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CONTENT

This session will provide social workers with utilitarian theory and clinical examples that will enable them to incorporate personal, political, global and spiritual issues in their social work teaching and practice. The presenters will provide a prism through which social work professionals can envision a positive future for the planet.

PAPER

Global Commitment and Clinical Social Work: A Time to Realign Social Work's Traditional Value and Practice Foundations with Societal Models of Peace and Nonviolence.

By

Richard Ramsay & Dorothy Van Soest

**Global Commitment and Clinical Social Work: A Time to Realign
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with Societal Models of Peace and Nonviolence.**

As we enter the last decade of this century, the timing seems right to re-examine the value and practice foundations of North American social work. The need for this examination is based on two observations. One comes from our conclusion that existing value foundations have been influenced by an underlying societal model of reality, which for centuries has perpetuated conditions of violence and injustice in human societies. Replacing this form of reality with a different model of reality may provide social work professionals with a better value base to envision and shape nonviolent, mutually sustainable (co-evolutionary) relationships between our planet and the human societies that coexist with it. The other comes from our view that the theory and practice foundations of social work, after almost one hundred years of development, are still tied too tightly to machine metaphor determinism of pre-20th century science. By re-examining the limitations of over identifying with this empiric-sensory perspective, coupled with a full exploration of 20th century science support for whole system perspectives, a model may emerge to give the profession a practice based infrastructure grounded to a more dynamical perspective, which can be used to universally depict what social workers do, globally and locally.

This paper invites social workers to 1) explore the emerging new theory of Cultural Transformation, developed by Riane Eisler (1987), as a theoretical base to anchor the value foundations of the profession to a societal model of reality that is not embedded with traditions of violence and injustice; 2) consider adopting the holistic model proposed in this paper as a universal infrastructure, useable anywhere in the world to depict the simple or complex realities of social work practice within specified political-cultural contexts and; 3) think of the proposed models as non-violent approaches that can be used to dissolve into co-operative partnership the harmful conflicts between empiric-sensory purists and other legitimate methods of scientific practice. We are quite convinced that both models (a new societal model and a new practice model) can be supported by "new science" discoveries in mathematics, physics and biology, including new theories related to the Gaia hypothesis, fractal geometry and chaos (Zukav, 1978; Hayward, 1984; Capra, 1985; Augros and Stanciu, 1987; Lovelock, 1988; Sahtouris, 1989; Briggs and Peat, 1989; Prigogine and Stengers, 1985; Laszlo, 1987; Margulis, 1987; Gleick, 1988).

Eisler's work will help us look through the prism of history in an entirely new way, giving most of us a first time look at the deep traditions of holism and mutual cooperation that operated in ancient Neolithic civilizations several millennia (thousands of years) ago. We believe that her work and the scientific works of others (Lovelock, Margulis, Sahtouris and Laszlo, for example) will encourage the profession to more directly align its value foundations to a societal model of reality' that has the mutually cooperative traditions of these ancient civilizations and tie its theory and practice foundations more specifically to this century's emerging new sciences of wholeness. The consequences of not making these new alignments could keep the profession confined inside a counterproductive model of reality based on assumptions of male superiority and the mechanical nature of all science; the supremacy of a monoscientific method (objective, empiric, reductionistic); and the absolute correctness of economic (Malthusian), biological (Darwinian), and social (Spencerian) theories of evolution by natural selection. Simply stated, social work would continue to be influenced by domination models of reality based on notions of hierarchic evolution, aggressive competition and man's natural domain over nature.

The presence of a domination model in generations of human societies dates back many centuries to

the first evidence of invasion-minded nomadic tribes. These warrior-led tribes are said to have acted as “peripheral isolates” and started the transformation of Neolithic civilizations from mutually cooperative “partnership” models to hierarchic “dominator” models (Eisler, 1987). According to Eisler (1987) and Sahtouris (1989), evidence of dominance, destruction and oppression based traditions are easily found in both ancient and modern history. Their sources include ancient Greek writings on the philosophies of materialism and idealism; early records on the emergence of male-god religions; modern science’s belief in man’s right to exploit nature with impunity; the purges of evil women and other heretics during the Inquisition period; Cartesian theories about mind-body separations; reported observations of the natural selection mechanism in evolution; and the moral certainty proclamations of reformist religions.

