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Abstract

Family and consumer sciences tends to embrace new theoretical innovations every 15 years or so, often with continuity and overlap. The time is right for the next innovation—a movement from integrated to integral practice. After setting out the evolution of the profession’s theoretical innovations based on the ideas of balance, holism, harmony, and integration (systems, ecosystems, and human ecosystems), this article introduces integral practice, an idea that moves beyond integration toward a respect for the tension that emerges from the convergence of ideas, people, and events.

Makela (2007) shared an interesting article on *balance* in family and consumer sciences (FCS), making the case that balance is not a new concept for the profession and that finding it is a continuing challenge. She notes “it is evident that [balance] is *integral* to the field” (p.8, italics added). Her thoughts prompted this article about an *integral* approach to practice, the opposite of assuming a need to find balance. It sets out the evolution of the profession’s theoretical innovations based upon balance, holism, harmony, and integration leading to an introduction of integral practice, an idea that moves the profession toward a respect for the *tension* that emerges from the convergence of ideas, people, and events.

The next section traces the evolution of the profession’s theoretical innovations from systems theory through ecosystems theory to human ecosystems theory. This article challenges our inclination to use integral and integrated as if they were the same concept. Although human ecosystems, with its focus on integration, was a valuable conceptual innovation, it is not the same thing as integral, the focus of this article.

SYSTEMS

It makes sense to value the concept of balance, given our historical penchant for the use of systems theory in FCS practice. Balance and equilibrium are concepts stemming from systems theory, and they were prominent in both the theoretical and philosophical underpinnings of the profession for many decades, beginning in the 1960s (Gross & Crandall, 1963; Gross, Crandall & Knoll, 1973; Knoll, 1963) and continuing today. These concepts still serve a purpose, especially if one is trying to create a balance (a desirable point between two or more opposite forces) or a sense of balance in relationships and aspects of daily life (Makela, 2007).

Through systems theory, FCS can focus on helping families: (a) maintain balance, (b) meet internal and external demands on their daily lives (input), (c) make decisions about the acquisition, use, and disposal of resources (material and human), (d) take actions to deal with internal and external demands (including planning, implementing, and evaluating—throughput), and (e) cope with, analyze, and take action (output) based on their daily activities and decisions as well as (f) deal productively with the impact on the family (feedback). The family system is a holistic concept that enables practitioners to focus on cohesiveness, adaptability, goal directedness, interpersonal dynamics, and relationship maintenance in day-to-day life (Deacon & Firebaugh, 1988).

ECOSYSTEMS

In the late 1970s and into the 1980s, theoretical orientations advanced to include an ecological approach that starts from the whole—family *ecosystems* (Andrews, Bubolz, & Paolucci, 1980; Deacon & Firebaugh, 1988; Hook & Paolucci, 1970; Melson, 1980; Nickle, Rice, & Tucker, 1976; Paolucci, Hall, & Axinn, 1977; Rice & Tucker, 1986). Systems theory allows FCS to conceive the family as a self-directed system or unit and the ecosystem perspective enables examination of the interaction between this unit and other systems. An ecosystem is an interactive system established between a group of living entities (e.g., individuals and families) and the environments in which they live (Tansley, 1935). Central to the ecosystem concept is the idea that families (and other living organisms) are continually engaged in relationships with every other element of their environments—the relationship between living entities and environments sets this concept apart from simple systems theory. "By viewing the family *as an ecosystem*, one can begin to understand how family life may be both the product of environmental forces and a significant creative force in itself. The ecosystem approach allows...focus on the relationships between a changing environment and a changing family...so as to better understand and manage the impact of this change upon families" (Melson, 1980, pp.1–2).

