how and what we learn and retain (Tokuhama–Espinosa, 2011). Research has shown that it is the fun and enjoyable activities, those with variety and creativity, that motivate students to want to learn (Kohn, 1993). It is unfortunate that in our current education systems, many classroom practices raise negative emotions, diminishing the love of learning, by pandering to a culture that values performance and academic success at any cost (Morelan, 2002). We have become obsessed with accountability and standardised test scores; so much so that enthusiasm for creativity has waned in classrooms, and time-poor teachers are often adopting practices that are not always conducive to student well-being and learning enjoyment (Tokuhama–Espinosa, 2011).

When a classroom fails to be fun and strong negative emotions are experienced, learning is blocked and the retention of information is inhibited (Lopez & Alipoon, 2001). Learning occurs when students enjoy the classroom environment and feel positive towards their subjects and learning tasks, experiencing the pleasure of personal fulfilment in their own abilities (Grawe, 2007; Morelan, 2002).

CLASSROOM ACCEPTANCE

The feeling of acceptance and "being valued" is regarded as the most important of human motivations and is necessary for a healthy self-image (Grawe, 2007; Prochaska & Norcross, 2010). Positive self-esteem is directly related to environmental experiences and the human language interactions individuals have on a day-to-day basis (McNeil, 2009). It is the language we hear from others, and the silent, nonverbal cues associated with human interactions, body language and mirror neurons, that influence our thinking and form our individual beliefs (Schore & Schore, 2007). What a student believes a parent or teacher thinks about him or her greatly impacts personal motivation, efficiency and general well-being (Tokuhama–Espinosa, 2011).

Parents and teachers who show acceptance of a child only on condition, using power to control be-

haviours, giving bribes or rewards when marks are satisfactory or when a child performs to a set standard, lead the child to believe that his or her worth is dependent only on doing the "right" thing (Grawe, 2007; Kohn, 1999). These children develop a self-esteem based on conditional approval and instinctively attempt to always please others (Prochaska & Norcross, 2010). Other children simply live up to the language they have experienced and become "bad" kids, actively striving to maintain or verify their negative self-image in an attempt to protect their self-esteem (Grawe, 2007). It is common for a child to become stuck in a self-fulfilling prophecy of negative behaviours, due to a negatively developed self-confidence and low self-efficacy (Grawe, 2007). These children present in the classroom as the ones who are continually in trouble, the ones that teachers find it difficult to attach to, and the ones who receive the brunt of criticism and punishing reactions (Grawe, 2007). Unfortunately, it is the "unattractive" students, the ones we find most difficult to love, who are the very ones who need a teacher's care and attention. They need affirming language and caring attitudes so as to change their negative view of themselves and begin to form neural pathways of acceptance of themselves and others (Grawe, 2007). Teachers who understand children's poor behaviour as stemming from the violations and inappropriate emotional nurturing they have received can be proactive and put in place strategies to care for and value these students rather than perpetuate the unfavourable experiences they continually live with (Arden & Linford, 2009; Grawe, 2007). A teacher's encouragement of student effort, no matter how small the progress, builds positive mental images that prompt the release of dopamine and serotonin, leading to intrinsic motivation: the desire to learn more, do better, experiment and try new ideas—all of which assist in long-term learning and subsequent retrieval (Grawe, 2007; Schenck, 2011).

CHOICE EMPOWERS

While learning content is often not negotiable, *how* a student learns can and should be. Taking time to understand individual students' strengths and weaknesses maximises their learning potential, as the teacher can potentially provide a choice of opportunities for each child to experience success (Schenck, 2011). This does not necessarily mean a separate activity for each child. Teachers are stressed, time-poor and constrained by a regime of standardised tests and prescribed curriculums (Morelan, 2002);

to cater to the myriad of individual needs seems impossible. Choice involves a teacher relinquishing some control and providing the students with more autonomy in their learning (Schenck, 2011). Establishing classroom environments free of rigidity, presenting problems that are open-ended, encouraging students to explore, experiment and try new ideas, adopting activity-based learning where the students can move throughout the classroom, and providing safe and caring support when mistakes are made all foster accountability and shift the responsibility for ownership of learning to the student (Baldoni, 2005; Maulana, Opdenakker, den Brok, & Bosker, 2011).