How much has social work been affected by the traditions of dominance and pre-20th century science? Quite a lot, as we shall see. The mind-body separations of Cartesian dualism for example, are still real enough in social work that some NASW ‘90 conference organizers worried that a pre-conference Institute on peace and global commitment issues might not interest clinical and mental health social workers - the two largest membership groupings in NASW. The concern was that clinical social workers would see their work with individual and family systems to be separate from global issues tied to starving children or the “peacekeeping” policies of nation-states stockpiling mass destruction armaments. If this kind of Cartesian mindset is still operative in our profession, clinically minded social workers may be hard to convince that global and domestic issues are now known to be co evolutionarily coupled in a way that their domestic separateness might be implicated in the perpetuation of the highly dangerous war and armament model of reality, currently present in virtually all human societies. By way of brief explanation, ‘co-evolution couples large-scale and small-scale in a seamless cycle of mutual causality’ (Briggs & Peat, 1989: 164). In this context, the macro and micro sides of social work cannot evolve independent of each other. New scientific evidence proves that minor fluctuations occurring at one point in a system can in time trigger major non-predictable changes in other places (Glieck, 1988). In a positive sense, it is nice to know that that the actions of one or two people can make a large-scale difference in the policies of a much bigger system. On the negative side, failure by social workers to take seriously the evidence of this co-evolutionary link could blind them to the evidence that dominator model influences in their domains of practice contribute to the war and armament mentality, which fuels so much of modern day “progress.” This type of progress, as social workers around the world will tell anyone who cares to listen, has a not so hidden underbelly of discrimination, hatred, poverty, inequalities, violence and a wanton disregard for the “life” of the planetary environment in which we live. Ironically, these co-evolutionary couplings trap North American social work into being shaped by the very’ macro-level philosophies and ground rules that its micro-level methods of clinical practice have sought to eliminate in individual and family relationships. If it’s true that social work is caught in this interconnected trap, all of us, individually and collectively, face the challenge of how to help the profession extricate its value and practice foundations from the limitations of destruction dominated models of society and machine models of scientific determinism.

Under the general heading of social workers and global commitment, we will share some ways we think the foundations of social work can transform away from dominator models without discarding the deeper meanings and intentions of long held practice values that have evolved and matured over the past one hundred years. The whole systems model we plan to introduce may give our profession a preferred way to pursue wholeness and global commitment without sacrificing the need or the opportunity for a diversity of indigenous local applications. As already mentioned, we will make several references to 20th century’ scientific developments, especially in physics, biology, feminism, fractal geometry and geophysiology which provide “solid” documentation about the limitations of scientific determinism and amplify the advantages of adding more nonlinear views of science to our practice foundations. We will also try to show you that intuitive methods of problem-solving, often

denigrated in social work for their lack of empiric-sensory rigor, are recognized as legitimate methods of scientific inquiry in some of the “hard” sciences (Watson, 1968). We will caution you, however, that an exaggerated emphasis on intuition will deny differences and reality testing, creating practice efforts that lack clarity and precision. On the other hand, if we exaggerate intellect an imbalance is created in the direction of “quantity, separation, analysis and abstraction” (Hayward, 1984: 30). Overall, we will advocate that all social workers, practitioners and educators combined, should begin the process of openly “retooling” the value and practice foundations of the profession to more closely fit with ancient societal models of mutual cooperation and the new nonlinear findings being generated by 20th century science. In doing so, we are hopeful that our discipline will prepare itself to enter the 21st century as a leading edge “design science-profession” - giving it a more comprehensive base than the narrow base constraints that characterized its evolution from a 19th century “friendly” visiting vocation to a 20th century “scientific” treatment profession.

The first part of the paper will focus on evidence that links social work’s method- bound traditions to the mainstream tenets of pre-20th century sciences and philosophies. Second, we will introduce some of the basic tenets of ancient Neolithic societies, as well as some new science discoveries, and positively link this information to the value foundations of cooperation and mutual harmony found in almost all social work literature. From this, we will describe the whole systems perspective that we believe can accommodate both linear and nonlinear features of our discipline and give the profession a common conceptual infrastructure. We will close with some thoughts about how social workers can use these models to help promote in others global and local commitments to problem-solve conflicting interests through cooperative actions.