HUMAN ECOSYSTEMS

To better accommodate the impact of conditions in greater environments on how individuals and families function, the profession turned to *human ecosystem theory*, led by Bubolz, Eicher, and Sontag (1979, see also Bubolz, Eicher, Evers, & Sontag, 1980). Bubolz and Sontag (1988, 1993) were especially active in promoting this theoretical innovation. Human ecosystems theory enables FCS to focus on a particular living entity--people and their institutions (individuals, families, and communities)--and their relationship with near environments to procure, use, and dispose of resources to meet basic needs and fulfill basic functions of the family as a democratic unit. Families fulfill the following key functions: (a) love, nurturance, and morale; (b) addition of new family members and their relinquishment when mature; (c) physical maintenance and care of family members; (d) household maintenance and support; (e) social control and teaching of positive values; (f) socialization of children for adult roles; and (g) production (work and labor) and consumption.

There are three levels of environments: (a) natural, physical, and biological as they exist in nature; (b) human built--buildings, roads, infrastructure, and consumer products --made by altering and transforming natural resources; and, (c) the sociocultural--collections of other humans; elements as values, language, and laws; and social, political, and economic institutions (e.g., the marketplace and economy, governments, communities, education, judicial and legal, faith based, workplaces).

Human ecosystem scholars assume all species are integrated with each other as well as with the elements of their near environments. Systems comprise complex interactions between humans and environmental contexts. Scholars use the human ecosystem concept to examine the impact of the integration of multiple environmental factors (sociopolitical, psychological, economic) on human communities and vice versa (see Bubolz & Sontag, 1993, p. 425). A powerful, reciprocal relationship is made stronger because of integration.

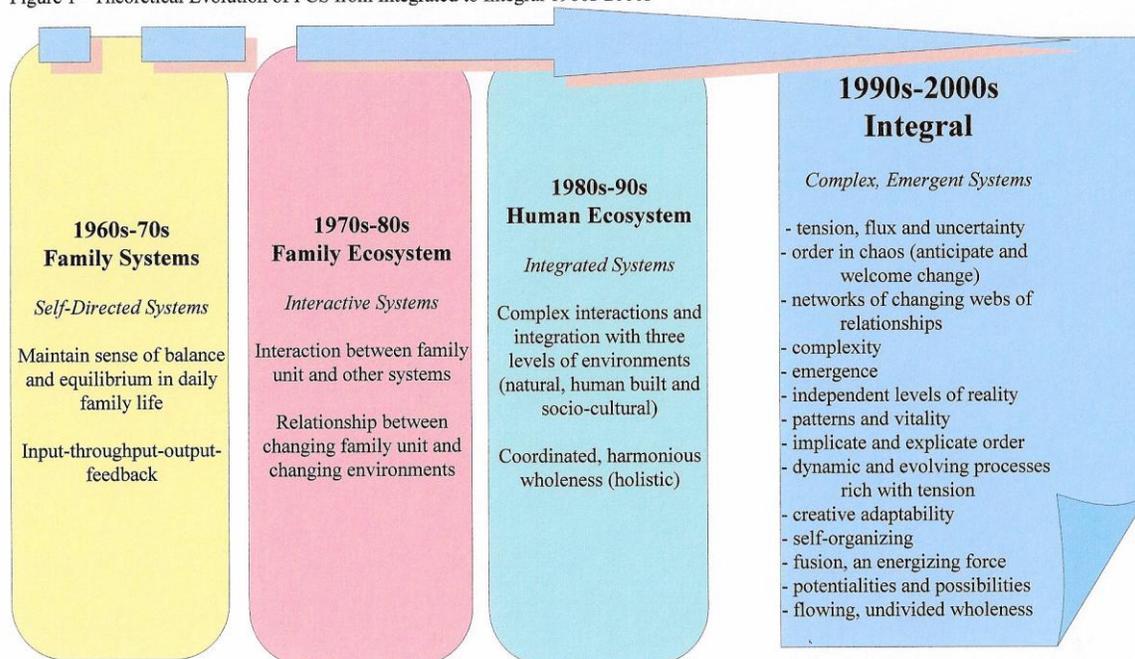
Bubolz and Sontag's discussion of human ecology in home economics also drew on the concept of integration. For them, "The verb 'to integrate' is derived from the Latin verb *integrare* which means to make whole. Several dictionaries define integration as (a) a process of making into a whole by bringing all parts together, (b) a combination and co-ordination of

separate and diverse elements or units into a more complex and harmonious whole, and (c) a unification and mutual adjustment of diverse groups or elements into a relatively coordinated and harmonious whole” (1988, p. 4). Note the repeated reference to harmony and, by implication, balance, in their definition of integrated. Indeed, they explain that central concepts common to understanding integration include harmony, unity, coordination, wholeness, complexity, and functional relationships (see Ferrer, Romero, & Albareda, 2006).

