REA Annual Meeting; November 4-6, 2011; Toronto

Spiritualizing Mind: *A Brain-based Approach to Formation*

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Abstract

This paper focuses on how neuroscience can help to inform spiritual formation programs. Beginning with an introduction to brain anatomy, this paper will lay the groundwork for understanding the three systems or meta-regions of the brain: the brainstem and cerebellum; the limbic system; and the neo-cortex. With this framework in place, we will then explore five general kinds of approaches that are found in spiritual formation and how these can form the three meta-regions. Overall, this paper will provide religious educators with a neuroscience foundation that can inform and guide their work.

Introduction

This paper explores the possible contributions that the field of neuroscience can make for the field of spiritual formation. Beginning with a brief overview of neurophysiology, three meta-regions and the behavioral functions that have come to be associated with them will be described. The second section will then explore historical and contemporary spiritual formation texts that discuss the kinds of general approaches that are used in this field. For each of these approaches, some intentional reflections will then be given as to how each one possibly influences the growth and development of the biological brain as discussed in the first section. This paper will then close with a brief reflection on the use of these neuroscience perspectives in light of alternative heuristics that are more commonly used in religious education. Overall, this paper will seek to help religious educators to gain an introductory understanding of brain anatomy as well as to how we might begin applying these insights to our spiritually forming craft. It should be noted that this particular paper focuses on the individual level, while the field of spiritual formation is much more broadly conceived of by this author.[1]

The Three-Pound Universe: Neural Anatomy 101

In this section, a brief overview of neural anatomy and brain transformation will be provided. More specifically, I will discuss the basic building blocks of the brain, three meta-regions, and how biological change is understood to occur in the human brain. This section is therefore intended to provide religious educators with a very basic understanding of neurophysiology.

Some of the key fundamental building blocks of the brain are: neurons, axons and dendrites, and glial cells.[2] Neurons are the primary cells in the brain "that sense changes in the environment" and communicate these changes to other neurons via the axons and dendrites that connect neurons with one another. Glial cells, which are still largely a mystery to neuroscientists,[3] essentially play a supportive role to the neurons.[4] From these basic building blocks, the larger neural networks and architecture of the brain is developed.

With there being more than 100 billion neurons and each of these being about twice as small as an average cell in the body,[5] the brain's architecture is extremely complex, having many different possible states of activation. In fact, neuro-psychiatrist Daniel Siegel writes, "This number [of possible states of activation] is thought to be larger than the number of atoms in the known universe."[6] That is a lot considering that the average adult brain weighs only about three pounds![7]

Three Brain Systems and Their Basic Functions

Within this very complex biological structure, certain areas of brain activation have been observed to coincide with certain forms of behavior, functioning, and internal experience.[8] Overall, some authors assert that there are three major systems, or meta-regions, of the brain to which many of these functions can be mapped: the brainstem and cerebellum; the limbic system; and the cortex.[9] As a part of these three systems, the brain is – as is commonly known – also noted to have left and right hemispheres, each of which has their own specialized functions.[10]

Beginning with the brainstem and cerebellum, known as the "reptilian brain,"[11] this system is commonly associated with stimulus-response actions. It is responsible for such functions as movement control, breath and body temperature regulation, as well as controlling our wakefulness and sleeping.[12] It is also responsible for balance and coordination in addition to storing, in the words of neuroscience author Joe Dispenza, "learned, coordinated, [and] memorized" action-response behaviors.[13] These include, Dispenza asserts, such stimulus-response actions as "attitudes, emotional reactions, repeated actions, habits, conditioned behaviors, unconscious reflexes, and skills that we have mastered."[14] Finally, this system is asserted to also control basic motivational mechanisms such as our drives for "food, shelter, reproduction, and safety."[15] This first system is therefore primarily composed of stimulus-response mechanisms.

Alternatively, the limbic system is noted to be the affective and emotional center of the brain and is sometimes called the "old mammalian brain."[16] This region works very closely with the first system and therefore helps in the regulation of many of the functions listed above. It also, however, works to generate the emotions that we feel.[17] It is therefore central for the formation of relationships. As Siegel writes, "The limbic area is also crucial of how we form relationships and become emotionally attached to one another."[18] This part of the brain is therefore primarily associated with our emotional and relational functioning, in addition to the body regulations and mechanisms of the brain stem and cerebellum.