Schenk (2011) describes choice as "creating a thirst" (pp. 145–146), a motivating power within students, which is dependent on student expectations and the anticipated benefits of success (Porter, 2007). When a student is motivated, neurons and synaptic connections are stimulated, causing rapid-fire activation that results in a thickening of the dendritic branches. This in turn reinforces learning and enables information to be retrieved at a later time (Lopez & Alipoon, 2001; Arden & Linford, 2009).

However, there is an understandable fear among teachers that introducing creative activities and options will increase workloads and result in a loss of classroom control (Anonymous, 1996). It has been argued that creative teaching activities that provide choice and individual expression are most relevant for primary school-aged children; it is expected that students entering high school know the importance of learning and should have the maturity to embrace it. Unfortunately, both rational thought and cognition of responsible behaviours develop around the age of 24 (Sousa, 2010). Young people tend to live for the moment, with limited cognitive ability to determine how important their education will be in the future but a strong desire for acceptance and personal power over their lives (Geldard & Geldard, 2010). Teachers who understand that students don't respond well to authoritarian control minimise frustrations and the number of behavioural issues they encounter (Schenck, 2011). While firm boundaries and routines are necessary and should be maintained, evidence has shown that student motivation is heightened when teachers work alongside students, encouraging and supporting, rather than in a directive, authoritarian role, implementing punishments and rewards to enforce compliance (Cook, 2014; Kohn, 1993).

Learning that takes place under stress results in performance based only on fear (Rossouw & Henson, 2013). The heightened anxiety a student feels

when they fail, suffer ridicule (real or perceived), or find themselves in a fearful situation causes a cascade of stress hormones to flow through the limbic system. Blood flow drains from the logic and reasoning centres of the brain resulting in a fight or flight reaction, which often plays out in negative behavioural tendencies (Kohn, 1993; Siegel & Bryson, 2012). The anterior cingulate cortex (ACC), often known as the "conflict monitor", plays a crucial role in an individual's engagement with the environment and the conscious experiencing of emotions (Grawe, 2007). High levels of stress deactivate the ACC, causing an up-regulation of fear and anxiety that results in irrational and illogical thinking (Grawe, 2007); if the negative environment persists, a child's responsiveness will shut down, resulting in students passively withdrawing and not engaging in class, and/or displaying behaviours such as seemingly not caring or not having the energy or willpower to attempt to change (Dutton, 2007).

However, there is no denying that some students do not respond to care, creativity or kindness towards them. They annoy, disrupt and make a teacher's life miserable in their quest to undermine any attempts at successful teaching and the learning of others. Frequently teachers have shown support, but they have felt the brunt of cruel attacks. Cozolino (2013) suggests kind acts from teachers can trigger emotional sadness in neglected students and that they attempt to punish them for the parents they never had (Howard, 2013).

When aggression and serious relational difficulties disrupt the classroom, violating the safety of others, teacher attitudes can determine whether negative behaviours escalate and spiral out of control or settle into a state where the student is ready to listen and use the incident as a learning platform (Siegel & Hartzell, 2004). As emotional energy rises and abuse is hurled, it is a normative reaction for a teacher to raise his or her voice, yell back and make demanding statements. Unfortunately, this approach escalates the fear and negative behaviour to a higher level as both the student and the teacher fight to maintain control (Cozolino, 2013).

Calming the limbic system and regulating the amygdala's fight-or-flight response is an essential first step in regaining control. It is not "giving in" to a student's wishes, but rather it offers emotional safety, empathetic support, and an understanding approach so as to facilitate new neural communications (Rossouw, 2012b). It is tempting to berate, to demand respect, to insist the child apologise or simply to eject a student from the classroom. However, when a student feels his or her basic needs of control, pleasure, attachment and self-esteem are being threatened, he or she will respond and react negatively and illogically, because the immature child brain is unable to think beyond the emotional pain being experienced (Siegel & Bryson, 2012).