EXPLORING INTEGRAL PRACTICE

It is not surprising that Makela (2007) believes it is important to reiterate the place of balance within FCS practice, given its roots in systems, ecosystem, and human ecosystem theories, and their importance in the field’s theoretical and philosophical repertoire. It seems FCS tends to embrace new theoretical innovations every 15 years or so, often with continuity and overlap (see Figure 1). We have moved through (a) systems theory and balance, (b) ecosystems theory and interrelationships, (c) human ecosystem theory and integration and may be poised for (d) integral theory and emergent, complex systems.

Figure 1 - Theoretical Evolution of FCS from Integrated to Integral 1960s-2000s



Holism and integration convey images of balance, equilibrium, and harmony. In contrast, integral emphasizes the emergent and healthy tension that holds things together as they continually evolve—order in chaos (O’Sullivan, 1999). While *integration* strives for certainty, order, and sureness, *integral* respects uncertainty, disorder, and insecurity. O’Sullivan explained that *integral* reflects the reality of the creative dynamic and evolving nature of human and natural processes, while *integrated* places too much emphasis on holism and harmony. He argued that we need both (integration and integral) because the universe has a violent, unstable aspect as well as a harmonious aspect present in continuous, consistent creation and evolution. Drawing on Stratton and Mitstifer (2001) and Nicolescu (2001), the following text provides a detailed account of what integral practice would look like through the lens of the new sciences (chaos theory, quantum physics and living systems theory).

Respecting Tension and Uncertainty

Integral practice seems to be predicated on an individual's ability to deal with uncertainty, to value chaos, and to desire change. The human condition is in constant flux (dissolving and coming back into wholeness again). Constant movement leads to tension, the interplay among conflicting elements. Tension leads to a condition where forces are being exerted on someone or something. Integral practice entails a deep respect for the emergent tension between a current state and future possibilities. Instead of assuming that tension is an undesired state leading to repeated attempts to re-balance things (Makela, 2007), FCS professionals might consider that an integral approach to practice assumes tension is evidence of order emerging from shifting energies. Those striving to work within an integral practice (emergent evolution to find order in chaos) must find ways to embrace vulnerability, risk-taking, uncertainty, trust, cooperation, public discourse, dialogue, openness with healthy suspicion, and patience with their own and others' impatience and fears (McGregor, 2001).

Integral practice involves people: (a) being ever curious; (b) taking risks in their decisions in a climate of uncertainty; (c) gaining better understanding of complicated, multiple realities; and, (d) gaining enough power to work for improvement in their professional role, and by association, the well-being of global citizens (informed by Smith, Willms, & Johnson, 1997).

Respecting Chaos

From an integral approach to practice, individuals accept that constant flux, tension, and change *create chaos*. Chaos, from the Greek word *Χάος*, refers to unpredictability rather than disorder and disarray. Chaos, in this context, also means emptiness, gaps, and wide-openness. From integral practice, FCS would assume a new relationship between order and chaos, where they are mirror images. Order is created through chaos, emerging from within emptiness as a result of fluctuation, change, and disturbances. Autonomous interactions lead to new complex arrangements (McGregor, 2006).

Indeed, people will *self-organize* (reorganize) and seek solutions to the perceived lack of order (the gap between events). By accepting chaos (an unpredictable, seemingly empty space) as a recognizable step toward the transition, individuals can reach new levels of understanding, especially if they stop looking at the parts and stand back and watch the system over time. People are not surprised when disorder and perceived emptiness emerge—they expect and embrace it. To transform, they must let go and pass through the darkness of chaos--knowing in their hearts that chaos *is* order, without predictability. In the end, they will be renewed and revitalized (Stratton & Mitstifer, 2001).

