THE POWER OF NEUROPLASTICITY FOR PASTORAL AND SPIRITUAL CARE

Kirk Bingaman
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In *The Power of Neuroplasticity for Pastoral and Spiritual Care*, Kirk Bingaman joins an ever increasing conversation between pastoral theology and neuroscience exploring the principle of plasticity and its ability to counteract the predisposition of negativity ingrained in the human brain through the use of mindfulness based contemplative prayer and meditation. Framed by a correlational method in the light of the work of Paul Tillich and David Tracy, Bingaman brings together pastoral theological and neuroscientific resources to enrich and deepen our theological anthropology and discern how the skills of intentional and focused mindful awareness induce change in the brain in life giving ways. In so doing, Bingaman offers a “contemplative-neuroscientific approach” to pastoral and spiritual care and counseling and argues that daily practices of contemplative prayer and meditation have the capacity to rewire the neural pathways to reduce anxiety, fear, and the negative stress response and increase one’s ability to live into the peace and joy of God’s presence (p. 4). In short, Bingaman offers a self-directed, tangible way for persons to use “the mind to change the brain” (Siegel, 2010) and become less anxious about tomorrow.

Within the vast scope of neuroscience, Bingaman wisely narrows his focus to two main aspects with the neuroscientific literature: (1) neuroplasticity and (2) the negativity bias of the brain in proposing a “contemplative-neuroscientific” approach to pastoral and spiritual care and counseling. The first, neuroplasticity, is, in my opinion, one of the most exciting aspects of the fruitful conversation between pastoral theology and neuroscience. Neuroplasticity is the term used to describe the brain’s life-long, dynamic capacity for growth and change. In other words, the brain has the capacity to create and/or modify neural firing and wiring patterns and pathways (neurocircuitry), thus changing its very structure and function (Ratey, 2001, 2008; Siegel, 2010; Newberg, 2010). The plastic processes are ongoing every second of every day. Every thought, experience, action, and emotion induces structural and functional changes in the brain (Ratey, 2001).

The second important element to consider is the “negativity bias” of the brain, or the deeply engrained predisposition of the brain to be on high alert
and thus anxious and fearful about life and human relationships (p. 1). Bingaman illustrates how, through the millennia of human evolution, the once helpful fight-flight-freeze response of the brain has become less than helpful in our current cultural milieu as external awareness has turned self-critically inward. No longer is there a literal life-or-death threat around every corner, but our brain (particularly the amygdala in the limbic region) continues to function as if there is a constant threat. The continuous flood of neurochemicals in this hyper-vigilant state becomes toxic if not regulated. Of course, there are times when hyper-vigilance is warranted and lifesaving (e.g. domestic violence, sexual abuse, assault, and so on); however, Bingaman illustrates that for the most part, this hyper-vigilance is unwarranted and produces a negatively skewed ongoing perception of self and the world (Siegel, 2010). Left unchecked, the negativity bias and hyper-vigilant alarm system make it nearly impossible to avoid being anxious about tomorrow.

Bingaman locates his work within the long-standing tension between religion and science, using Ian Barbour’s four-fold typology of engaging the disciplines together: (1) conflict, hostility between the two disciplines; (2) independence, each discipline keeping its distance from the other; (3) dialogue, meaningful conversation, but little paradigmatic change; and (4) integration, collaborative, bi-directional, and reciprocal learning from one another (1997). Bingaman rightly points towards the latter two – particularly integration – as the most fruitful form of correlation. However, Bingaman’s method can be pushed a step further in light of feminist theory, critical theory, and the increasing awareness of issues of particularity in the postmodern milieu. For instance, Carrie Doehring identifies three “subtypes” of critical correlation, drawing on Miller and Poling (1985) and Chopp (1995) in her chapter on a feminist methodology for pastoral theology: hermeneutical, emancipatory praxis, and a hybrid of the two (Doehring, 1999). In his correlation, Bingaman offers a helpful caution to the dominant theological norm of original sin or “inherent wrongfulness” and psychologies which focus exclusively on pathology, and notes how this may reinforce the brain’s negativity bias and become an impediment for fully experiencing the joy of abundant life (p. 45). Thus, there is an element of the emancipatory praxis model; yet, Bingaman’s correlation could be further clarified.

Bingaman brings together research on mindfulness based forms of psychotherapy (MBCT, Mindfulness Based Cognitive Therapy and ACT, Acceptance and Commitment Therapy) and cognitive neuroscience to illustrate how contemplative and meditational practices can be helpful in counteracting the negativity bias of the brain. One of the most profound ways of overcoming
the negativity bias is to focus one’s awareness and attention intentionally in daily contemplative meditational practices, thus inducing neuroplasticity in life-giving ways (Newberg, 2010). In mindfulness, one must develop the capacity for self-reflexivity and learn to pay attention on purpose to the totality of experience non-judgmentally (Kabat Zinn, 1994). In so doing, one develops the ability to take a “sacred pause” or moment wherein one may step back and reflect on the present experience and then choose how to respond to any given situation or stimuli (Brach, 2003). Over time one creates greater capacity and resiliency to embrace all of experience in a curious, open, accepting, and loving way (Siegel, 2010).

Overall, Bingaman’s work is quite helpful in illustrating how a mindfulness based, contemplative approach to therapy – and to life – has the potential to rewire the brain in powerful ways. He reminds us of the constructive and potentially damaging impact our operative theologies and psychologies may have on our clients and ourselves; thus, we must always critically reflect on our guiding norms and assumptions. However, while there is an element of emancipatory praxis, Bingaman’s approach does not stress social location or context, nor does he explore how this may or may not impact the brain. For instance, in the literature on mirror neurons – how the brain recreates and “mirrors” the experiences of others in oneself – there is evidence of neurologically based prejudice (Mathur et al., 2010; Hogue, 2010). Our brains have an easier time attuning with persons who are similar to us, and they are more challenged by those who are different. David Hogue (2010) has illustrated how this impacts our capacity for empathy. Consequently, while Bingaman’s work is particularly helpful in terms of intra-relationality – our relationship with ourselves – the connection with inter-personal relationality could be strengthened.

Additionally, the approach to neuroplasticity is highly “top-down” and skull-encased. The higher capacities of the prefrontal cortex are certainly vital in neuroplasticity; yet, top-down processing is not the only way to induce neuroplasticity in life-giving ways. According to the research on neuromotor training and learning, movement and physical activity – particularly rigorous aerobic exercise – has the capacity to recreate the amygdala-hippocampus process in a controlled environment and thus “recode” and automatize the experience in positive terms and further induce neuroplasticity and neurogenesis through endorphins, inhibitors (gamma aminobutyric acid and glutamate), regulators (dopamine, norepinephrine, and serotonin), and growth factors (proteins and neurotrophins) (LeDoux, 2002; Howard, 2006; Evans & Burghardt, 2008; Ratey, 2008). This “bottom-up” approach extends the brain into the entire body and emphasizes embodied knowing and wisdom as vital parts of one’s spirituality.
and spiritual experience.

Overall *The Power of Neuroplasticity for Pastoral and Spiritual Care* offers an insightful, practical, and potentially paradigm shifting understanding of how we might move closer to living abundantly in God’s presence as well as how we might incorporate mindfulness based resources in our theories and practices of pastoral and spiritual care and counseling. As Bingaman reminds us, we are just beginning to scratch the surface of this new frontier (the human brain), and the potential implications for our theologies, psychologies, and practices of caregiving are immense.

References