Adults can experience similar reactions when their work environment lacks democratic input, if there is social and emotional disconnection in the staffroom, or if the culture they work in fails to be supportive of their basic needs (Cozolino, 2013). Emotional safety is essential for everyone and directly impacts an individual's wellness and performance (Weinberg, 2013). Wise classroom teachers and exemplary schools grasp the importance of developing a community where students feel safe by providing genuine support for every individual, with-

out bias or prejudice, recognising that the value of care given to students surpasses any high academic achievement or economic advantage.

CONCLUSION

Recent findings in neuroscience have significant implications for the future of both classroom teaching and school management as a whole, with informed educators adopting brain-based approaches to ensure students experience physical and emotional safety in the context of positive and supportive teacher–student relationships (Williams, 2012). While genetic makeup and early environmental experiences have a significant influence on development (Peckham, 2013), it is understanding the brain's plasticity—the student's ability to develop positive neural change and their potential for growth—which can and should motivate teachers to teach with the highest expectations of learning for every student, irrespective of prior experiences, since there is no limit to the adjustments the brain can make (Doidge, 2010; Tokuhama–Espinosa, 2011). Adopting strategies to down-regulate classroom stress and provide protection against humiliation, fear, or damage to self-esteem is essential for truly effective change and for learning to be beneficial for all students (Tokuhama–Espinosa, 2011). These are the conditions under which learning will prosper; which can alter a child's brain and influence the future trajectory of every student.

Karen Ferry has been a teacher for over 30 years in both primary and secondary classrooms, and has worked extensively for distance education students assisting in the development of curriculum and activity-based programs. She is a Master of Counselling candidate at the University of Queensland.

REFERENCES

Australian Law Reform Commission. (2013). *Children in Education: Truancy* (ALRC Report No. 84–10.49). Retrieved from http://www.alrc.gov.au/publications/10-children-education/truancy

Anonymous. (1996). Moving forward on brain-based learning. *Vocational Education Journal*, *71*, 21.

Arden, J. B., & Linford, L. (2009). *Brain-based therapy with children and adolescents: Evidence-based treatment for everyday practice*. Hoboken, NJ: John Wiley & Sons.

Baldoni, J. (2005). Effective leadership communications. In *The results-driven manager* series: *Getting people on board* (pp. 103–114). Boston, MA: Harvard Business School Press.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529. doi:10.1037/0033-2909.117.3.497

Caviness, L. B. (2001). *Educational brain research as compared with E. G. White's counsels to educators* (Unpublished dissertation). Andrews University, Michigan.

Cook, P. (2014, December 1). *This Will Revolutionize Education* [YouTube video]. Retrieved from https://www.youtube.com/watch?v=GEmuEWjHr5c&feature=youtube_gdata_player

Cozolino, L. (2013). *The social neuroscience of education: Optimizing attachment and learning in the classroom*. New York, NY: W. W. Norton.

Damir, J. (Ed.). (2009). *Mammalian brain development*. New York, NY: Humana Press.

Doidge, N. (2010). *The brain that changes itself: Stories of personal triumph from the frontiers of brain science* (Rev. ed.). Melbourne, Australia: Scribe.

Dutton, D. G. (2007). *Violence and control in intimate relationships* (2nd ed.). New York, NY: Guilford Press.

Epstein, S. (1990). Cognitive-experiential self-theory. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 165–192). New York, NY: Guilford Press.

Geldard, K., & Geldard, D. (2010). *Counselling adolescents: The proactive approach for young people* (3rd ed.). Los Angeles, CA: Sage.

Grawe, K. (2007). *Neuropsychotherapy: How the neurosciences inform effective psychotherapy*. Mahwah, NJ: Lawrence Erlbaum Associates.

Howard, J. A. (2013). *Distressed or deliberately defiant: Managing challenging student behaviour due to trauma and disorganised attachment*. Toowong, Australia: Australian Academic Press.