Finally, the cortex system is generally understood as those regions of the brain that wrap or fold around the top and outer portions of the brain.[19] We can think of it as a "thinking cap" as this system includes many of the cognitive functions that humans have such as developing ideas and concepts as well as the ability to consciously construct and process mental representations of such abstracts as time, self, and morality.[20] This system, which is highly interconnected with the two discussed above, is also implicated in many other functions as well, such as memories, feelings, response flexibility, fear modulation, empathy, insight, moral awareness, pattern recognition, and intuition to name a few.[21] It is,

therefore, the most complex and dynamic of the three systems and is sometimes seen as being what distinguishes humans from many other animal species.[22] This system, which is also involved in the functioning of the other two systems, is therefore often associated with the more complex cognitive and affective abilities.

These three systems are therefore presented in this paper as a very basic and introductory overview of neural anatomy for the field of spiritual formation. The stimulus-response mechanisms, emotional and relational functioning, and the complex cognitive and affective dynamics that these systems are involved in are all a central part of the work of formation in religious education. Before we proceed to discussions of how these understandings can inform our craft, however, we will first briefly explore how the brain changes from a biological perspective.

Knitting Neurons: The Neuroscience of Change

It has been noted that the development of the human brain occurs in spurts and continues across the lifespan.[23] It has also been observed that brain development occurs in a cyclical fashion with parts of the frontal cortex maturing only later in life after a prolonged period of time.[24] Such development is also related to the well-documented "plasticity" of the brain.[25] At the level of the most basic building blocks, neuroplasticity is asserted to proceed in accordance with the often cited "Hebbian Principle" which asserts, "neurons that fire together, wire together."[26] In essence, this means that under the right conditions connections between different parts of the brain can be strengthened and/or modified by repeated use, or neuron firing.[27] Such conditions include, but are not limited to: experiencing different external stimuli, emotional arousal, repetition of actions, internal reflections and mental rehearsals, and focused attention.[28] From the perspective of spiritual formation, as we shall next see, knowing this is important because it can help us to better understand how the general approaches we use can reshape each of the three systems discussed above.

Spiritualizing Minds

In my overview of some of the literature in spiritual formation, I find there to be at least five different kinds of approaches that are related to the intentional formation of the individual: 1) Knowledge; 2) Reflection; 3) Action; 4) Stillness; and 5) Environment. Articulated from a theistic perspective, each of these represents avenues that God works through in our religious education programs to shape the individuals that we are working with. Figure 1 below shows these five general approaches and their relationship to the individual. This section will therefore provide a brief overview of each of these five general approaches and their possible implications for the formation of the biological brain based upon the discussions above.

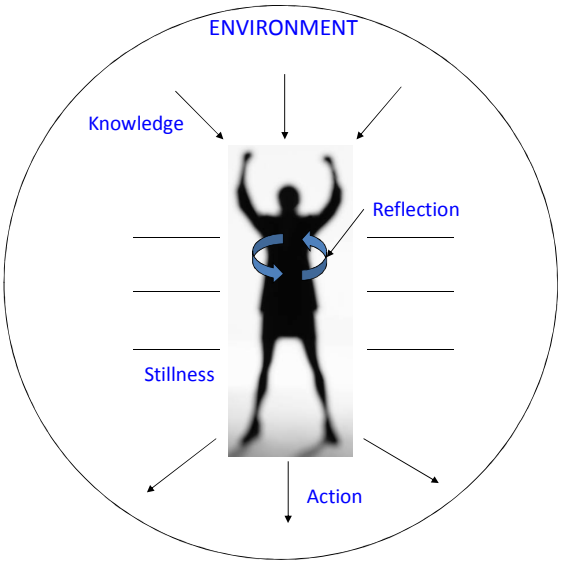

Figure 1. Five General Approaches in Spiritual Formation.