Gerzon (2006) recommended that people cultivate a sense of whole-centeredness as they respect the energy emanating from the tension inherent in daily life. They can do this by changing their concern for *the part* to a concern for what it is a *part of*. This change in perspective better helps reframe how they view chaos, from a lack of order among parts to a respect for the complexity of relationships among parts and events.

Respecting Web of Relationships

The crux of a chaotic situation is the strength of the web of relationships among people. Within integral practice, people do not try to maintain the old order but enter into trustful, sharing relationships with others who have the same vision and relevant information to create a new order. People hold a different understanding of how change forms: (a) people *form* the older order, (b) then they *storm* when chaos is encountered, (c) followed by *performing* (reorganizing), and, finally (d) new *norms* emerge. If people can move about, come in contact with each other, and get motivated, an energizing force is generated from the tension (called fusion). The strength

and potentialities that emerge from working through tensions are life giving and life transforming. Chances of successfully moving through the transition stage of chaos are increased tenfold if everyone believes everyone else has something to contribute to conversations (McGregor, 2006; Stratton & Mitstifer, 2001).

Not only is the space where people are working changing, but so are the people, their relationships, the nature of shared information and energy flows. Information brought to bear on complex problems will be modified as it is passed from one person to another within changing relationships. Because no one can operate without being a part of the whole, no one can control the process, making relationships even more central to integral practice (McGregor, 2004, 2006). Constantly adapting, fluctuating relationships lie at the heart of what makes solving complex social problems special within integral practice.

Respecting Complexity and Emergence

Central to integral practice is complexity (Latin, *complexus*, entwined or twisted together). FCS professionals are familiar with working on complicated, perennial problems. But, there is a difference between a complicated situation and a complex situation. The former is hard to solve because it is intricate and detailed. For example, FCS has historically helped consumers solve complicated problems by informing their decision-making process to purchase goods and services (McGregor, 2007). When something is complex, its components cannot be separated without destroying the whole (Heylighen, 1996). A complex problem has the additional feature of *emergence*, the process by which new and coherent structures, patterns, and properties are derived. These begin to appear from the interactions inherent in the web of relationships among people. Imagine if FCS dealt with new insights that materialize because of the dynamics inherent when two or more persons work together on an emergent complex problem (containing intertwined parts) rather than solving complicated static problems in isolation.

Because of the link with chaos, complexity is concerned with the predictability of the behavior of dynamic systems over time (including families and related institutions). Within integral practice, FCS must assume that systems are capable of displaying behavior, which, although it has certain regularities, defies prediction (i.e., chaotic behavior). Which familial behavior is exhibited depends on the conditions (the starting point). A family system can operate on the edge of chaos, displaying predictable behavior; however, when it crosses into a zone of instability, chaotic (re: unpredictable) behavior emerges out of the gap, erroneously presumed to be empty. Almost undetectable differences in initial familial conditions lead to gradually divergent reactions to change until the familial behavior that evolves is quite dissimilar from that of other families who are facing the same situation (Rosenhead, 1998). Families will not have to be predictable anymore, only in that FCS can predict that they will face chaotic situations and have the potential to become stronger and better. This insight turns FCS practice on its head--it lessens the need for balance.

Also inherent in the idea of complexity is *self-organization*, the process by which the internal organization of a system increases in complexity without being guided or managed from an outside source. Self-organizing behavior, within a family for example, entails each of positive and negative feedback, a balance of being exploited and of exploring alternatives, and the role of multiple interactions. Because these interactions are non-linear and not predictable, they are characterized as robust, flexible, autonomous, and spontaneous. Self-organizing behavior, recognized as spontaneous emergence of a structure out of local interactions, is responsible for most new patterns and orderly arrangements (however temporary) found in society (Heylighen, 2008). Chaos, complexity, and emergence are necessary parts of contemporary family life. This

is a powerful lens from which to engage in integral practice, a huge shift from balance, equilibrium, and predictable security.