Kohn, A. (1993). Choices for children: Why and how to let students decide. *The Phi Delta Kappan*, *75*, 8–16, 18–21.

Kohn, A. (1999). *Punished by rewards: The trouble with gold stars incentive plans, A's, praise, and other bribes* (2nd ed.). Boston, MA: Mariner Books.

Lopez, D., & Alipoon, L. (2001). Experience is the network to mind: Brain-based learning applications in higher education. *Journal of Adventist Education*, *63*, 29–34.

Maulana, R., Opdenakker, M.-C., den Brok, P., & Bosker, R. (2011). Teacher–student interpersonal relationships in Indonesia: Profiles and importance to student motivation. *Asia Pacific Journal of Education, 31*, 33–49.

McNeil, F. (2009). *Learning with the brain in mind*. London, England: Sage.

Morelan, B. (2002). The fun factor: How active enjoyment impacts learning. *Journal of Adventist Education, 64*, 37–40. Retrieved from http://circle.adventist.org/files/jae/en/jae200164023704.pdf

Pawluk, S. (1998). Layers of significance: Influencing students' moral default settings. *Journal of Adventist Education, 61*, 24–27. Retrieved from http://circle.adventist.org/files/jae/en/jae199861012404.pdf

Peckham, H. (2013). Epigenetics: The dogma-defying discovery that genes learn from experience. *International Journal of Neuropsychotherapy, 1*, 9–20. doi:10.12744/ijnpt.2013.0009-0020

Porter, L. (2007). *Student behaviour: Theory and practice for teachers* (3rd ed.). Crows Nest, Australia: Allen & Unwin.

Prochaska, J. O., & Norcross, J. C. (2010). *Systems of psychotherapy: A transtheoretical analysis* (7th ed.). Belmont, CA: Brooks/Cole.

Riggs, L. (2013, October 18). Why do teachers quit? And why do they stay? *The Atlantic*. Retrieved from http://www.theatlantic.com/education/archive/2013/10/Why-Do-Teachers-Quit/280699/

Rossouw, P. J. (2012a). *Bullying: A neurobiological perspective* [Monograph]. Retrieved from http://www.neuropsychotherapist.com/bullying-rossouw/

Rossouw, P. J. (2012b, January). Effective client focused interventions: The top-down and bottom-up discourse. *Neuropsychotherapy News, 11*, 2–4. Retrieved from http://mediros.com.au/wp-content/uploads/2012/11/NPTIG-Newsletter-11.pdf

Rossouw, P. J. (2013, April 30). Introduction to neuropsychotherapy. *Theories of Counselling*. Lecture conducted from the University of Queensland, Brisbane, Australia.

Schenck, J. (2011). *Teaching and the adolescent brain*. New York, NY: W.W. Norton.

Schore, J. R., & Schore, A. N. (2007). Modern attachment theory: The central role of affect regulation in development and treatment. *Clinical Social Work Journal, 11*, 9–20. doi:10.1007/s10615-007-0111-7

Siegel, D. J. (2006). An interpersonal neurobiology approach to psychotherapy. *Psychiatric Annals, 36*, 248–256.

Siegel, D., & Hartzell, M. (2004). *Parenting from the inside out: How a deeper self-understanding can help you raise children who thrive.* New York, NY: J. P. Tarcher/Penguin.

Siegel, D., & Bryson, T. P. (2012). *The whole-brain child: 12 revolutionary strategies to nurture your child's developing mind.* New York, NY: Scribe.

Sousa, D. A. (Ed.). (2010). Mind, brain, and education: Neuroscience implications for the classroom, *Leading Edge Series: Vol. 6.* Bloomington, IN: Solution Tree Press.

Tokuhama–Espinosa, T. (2011). *Mind, brain, and education science: A comprehensive guide to the new brain-based teaching*. New York, NY: W.W. Norton.

Weinberg, I. (2013). Accessing the chemistry of consciousness and emotion. *New Therapist, 84*. Retrieved from http://www.newtherapist.com/back82to84.html

Williams, K. C. (2012). *Essentials for principals creating physical & emotional security in schools* (2nd ed.). Bloomington, IN: Solution Tree Press.