Quick Review of Social Work’s Beginnings

Eisler tells us the rise of the 19th century women’s liberation movement helped to pave the way for the emergence of new professions like nursing and social work. Our own literature tells us that early practice methods were rooted to Charity Organization Societies (COS) and the university settlement house movement, both of which had their beginnings in the United Kingdom (Franklin, 1986). The COS organizations were known for their “friendly” visiting methods linked to the practice wisdom of moral certainists. The settlement house volunteers were known best for their “live-in” advocacy methods linked to the practice wisdom of grass-roots mutual aid and champions of social justice. In North America, Mary Richmond is our most recognized pioneer associated with the COS movement and the person most credited with changing friendly visiting casework to a more scientific form of social casework based on the fact finding investigative methods of law and medicine. Richmond was one of the first to call for formal training in social work at the turn of the century, but stopped short of recommending full integration into university programs. She maintained a strong belief in the importance of apprenticeship training in social service agencies, a legacy that has survived to this day. Jane Addams, as we know, pioneered the settlement house movement on this side of the Atlantic, which spawned the beginnings of our recreational group work method and eventually our community organization method.

If the women’s liberation movement helped give birth to social work, medicine had a great influence on its formative years. At the turn of the century, medicine faced considerable criticism for its longstanding links to an apprenticeship model of education. In 1910, the recommendations of a national survey, designed to put medical education on a sound scientific foundation, was published (Capra, 1983: 159). The report, written by Abraham Flexner the guru of American medical education in his day, set down strict guidelines to make sure medical schools were in universities and committed to teaching and research. The study of disease, not the care of the sick was to receive priority. In his recommendations, he made it quite clear that physical examinations were more relevant to a diagnosis than other assessment variables, such as the emotional state, family history or social situation of the patient. Recent findings reveal that Flexner’s total commitment to sound

research was compromised by his personal attitudes about the research work of black scientists. We are given a shocking glimpse of these attitudes by Stephen J. Gould (1987: 176), who documents several occasions where Flexner's "crushing paternalism towards blacks" was used to prevent Ernest J. Just, a brilliant young research biologist, from receiving financial support for his work. This is the same person, who in 1915 gave an invited keynote address, *Is Social Work a Profession?* to American social workers that probably did more to shape (or, should we say mis-shape) the direction of social work in this century than any other single event (Austin, 1983).

In his address to the National Conference on Charities and Corrections, Flexner repeated his paternalism toward the lesser ranked and marginalized in society by concluding that the emerging female-led discipline of social work did not qualify as a profession. It was too mediative (focused on relationships instead of things); it was too broad based (not specialized enough), and it lacked a clearly defined and teachable method of practice (its procedures weren't scientific enough) (Austin, 1983). So, what else should we have expected from a hierarchic-minded male grounded to a 19th century machine metaphor model of science? As an aside for those interested in what else might have influenced our history in 1915, this was the year Einstein published his theory of general relativity, the second of his two breakthrough theories, confirming the flaws of Newtonian science. Where might social work be today if it had developed problem-solving methods based on a model of nonlinear relativity instead of a linear model of verifiable fact-finding?

Flexner's address appears to have significantly influenced both the direct and indirect practice foundations of our profession. Our two most heralded pioneers, Mary Richmond and Jane Addams, were in the middle of a ten year competition for the leadership of our young profession (Franklin, 1986). Addams was heavily into partisan politics, chairing the policy platform for Teddy Roosevelt's unsuccessful Presidential bid. She was an active anti-war lobbyist and peace advocate for which she later received a Nobel Peace prize. Richmond was not into partisan politics, but did support American involvement in the war effort.

Richmond, however, was the first "off-the-block" to remedy Flexner's criticism that we lacked a teachable scientific method when she published her classic *Social Diagnosis* (1917). Social casework with a heavy emphasis on investigative fact -finding quickly became social work's teachable treatment method and soon established a dominant foothold among all practicing social workers. The specialization criticism was addressed with the growth of specialized casework methods in specialty fields of practice, along with, in some cases the formation of separate professional associations.

What could have been a crippling blow to the new profession occurred in the early 1920s when the American Red Cross, which had recently endorsed the hiring of social workers as a major part of its staffing policies, reacted negatively to Addams' high profile in politics and decided to remove all social caseworkers from its employment, rationalizing its actions on the primacy of its policy on neutrality. Social casework suffered a major setback, but didn't die. The social justice "stuffing," however, was likely scared out of the average social worker for quite awhile, along with any collective commitment to ground our profession on the peace and nonviolence principles of Jane Addams. Once the dominance of social casework methods took hold, the similarity of Richmond's social diagnosis method to Flexner's physical examination priorities for medicine was striking. This similarity is vividly described in Helen Harris Perlman's account of her first job as a social worker in the 1920s:

"Get the factual data" was the guiding principle. And "data" were, the stripped-down facts of the so-called *objective* reality. Only short shrift was given to the facts of the client's feelings, his hurts, his fears, his embarrassments, the facts in short, of his *subjective* reality and its involvement as cause or effect, of the presented problem (Perlman, 1989: 213).