Respecting Levels of Reality

Integral practice involves accepting reality as a coherent whole comprising several layers. From this perspective, FCS professionals can assume they constantly must be aware of all layers of reality, as they look at any particular layer. This realization prevents them from looking at just one aspect of a problem. The many layers of reality to consider include: (a) the invisible particle layer; (b) the material layer, (c) the biological (ecological), social, and psychological layers; (d) the economic, political, and technological layers; and (e) the spiritual layer of a complex problem. FCS is challenged to never lose sight of the whole when dealing with complex social issues. Imagine the doors that will open if FCS assumes that independent realities exist concurrently and that these realities manifest themselves through people's interactions with them (i.e., things change when they are observed). Individuals would never cease to wonder and would seek far-reaching solutions to the world's pressing problems. Envision the depth of FCS's understanding of the world if it embraced this mind set, even when the idea is counter to common sense (McGregor, 2004, 2006).

The notion of 'levels of reality' is a key part of integral practice. Matušík (2007), an integral scholar, enriches the multiple layers of reality with the idea of three fields of need--material needs, social and cultural needs, and spiritual needs. He posits that when people experience dissonance between one of three fields of needs and society's ideal for each of these needs, they see the disconnects as the impetus for transformation of the fields. This transformation leads to an integration of material hopes, sociopolitical hopes, and spiritual, redemptive hopes. These three fields (and their attendant ideals and hopes) represent the basic nourishment necessary for sustaining human existence--the human condition (Matušík). Like Nicolescu (2001), Matušík asserts that none of these fields of need can be satisfied by another field. People must be constantly aware of all three fields of need as they look at any particular need. The notions of concurrent levels of reality and multiple fields of need provide intriguing new insights for FCS practitioners engaged in integral practice.

Respecting Patterns

Another central aspect of integral practice is patterns. Patterns conventionally are understood to be activities done without thinking. A different perspective is assumed within integral theory, that patterns serve as templates that help people find similarities and make connections among things they would not normally connect. Living systems theorists look for common, predictable patterns instead of separate ideas. Patterns help individuals move away from the alienating jargon and semantics of specific disciplines toward a purer language, a set of concepts that is not influenced by each disciplines' opinions and prejudices. Instead of creating interdisciplinary teams, FCS would work toward creating new transdisciplinary concepts of which patterns are central because they provide a template to find similarity among things and entities that are not alike (McGregor, 2004, 2006). Making unlikely connections leads to powerful new insights into complex social problems affecting the human condition.

Not surprisingly, this approach to practice makes for much richer problem posing and problem solving, even for richer problematizing, defined as a process by which certain behaviors, phenomena, or processes become a problem to which people pay attention. People create issues, name them, frame them, and present them as problems. As they do this, they define the identity and interests of actors and their respective positions. The history leading to the issue in question is reconstructed. And, they conceptualize the situation where the issues are at play

(paint a picture of this reality) (McGregor, 2006). Integral practice, with a focus on complex, emergent patterns, gives FCS a professional edge. An outcome will be problem posing and pattern finding that is informed by learning about and questioning the traditional and accepted knowledge, information, values and approaches (formerly taken for granted or accepted as inevitable).