Knowledge

The first broad category are approaches that foster the acquisition of knowledge. These approaches, as we can see in the diagram, are primarily oriented towards introducing information and insights into an individual's life from outside. A primary emphasis in the Christian tradition is given to the role of Scripture as being one such source.[29] It is intended to transform the person's life through regularly attending to its insights and teachings.[30] In addition to this, the acquisition of knowledge more generally is considered to be a staple of a growing disciple.[31] "Knowledge, or learning," Erasmus of Rotterdam teaches us, "fortifies the mind with salutary precepts and keeps virtue ever before us."[32] Such learning is ultimately intended to educate and invite each person into an ever deepening relationship with God as well as to empower them to more fully live out their spiritual lives.[33]

As it relates to the impact that these encounters with new knowledge may have on the brain from a neuroscientist's perspective, the effects are numerous and seen as being beneficial to reshaping the brain.[34] Education, particularly when it requires intentional and focused attention, can foster the kinds of mindfulness that helps to shape a more well-balanced and integrated mind.[35] Such knowledge can and should lead to new and different choices that then reshape our behavioral mechanisms and emotional responses.[36] The use of narrative education and imagination, for example, where we picture ourselves in alternate scenarios or making different choices, can also profoundly affect neural networks and their functioning.[37] From a brain-perspective, then, new knowledge has the potential to transform all three brain systems discussed above.

Reflection

A second set of general approaches are those associated with intentional reflection. As one comes to gain greater knowledge and insights, there needs to be some intentional effort to further internalize and absorb this new information, values, et cetera into one's life.[38] Journaling is one specific example of such a reflective practice.[39] Such practices can

deepen self-knowledge, which is considered to be a cornerstone of spiritual growth, and strengthen one's identity.[40] "We all travel through life experiencing events and circumstances that shape us," spiritual formation author Bill Hull writes, "How we interpret them determines how God forms and transforms our inner person."[41] Such transformations and interpretations, in these approaches, often come about by our cultivating a critical and reasoned consciousness towards the influences of our lives.[42] The result is a life that thinks and acts differently in the world.[43] Such reflection approaches therefore comprise a second set of general approaches in spiritual formation.

From a neurophysiological perspective, these practices are considered to be central by both Siegel and Dispenza. Self-reflections enable us to identify negative and unhealthy patterns of thoughts, feelings, situations, and behavioral responses and to instead seek to cultivate more healthy ones.[44] Such reflections and self-awareness are, according to Dispenza, the "highest, most elevated level of consciousness" and are therefore one of the keys to transforming the brain's chemistry.[45] Reflections are what enable us to see where both positive and negative patterns are occurring within ourselves as well as with others and these reflections can help us to either encourage their growth or stifle them altogether.[46] Even in very abusive situations, claims Siegel, reflections have the potential to foster healing and prevent these negative patterns from being repeated in the future.[47] As a central approach to spiritual formation, reflection can therefore foster healthy neurophysiological change to each of the three brain systems.

Action

A third set of approaches are those that invite us to act outwardly on the newer life in God that we are seeking to cultivate, often in the form of service.[48] It is by serving that each of us "lives out the very meaning of grace."[49] Not only are such actions intended to be a means by which we journey, but they are also an ideal towards which we continually strive.[50] Such desires to give and to live an ever more Christian lifestyle, it is claimed, are a natural out-growth of a growing life in God.[51] The primary purpose of such actions are that they help to form us more fully into the image of Christ, and it is in doing that we ultimately come to find more of God in ourselves and in the world around us.[52] Concrete action, then, constitutes a third set of general approaches that are considered to be foundational to fostering spiritual growth in the Christian tradition.

From our neuroscience literature, the experiences that we have through such outward actions and service are deeply transformative for the human brain. Not only do we learn from such experiences, which then lead to modified inward and outward neural patterns, but the intentional exercise of our will in such actions brings about the kinds of change that we want to see.[53] Biological evolution itself, Dispenza asserts, is predicated on the organism seeking to productively live in harmony with or even in mastery of its environment and is therefore inherently transformative for both.[54] At its most fundamental level, every action we take, particularly those that are more sensory and physical in nature, more deeply changes the brain and is therefore considered to be integral to its transformation.[55] Transformation itself, Siegel points out, requires intentional and sometimes difficult effort to enact.[56] It is because these actions have the potential to

fundamentally rewire every part of the brain that they are so important for our efforts in spiritual formation.[57]

Stillness

While these first three approaches may seem somewhat obvious, this fourth could be a bit more confusing. Some practitioners hold that stillness and solitude are a necessary set of approaches that disciples should regularly engage in.[58] Such approaches are categorically different than the one's above because they were more concerned with tangible things that a disciple can do: we can read, we can journal, we can serve at a soup kitchen, et cetera. This fourth set of general approaches, however, isn't concerned with action or doing at all. It is, in fact, quite the opposite. It is primarily about being still in one's self knowing that God is active in such motionlessness.[59] It is also about letting the soils of the soul to lie fallow for a time and to gain the needed rest that it requires in the pursuit of its ideals. Stillness and solitude, being categorically different from the first three, therefore comprises another set of general approaches to be used in spiritual formation.