The profession's concern about the over proliferation of specialist casework methods surfaced in the mid 1920s, resulting in the Milford Conference, a group of agency leaders meeting annually over a five year period. Their 1929 report states the case for a generic social casework method. Although fields of practice and other specializations continued to develop, this group stopped the expansion of casework specialties. Even though these early leaders alerted the profession to the dangers of over specializing, their report did support "scientism" as the way to achieve professional respectability (Zimmerman, 1989: 59).

During the years of the Milford conference meetings, the popularity of Freudian psychology swept North America. Social workers were in the forefront of accepting this new science of human development. Penman gives a good account of why social workers were so quick to buy into developmental psychology: "This swing to psychodynamics was in part due to the caseworkers own need to find some escape, some surcease from a long involvement in battering socioeconomic conditions that keep us anxious, often despairing, continuously fatigued" (1989: 218). By 1930, social casework was the "in" method of social work and clearly linked to a reductionist biomedical framework; developmental psychology was the "in" theory of human behavior and fully incorporated into the curricula of schools of social work. Social work as a young profession was well underway, fully tied into theory and practice methods drawn from the worldview of Newtonian mechanics that had dominated the core development of all natural sciences throughout the 18th and 19th centuries.

In these same 30 years, however, the science of physics announced several breakthrough discoveries, which documented the limitations of the Newtonian worldview (especially assumptions that the laws of Nature were identical to the laws of mechanics) and launched physics into a century of exciting findings about relativity, uncertainty, complementarity, wave-particle movements, chaotic strange attractors, etc. To pause on these findings for a moment, Heisenberg's principles of uncertainty showed the scientific world that you can't accurately determine where something is at and where it is going at the same time; accurate knowledge of the parts at a given point in time will not predict the actual outcome at another point in time. Bohr's principle of complementarity provides an appreciation of the impossibility of dealing with certain aspects (usually opposites) of reality simultaneously. The psychosocial manifestation in his own life was the experience of not being able to punish his child for an inexcusable act; he couldn't know his child in the light of love and justice at the same time. Understanding nonlinearity taught us that the "act of playing the game has a way of changing the rules" (Gleick, 1988: 24).

Unfortunately, all of the so-called branch or extension sciences of physics - natural and social - didn't follow the same scientific leads, remaining almost exclusively tied to the mechanical principles of Newtonian determinism and reductionist empiricism in an effort to generate new knowledge in their specialty disciplines. Social work, because of its newly founded theory and practice ties to the medical and psychoanalytical sciences, missed the significance of these discoveries at the level of human relations until mid-century when general systems theories were introduced, helping us re-establish a professional focus on the mutuality of linkages in the person-in-environment domains of the people with whom we work. Even so, a critical examination of how this century's scientific discoveries, such as the aforementioned principles of uncertainty and complementarity, impact on the theory and practice of social work has yet to happen with any degree of comprehensiveness. Part of our objective in this paper is to motivate you to begin your own examination. But, first let's take a closer look at the evidence that links social work to the foundations of pre-20th century science and its dominator model of reality.

Linkages to "Old" Science

Augros and Stanciu (1988) review some of the famous attempts to fit the Newtonian foundations of physics into other sciences. The economic theories of Thomas Malthus paraphrased Newton's first

law of motion to support the assumption that humankind was naturally lazy (inert) and unwilling to work unless externally forced to do so. Malthusian economics are believed to have been one of the foundations for Darwin's conclusion that the mechanism of evolution was natural selection governed by ruthless competition in a hostile ("red in tooth and claw") environment in which only the fittest would survive. These assumptions were used by Spencer to construct a draconian Social Darwinian philosophy advocating the natural elimination and probably the "good riddance" of the poor and weakest members of society. The idea that man is an inert force requiring an external force to make him move also was used by Marx to support his contention that external social forces determines human consciousness; one's consciousness does not determine his/her existence. Freud's psychology was modelled on mechanistic biology, claiming that humans are basically of weak intelligence ruled by their instinctual wishes (Augros & Stanciu, 1988). The behaviorist psychology of Skinner rests on the premise that human behaviour as a whole is fully determined; humans have no part in their own destiny as initiating, creative agents. In summary, the old science supporters:

Malthus, Marx, Freud, and Skinner agree on one thing: man is not an agent in his own right, but is acted upon by inner and outer forces beyond his control. In the full rigor of the mechanistic scheme, man cannot act for a conscious purpose (Augros & Stanciu, 1988:9).