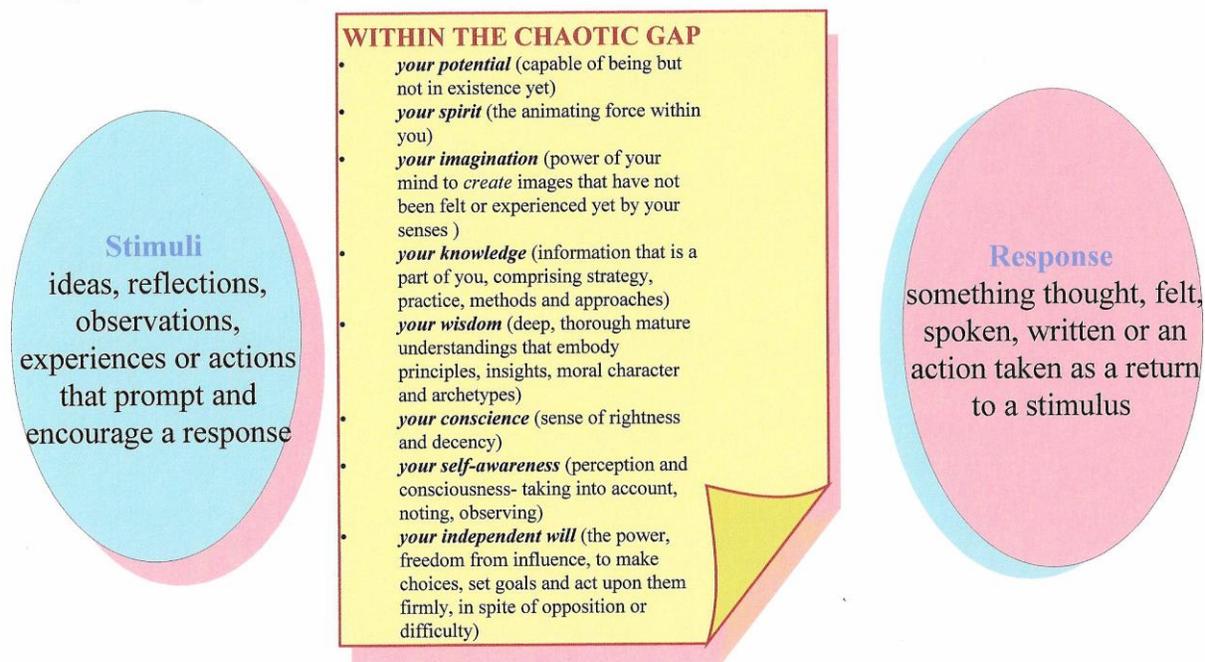
Respecting Different Kinds of Order

A final concept central to emergent relationships in chaotic situations is the holomovement, from the Greek word *holoteles*, meaning undivided and complete. Quantum scholars believe things are in constant flux, continually enfolding and unfolding. More is happening during this movement than meets the eye. Within this undulating milieu, there are independent sub-totalities with relative autonomy (such as physical elements and human entities); yet, all entities are connected to the whole. This idea enables FCS to see the profession and families as an undivided ‘wholeness,’ in flowing movement without borders. Instead of perceiving a collection of separate parts, people conceive an undivided whole that is in perpetual dynamic flux, with complex emergent properties (McGregor, 2006).

One can begin to appreciate the significance of chaos in this context. Inherent in the holomovement are two different kinds of order, (aside from chaotic order--implicate and explicate (Bohm, 1980). Implicate order (to fold inward) is invisible, fundamental, and underlies the whole. As an example, FCS could call this its philosophy, mission, and value system. On the other hand, when parts of the whole manifest themselves so that others can actually see them, others are seeing the explicate order (to unfold). Imagine a slinky in motion. When the slinky is inert, it sits on a desk or in one’s hand. If set in motion, the coils separate,(revealing a glimpse of that section of the whole; yet, the coils are always connected to the whole even when the entire slinky is in motion. When the contents of the holomovement lift to become something one can see, others then perceive an ensemble of parts that continue to relate to the invisible whole (McGregor, 2006). From this perspective, it is possible to suggest that if all members of the FCS profession held to the same philosophy, then members of the public could observe any FCS professional in practice (unfolded explicate order) and know by their actions that they are informed and supported by this powerful underlying principled body of philosophical energy (enfolding implicate order) (McGregor).

These two forms of order are an intriguing part of an integral approach to practice, as are the ideas that the whole is in perpetual movement and that every portion of the flow contains the entire flow (McGregor, 2006). Imagine a lava lamp. The viscous fluid is always moving, with new bubbles flowing up and back into the whole again. If FCS can envision themselves immersed in this undulating viscous fluid, it can be suggested that, as new knowledge ‘falls back down on them,’ they are engaging in embodied practice, where what is learned becomes part of the self. The new self and the whole are embedded in all of the parts. Everything is connected. There is constant tension, flux, and movement; yet, order always returns, if but for a moment. From an integral approach to practice, people must learn to *be in the moment*, being conscious of the gap (the chaotic situation) between being stimulated by something and responding to it (Stratton & Mitstifer, 2001). Within integral practice, FCS can assume that leadership happens in the gap--in the chaos (see Figure 2).