For the brain, intentional stillness can have amazing effects. First, a focused quiet time induces a neurophysiological control that settles the activity of many parts of the brain.[60] This control then allows older patterns and biological connections to diminish while new ones can be remade, thereby allowing unwanted neural cycles to be broken.[61] It allows our reflections to be clearer as well as deeper and it can enable our choices to be firmer.[62] Contemplative practices, such as simply focusing on one's breath, also seems to foster a sense of interconnected with creation, something that results from the kinds of brain integration that these practices nurture, according to Siegel.[63] In essence, then, practices of meditation and stillness generally improve the brain's overall functioning and integration.[64]

Environment

In spiritual formation, individuals are considered to be shaped at three levels of their environment – close relationships, the larger community, and their wider surroundings. As it relates to the level of close relationships, we find significant others who offer advice, provide coaching and accountability, and generally shepherd their mentees into a greater understandings of what a life with God looks like and means.[65] Larger communities, particularly the churches we attend, Christian educators Anne Streaty Wimberly and Evelyn Parker write, "are essential faith "villages" that generate this wisdom formation through giving gifts of time, information, insights, encouragement, and praise."[66] Finally, it is necessary that religious educators give consideration to the cultural, racial, gender, biological, and other environmental dynamics that are at work in our wider surroundings.[67] Our approaches in religious education and spiritual formation must therefore take such environmental influences into consideration and seek to intentionally work with them as well.

From a biological perspective, the human organism continually responds and adjusts to its environment.[68] Such adjustments better enable us to respond with increasing

competency and skill.[69] These adaptations, as we have heard, are what help to drive evolutionary progression.[70] To stay in the same environment for long periods of time, asserts Dispenza, can therefore have the effect of hindering neurobiological change.[71] In our environments, close relationships and communities are central because our biological-self responds to and is deeply formed by how we are treated in and respond to these all-important interactions.[72] Genuine relational intimacy and attunement with others, Siegel claims, allows us to be more empathetic, open to, and tolerant of ourselves and the wider world.[73] Such environmental influences are therefore central because the mind is considered to fundamentally be a relational organ, one that is biologically shaped by our interactions with one another.[74] Taking care to consider such environmental influences in spiritual formation is therefore important because of the impact that it has on the brain as a whole.

Closing Reflections on Alphabet Soup

THSPLF…N: Theological, Historical, Sociological, Psychological, Liberationist, Feminist…Neuroscience. One of the primary purposes of this paper has been to demonstrate that neuroscience is yet another field of study that can help religious educators to better understand and formatively work with the individuals, relationships, and communities that we are called to. As with each of these other fields, neuroscientific research and models can provide us with yet another tool and set of lenses through which to view and reflect on our practices and our research. Not only can an understanding of neurophysiology help us to better understand the kinds of transformations that are occurring within our constituents, but it can also help us to engage the five general approaches outlined above in more effective ways. As such, this relationship between the fields of religious education and neuroscience ought to continue along the same lines as it has for these other fields thereby providing us with another tool for our tool-belt.

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[1] The field of human spiritual formation has sometimes been characterized as only focusing on the level of the individual [e.g., Jack L. Seymour, ed., *Mapping Christian Education: Approaches to Congregational Learning* (Nashville, TN: Abingdon Press, 1997.), chap. 1]. However, in the systematic framework of this author, it is much more expansive than this including other levels such as: relationships, small groups, communities, organizations, societies, cultures, our world as a whole, et cetera. Publications outlining this more expansive view of the field of human spiritual formation are forthcoming.

[2] Mark F. Bear, Barry W. Connors, and Michael A. Paradiso, *Neuroscience: Exploring the Brain*, 3rd ed. (Philadelphia: Lippincott, Williams, and Wilkins, 2007), 24, 26.