Neuropsychotherapy:
Theoretical Underpinnings and Clinical Applications

Edited by Dr. Pieter Rossouw and featuring case studies by
## 18 contributing clinicians from across Australia

In this book Pieter Rossouw and his colleagues have made a wonderful and exciting contribution to the world of psychology, psychotherapy and counselling by bringing into practical reality the importance of an integrative approach to the psychosocial care of others.

The book presents a ground-breaking, new integrated model of neuropsychotherapy, based on years of research, clinical practice and teaching in the neuropsychotherapy field. Dr. Rossouw's integrated model of neuropsychotherapy develops and enhances the theoretical work of Seymour Epstein and Klaus Grawe and recognises that safety in the therapeutic alliance is a core component and guiding tenet of a neuropsychotherapeutic approach. Through the principles of neuroscience the book takes us on a challenging, yet exciting journey exploring the application of brain-based therapies.

Section A of the book (chapters 1, 2 and 3) reviews the development through history of how neuroscience has informed schools of psychology and therapeutic approaches, and critiques existing theoretical constructs. Section B (the remaining 17 chapters) offers a series of case studies, written by practising clinicians from across Australia, in varying clinical settings and the application of a neuropsychotherapeutic approach and principles for a wide range of psychopathologies.

This book is the culmination of a significant interest in and passion for engaging with people suffering from a range of mental challenges. It is also the result of a passion for understanding the human brain and how our genetic footprint is expressed through engaging with the environment. It is this interaction that leads to genetic expression and (in safe, enriched environments) leads to healthy neural development and the capacity not only to survive the challenges of life but also to thrive. When survival is compromised, changes in the brain occur. These changes express on a neurochemical and neuro-structural level and alter neural networks and can lead to the onset of psychopathology.

This book challenges our science, our art and perhaps most importantly of all, our humanity. For years in the real world clinicians have known the value of an holistic, integrative approach but often only whispered words like "eclectic" and "holistic" and "integrative" in describing their practice for fear of being ridiculed for lacking a purist psychological doctrine.
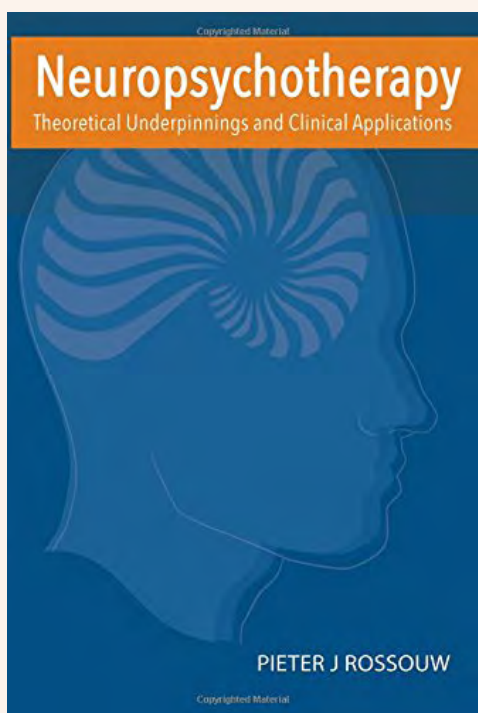
This book offers real validation to the care that people had known to always work and Dr. Rossouw gives strength, confidence and structure to such practice. The view of human distress as a disease to be treated by "experts" is placed aside in recognising the power of human beings and their minds to heal and grow and change within a place of safety, to be found in the sanctuary of the therapeutic setting.

Dr. Rossouw is constantly mindful of so many people that suffer on a daily basis with various presentations of mental distress. This book is ultimately for every one of them. Dr. Rossouw's hope is that this volume will open some new insights and pathways for clinicians to engage with their clients in such a way that the theoretical underpinnings and clinical applications of neuropsychotherapy will open new perspectives and facilitate new neural pathways to thrive and enhance quality of life.

Neuropsychotherapy: Theoretical Underpinnings and Clinical Applications is now available at amazon.com