Figure Two - Integral Leadership Within the Gap Created by Chaos (emergent from Stratton and Mitstifer, 2001)



EMERGENT CONCLUSION

Integral leading and practice is unfolding in the FCS profession (see Figure 1). By its very nature, an integral approach infers vitality, power, potency, and endless possibilities and potentialities. It takes FCS beyond its past perspective on striving to maintain balance. It provides a means to expect and respect tension in life, rather than trying to avoid it. It offers a way to expect and value chaos as a transitory state to new order, insights and evolution.

Integral practice means FCS will need to embrace creativity, courage, fortitude and resilience. Integral practice involves cultivating new skills on many levels (personal, professional, political and social) with an appreciation that each skill enhancement has a beneficial impact on other skills--things are always changing and evolving, creating tensions that have to be respected from a place of balance and centeredness (Ferrer, 2004). Campbell (2006) referred to this process as an integral dance that cultivates all human dimensions leading to deep, meaningful practice, not just efficient and effective practice. Ferrer tenders intriguing processes that FCS can strive for: integral enlightenment, integral embodiment, and integral transformation. These processes can engender new capabilities and potentials leading to integral evolution and leadership (remember *FCS leads in the gap*, see Figure 2). FCS can choose to embrace integral ways of perceiving, thinking, researching, and serving. Ferrer references an *energetic axis* from which practitioners can strive for the transformation of everyday life and the world through integral personal, cultural, social, and ecological initiatives that respect the tensions inherent in chaotic change.

Wilber calculates that 2% of the population is now integral, with a chance for this to grow to 10-% percent or more because “integral theories or attempts at such are already starting to emerge across the board in academia...we appear to be entering an integral age at the leading edge” (2007, p. 1). FCS can be on that leading edge. “Once we have written or created

something and ‘let it go’ out and into the world by sharing it with others, then we have to accept that we no longer control it, but that we may continue to learn from what others do with it” (Campbell, 2006, p. 33). From this sentiment, I offer FCS the idea of integral practice and look forward to seeing what the profession will do with it in the future. Welcome to the conversation of integral practice.

REFERENCES

- Andrews, M. P., Bubolz, M., & Paolucci, B. (1980). An ecological approach to study of the family. *Marriage and Family Review*, 3(Spring/Summer), 29–49.
- Bohm, D. (1980). *Wholeness and the implicate order*. London: Routledge.
- Bubolz, M., Eicher, J. , & Sontag, M. S. (1979). The human ecosystem: A model. *Journal of Home Economics*, 71(1), 28–31.
- Bubolz, M., Eicher, J., Evers, S. J., & Sontag, M. S. (1980). A human ecological approach to quality of life. *Social Indicators Research*, 7(1–4), 103–136.
- Bubolz, M., & Sontag, S. (1988). Integration in home economics and human ecology. *Journal of Home Economics and Consumer Studies*, 12(1), 1–14.
- Bubolz, M., & Sontag, S. (1993). Human ecology theory. In P. Boss, W. Doherty, R. LaRossa, W. Schumm & S. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 419–448). New York: Plenum Press.
- Campbell, A. (2006). The dance integral. *Integral Review*, 3(December), 29–38. Retrieved from <http://integral-review.org/documents/Campbell,%20The%20Dance%20Integral%203,%202006.pdf>
- Deacon , R., & Firebaugh, F. (1981). *Family resource management* (1st ed.). Boston, MA: Allyn & Bacon.
- Deacon , R., & Firebaugh, F. (1988). *Family resource management* (2nd ed.). Boston, MA: Allyn & Bacon.
- Ferrer, J. N. (2004, May). *Integral transformative practice: A participatory perspective*. Retrieved from <http://www.integralworld.net/index.html?ferrer.html>
- Ferrer, J., Romero, M., & Albareda, R. (2006). The four seasons of integral education. *ReVision: A Journal of Consciousness and Transformation*, 29(2), 11–23.
- Gerzon, M. (2006). Integrity, integral vision and the search for peace. *Integral Review*, 2(June), 10–13. Retrieved from <http://integral-review.org/documents/Gerzon,%20Integrity,%20Integral%20Vision,%20Peace%202,%202006.pdf>
- Gross, I. H., & Crandall, E. (1963). *Management for modern families* (1st ed.). New York: Appleton-Century-Crofts.