[3] Ibid., 46

[4] Ibid., 24.

[5] Ibid.

[6] Daniel J. Siegel, *Mindsight: The New Science of Personal Transformation* (New York: Bantam Books, 2010), 38.

[7] Eric H. Chudler, "Brain Facts and Figures," http://faculty.washington.edu/chudler/facts.html (accessed 17 September 2011).

[8] Walter Mischel, Yuichi Shoda, and Ozlem Ayduk, *Introduction to Personality: Toward an Integrative Science of the Person*, 8th ed. (Hoboken, NJ: John Wiley & Sons, 2008), 135.

[9] Joe Dispenza, *Evolve Your Brain: The Science of Changing Your Mind* (Deerfield Beach, FL: Health Communications, 2007), 106-8; Rita Carter, *Mapping the Mind* (Berkeley: University of California Press, 1998), 33. Siegel, 15. Also note, however, that some neuroscientists have pointed out that while there is some correlation between behavioral functions and brain structures, there is also much difficulty in clearly defining

coherent "systems" within the brain because of its immense complexity and the observed fact that there does not always seem to be "a one-to-one relationship between structure and function"; see: Bear, Connors, and Paradiso, 571. The meta-regions presented herein are therefore only intended as an introductory overview of the brain's architecture and some of the functions therein.

[10] Bear, Connors, and Pardiso, 628; Siegel, 108, 113.

[11] Dispenza, 109; Siegel, 15.

[12] Bear, Connors, and Pardiso, 171; Dispenza, 108-9.

[13] Dispenza, 109.

[14] Ibid., 110.

[15] Siegel, 17.

[16] Bear, Connors, and Paradiso, 568; Dispenza, 110. Siegel, 17.

[17] Bear, Connors, and Paradiso, 568-71; Carter, 81-2; Siegel, 17-8. Note, however, that some neural researchers distinguish between an emotion, our feeling of that emotion, and our consciousness of that feeling; see: Antonio Damasio, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (San Diego: Harcourt, 1999.), 8, 37.

[18] Siegel, 17.

[19] Siegel, 19.

[20] Dispenza, 141; Siegel, 19.

[21] Dispenza 129, 135, 173, 261; Siegel, 26.

[22] Carter, 181-82; Damasio, 16; Dispenza, 346; Siegel, 19.

[23] Dispenza, 147-54; Sergio Morra, Camilla Gobbo, Zopito Marini, & Ronald Sheese, *Cognitive Development: Neo-Piagetian Perspectives* (New York: Lawrence Erlbaum Associates, 2008), 351, 355.

[24] Margaret W. Matlin, *Cognition, 6th Edition* (Hoboken, NJ: John Wiley & Sons, Inc., 2005), 461. Morra et al., 354, 355-6. Siegel, 41.

[25] Bear, Connors, and Paradiso, 404; Dispenza, 4, 14, 56; Charles A. Nelson, Michelle de Haan, & Kathleen M. Thomas, *Neuroscience of Cognitive Development: The Role of Experience and the Developing Brain* (Hoboken, NJ: John Wiley & Sons, Inc., 2006), 38-9.

[26] Bear, Connors, and Paradiso, 710; Dispenza, 184, 192, 238; Siegel, 40, 185.

[27] Dispenza, 238; Siegel, 40.

[28] Dispenza, 4, 44, 238, 241, 424; Siegel, 40.

[29] Bill Hull, *The Complete Book of Discipleship: On Being and Making Followers of Christ* (Colorado Springs, CO: NavPress, 2006), 190; William Law, "A Serious Call to a Devout and Holy Life," in *William Law: A Serious Call to a Devout and Holy Life, The Spirit of Love*, ed. Paul G. Stanwood (New York: Paulist Press, 1978), 91, 115, 121, 206; John Piper, "God is Most Glorified in Us When We are Most Satisfied in Him," in *The Christian Educator's Handbook on Spiritual Formation*, ed. Kenneth O. Gangel and James C. Wilhoit, 74-85 (Grand Rapids, MI: Baker Books, 1998), 83; Anne E. Streaty Wimberly and Evelyn L. Parker, "In Search of Wisdom: Necessity and Challenge," in *In Search of Wisdom: Faith Formation in the Black Church*, ed. Anne E. Streaty Wimberly and Evelyn L. Parker, 11-21 (Nashville, TN: Abingdon Press, 2002), 13.