- Gross, I. H., Crandall, E. W., & Knoll, M. M. (1973). *Management for modern families* (3rd ed.). New York: Appleton-Century-Crofts.
- Heylighen, F. (1996). What is complexity? In F. Heylighen, C. Joslyn & V. Turchin (Eds.), *Principia cybernetica Web*. Brussels: Principia Cybernetica. Retrieved December 31, 2007 from <http://pespmc1.vub.ac.be/COMPLEXI.html>
- Heylighen, F. (2008). Complexity and self-organization. In M. Bates and M. N. Maack (Eds.), *Encyclopedia of library and information sciences*. London: Taylor & Francis. Retrieved from http://pespmc1.vub.ac.be/Papers/ELIS_Complexity.pdf
- Hook, N., & Paolucci, B. (1970). The family as an ecosystem. *Journal of Home Economics*, 62(5), 315–318.
- Knoll, M. (1963). Toward a conceptual framework in home management. *Journal of Home Economics*, 55 (May), 335–339.
- Makela, C. J. (2007). Balance in family and consumer sciences: A continuing challenge. *Journal of Family & Consumer Sciences*, 99(4), 5-8.
- Matuščík, M. B. (2007). Towards an integral critical theory of the present age. *Integral Review*, 5 (December), 227–239. Retrieved from <http://www.integral-review.org/documents/Matustik,%20Towards%20an%20Integral%20Critical%20Theory%205,%202007.pdf>
- McGregor, S. L. T. (2001). Participatory consumerism. *Consumer Interests Annual*, 47. Retrieved from http://www.consultmcgregor.com/documents/research/PARTICIPatory_consumerism.pdf
- McGregor, S. L. T. (2004). The nature of transdisciplinary research and practice. *Kappa Omicron Nu Human Sciences Working Paper Series*. Retrieved from <http://www.kon.org/hswp/archive/transdiscipl.html>
- McGregor, S. L. T. (2006). *Transformative practice*. East Lansing, MI: Kappa Omicron Nu.
- McGregor, S. L. T. (2007). Consumerism, the common good and the human condition. *Journal of Family & Consumer Sciences*, 99(3), 15–22.
- Melson, G. F. (1980). *Family and environment: An ecosystem perspective*. Minneapolis, MN: Burgess.
- Nickle, P., Rice, A., & Tucker, S. (1976). *Management in family living*. New York: Wiley.
- Nicolescu, B. (2001). *Manifesto of transdisciplinarity*. Albany, NY: State University of New York Press.
- O’Sullivan, E. (1999). *Transformative learning: Educational vision for the 21st century*. New York: St. Martin’s Press.

- Paolucci, B., Hall, O., & Axinn, N. (1977). *Family decision making: An ecosystem approach*. New York: Wiley.
- Rice, A., & Tucker, S. (1986). *Family life management* (6th ed). New York: MacMillan.
- Rosenhead, J. (1998). Complexity theory and management practice. *Science as Culture Online Journal*, retrieved from http://www.human_nature.com/science_as_culture/rosenhead.html
- Smith, S. E., Willms, D. G., & Johnson, N. A. (Eds.). (1997). *Nurtured knowledge: Learning to do participatory action-research*. Ottawa, ON: International Development Research Centre.
- Stratton, S., & Mitstifer, D. (2001). *Reflective human action: Introduction and course syllabus*. East Lansing, MI: Kappa Omicron Nu. Retrieved from http://www.kon.org/rha_online_files/rha_online.htm and http://www.kon.org/rha_online_files/rha_online2.htm
- Tansley, A.G. (1935). The use and abuse of vegetational concepts and terms. *Ecology*, 16, 284–307.
- Wilber, K. (2007). *Excerpt A from 'Kosmic Karma and Creativity': An integral age at the leading edge*. Retrieved from <http://wilber.shambhala.com/html/books/kosmos/excerptA/part1.cfm>