[30] Robert Clark, "Spiritual Formation in Children," in *The Christian Educator's Handbook on Spiritual Formation*, ed. Kenneth O. Gangel and James C. Wilhoit, 234-46 (Grand Rapids, MI: Baker Books, 1998), 242; Erasmus, "The Handbook of the Militant Christian," in *The Essential Erasmus*, trans. John P. Dolan (New York: New American Library, 1964), 92; Dennis McCallum and Jessica Lowery, *Organic Disciplemaking: Mentoring Others Into Spiritual Maturity and Leadership* (Houston: Touch, 2006), 108; Donald S. Whitney, "Teaching Scripture Intake," in *The Christian Educator's Handbook on Spiritual Formation*, ed. Kenneth O. Gangel and James C. Wilhoit, 164-73 (Grand Rapids, MI: Baker Books, 1998), 164.

[31] *John Cassian: The Conferences*, trans. Boniface Ramsey (Mahwah, NJ: Paulist Press, 1997), 163, 373, 511-2, 515; Erasmus, 35; Jonathan, Jr. Jackson, "Forming a Spirituality of Wisdom," in *In Search of Wisdom: Faith Formation in the Black Church*, ed. Anne E. Streaty Wimberly and Evelyn L. Parker, 154-66 (Nashville, TN: Abingdon Press, 2002), 163; Law, 49, 93; Mel Lawrenz, *The Dynamics of Spiritual Formation* (Grand Rapids: Baker Books, 2000), 19, 57; Timothy O'Connell, *Making Disciples: A Handbook of Christian Moral Formation* (New York: Crossroad, 1998), 148-9; Leland Ryken, "The Puritan Model of Spiritual Formation," in *The Christian Educator's Handbook on Spiritual Formation*, ed. Kenneth O. Gangel and James C. Wilhoit, 49-59 (Grand Rapids, MI: Baker Books, 1998), 57.

[32] Erasmus, 35.

[33] Larry Kent Graham and Jason C. Whitehead, "The Role of Pastoral Theology in Theological Education for the Formation of Pastoral Counselors," in *The Formation of Pastoral Counselors: Challenges and Opportunities*, ed. Duane R. Bidwell and Joretta L. Marshall, 9-27 (Binghamton, NY: Haworth Pastoral Press, 2006), 9; Kathleen J. Greider, William M. Clements, and K. Samuel Lee, "Formation for Care of Souls: The Claremont Way," in *The Formation of Pastoral Counselors: Challenges and Opportunities*, ed. Duane R. Bidwell and Joretta L. Marshall, 177-95 (Binghamton, NY: Haworth Pastoral Press, 2006), 178; Law, 50, 127-8, 179, 184, 193, 240, 250, 258, 300; O'Connell, 142; Rebecca M. Radillo, "A Model of Formation in the Multi-Cultural Urban Context for the Pastoral Care Specialist," in *The Formation of Pastoral Counselors: Challenges and Opportunities*, ed. Duane R. Bidwell and Joretta L. Marshall, 167-76 (Binghamton, NY: Haworth Pastoral Press, 2006), 170.

[34] Dispenza, 189, 200, 233.

[35] Dispenza, 163-64, 354; Siegel, 117-8.

[36] Dispenza, 207, 439.

[37] Dispenza, 186, 394, 405, 413.

[38] Law, 68, 339-40; Wimberly and Parker, 14.

[39] Wimberly and Parker, 13.

[40] Duane R. Bidwell, "Formation Through Parallel Charting: Clinical Narratives and Group Supervision," in *The Formation of Pastoral Counselors: Challenges and Opportunities*, ed. Duane R. Bidwell and Joretta L. Marshall, 143-54 (Binghamton, NY: Haworth Pastoral Press, 2006); Trunell D. Felder, "Counsel from Wise Others: Forming Wisdom Through Male Mentoring," in *In Search of Wisdom: Faith Formation in the Black Church*, ed. Anne E. Streaty Wimberly and Evelyn L. Parker, 89-107. Nashville, TN: Abingdon Press, 2002), 101; Radillo, 174.

[41] Hull, 191.

[42] Erasmus, 45; Graham and Whitehead, 22; Law, 92-93, 95, 345, 351; Yolanda Y. Smith, "Forming Wisdom Through Cultural Rootedness," in *In Search of Wisdom: Faith Formation in the Black Church*, edited by Anne E. Streaty Wimberly and Evelyn L. Parker, 40-56 (Nashville, TN: Abingdon Press, 2002), 40, 53.

[43] Pamela Cooper-White, "Thick Theory: Psychology, Theoretical Models, and the Formation of Pastoral Counselors," in *The Formation of Pastoral Counselors: Challenges and Opportunities*, ed. Duane R. Bidwell and Joretta L. Marshall, 47-67 (Binghamton, NY: Haworth Pastoral Press, 2006), 47, 62.

[44] Dispenza, 34-5; Siegel, xi-xii, 28, 31.

[45] Dispenza, 46, 189, 348.

[46] Dispenza, 387, 431; Siegel, 34, 75, 137-8, 163, 248.

[47] Siegel, 163, 178, 180, 223.

[48] Law, 91, 115, 117, 272; Lawrenz, 19; O'Connell, 180.

[49] Greider, Clements, and Lee, 178; Lawrenz, 128.

[50] Erasmus, 68; Hull, 28; Lawrenz, 9; McCallum and Lowery, 241; Ryken, 50.

[51] McCallum and Lowery, 207.

[52] Hull, 191; Law, 90, 95, 121, 193, 225, 287-8, 344; Lawrenz, 133.

[53] Dispenza, 200, 207, 346, 420; Siegel, 29, 42, 110.

[54] Dispenza, 460.

[55] Dispenza, 56, 189, 195, 233; Siegel, 84, 87.

[56] Siegel, 117-8.

[57] Dispenza, 163-4; Siegel, xii-xiii.

[58] Cassian, 45, 345-6, 375, 386, 512; Law, Ch. 15.

[59] Cassian, 345-6.

[60] Dispenza, 366, 416.

[61] Dispenza, 58, 346.

[62] Dispenza, 416, 464.

[63] Siegel, 92, 257.

[64] Dispenza, 65.

[65] Cassian, 90-1, 93, 512; Peter V. Deison, "Spiritual Formation Through Small Groups," in *The Christian Educator's Handbook on Spiritual Formation*, ed. Kenneth O. Gangel and James C. Wilhoit, 269-79 (Grand Rapids, MI: Baker Books, 1998), 270; Felder, 105; Hull, chap. 8; McCallum and Lowery, 144; Ryken, 53-4.

[66] Cassian, 169, 512; John M. Dettoni, "What is Spiritual Formation?," in *The Christian Educator's Handbook on Spiritual Formation*, ed. Kenneth O. Gangel and James C. Wilhoit, 11-20 (Grand Rapids, MI: Baker Books, 1998), 11; Law, 248, 263. Wimberly and Parker, 17.

[67] Alice M. Graham, "Race and Ethnicity in the Formation of Pastoral Counselors," in *The Formation of Pastoral Counselors: Challenges and Opportunities*, ed. Duane R. Bidwell and Joretta L. Marshall, 87-98 (Binghamton, NY: Haworth Pastoral Press, 2006); Joretta L. Marshall, "Gender Identity, Sexual Orientation, and Pastoral Formation," in *The Formation of Pastoral Counselors: Challenges and Opportunities*, ed. Duane R. Bidwell and Joretta L. Marshall, 113-24 (Binghamton, NY: Haworth Pastoral Press, 2006); Tapiwa N. Mucherera, "Pastoral Formation of Counselors in Intercultural Studies," in *The Formation of Pastoral Counselors: Challenges and Opportunities*, ed. Duane R. Bidwell and Joretta L. Marshall, 99-111 (Binghamton, NY: Haworth Pastoral Press, 2006).

[68] Dispenza, 4, 189, 238; Siegel, 42.

[69] Dispenza, 177, 233.

[70] Dispenza, 166, 460.

[71] Dispenza, 9, 174, 241, 412.

[72] Dispenza, 245; Siegel, 13, 63, 86, 163, 171, 211, 223.

[73] Siegel, 138, 170, 188.

[74] Siegel, 52, 55.