Reductionism is said to be the philosophy that affirms the idea that all sciences and disciplines are reducible to physics once all the facts of these separate areas are understood. Materialism is the doctrine that claims the "building block" of all human experience is reducible to an understanding of the physics of matter. Objective observation confirmed by controlled experimentation was singled out as the only sound method of science to find the mechanically determined facts of all living and nonliving matter.

Social work's beginnings are easily traced to genuine concerns for the intrinsic worth and dignity of all people. In its earliest forms social work was recognized as a new discipline response to observed social injustices, poverty and discrimination inherent in the rise of capitalism and industrialization in 19th century societies. In spite of these humane foundations, social work's methods of professional help were quickly grounded on the prevailing mechanical worldview that was itself a large part of the problem. Hindsight proof of this can be documented in the way our pioneers were persuaded by the strong influence of medicine to adopt a scientific method of helping, clearly tied to the objective fact-finding reductionism of classic physics. Our early endorsement of Freudian psychology further tied our understanding of human development and the evolution of our profession to a machine-model view of person-in-environment functioning. In more recent years, the effectiveness of behavioral psychology methods, supported by the claimed superiority of rigorous empirical studies, have received considerable promotion in the psychiatric literature as preferred practice methods for social workers (Thyer & Wodarski, 1990). Even the practice wisdom advocates of our profession, when dealing with hard-to-reach clients are often inclined to support the Malthusian and Spencerian interpretations of Newton's law of motion if they are consistently frustrated with the perceived inertia (resistance and laziness) of disenfranchised individuals, families or communities.

The deeper roots of physics, claiming it to be the base science for all other sciences, and the concomitant promotion of its mechanical paradigm can be traced to the ancient Greek philosophies of materialism and idealism. The beginnings of these philosophies are now traceable to the rise of male-god dominated religions, like Judaism and Christianity, that in turn have deep links to the domination and hierarchical order found in the ancient Hebrew tribes and their Semite ancestors, ruled by a caste of warrior-priests (Eisler, 1987). Western social work takes most of its worth and dignity value base from these religions, without due care given to the limited worldview of original order that the forerunners and subsequent authorities of these religions supported and used to discriminate, impoverish, subjugate and oppress the female half of humanity.

The moral certaintist beliefs found in the early charity organization forms of social casework can be traced to the 17th century Protestant Reformation (and Malthusian economics) which laid the groundwork for what at the time was the progressive ideology of capitalism, stressing the virtues of industry, individual attainment and condemning the sins of sloth, individual failure and poverty (Eisler, p. 162). These early forms of social casework stressed the importance of proper fact gathering so that help could be “given on the basis of verified need, based on verified misfortune and verified lack of resources” (Penman, 1989: 212).

The long held belief that all sciences - biology, psychology, physics, sociology, history, etc., and their associated professional disciplines - can be understood deterministically has been appropriately limited by exciting “new” science discoveries in this century. The challenge for social workers is to sufficiently familiarize themselves with these discoveries and begin the transformation of retooling their systems perspective and method models of practice to include appropriate information from these new sciences. In doing so, the profession should find itself much more closely aligned with developments in Eisler’s cultural transformation theory and placed in a stronger advocacy position to affect domestic and societal transformations from dominator models of living (perpetrators of chronic wars, social injustices and ecological imbalances) to partnership models (co-creators of peace, social justice and ecological balance).

Linkages to Neolithic cultures and the “New” Sciences

How we can transform the profession’s 19th century value foundations from the constraints of a dominator model of reality to a partnership model of reality will come with our increased knowledge and understanding of the advantages of cultural transformation theory and its scientific supports. Eisler has embarked on a lengthy action research reexamination of human sociocultural evolution from a gender-holistic perspective. Her theory proposes the likelihood of two basic models of society underlying the vast diversity of human cultures: a dominator model, popularly known as patriarchy, based on the ranking of one half of humanity over the other, the other is a partnership model based on a linking rather than a ranking principle that does not equate diversity with either inferiority or superiority. These two ways of describing the organization of human societies lead to two basic ways of structuring the relations between the female and male halves of humanity: androcracy - derived from the Greek root words *andros* (man) and *kratos* (rule) meaning man-ruled; and gylany - derived from the Greek root words *gyne* (woman), and from *andros* (man) and the letter *I* that stands for linking of both, which we interpret to mean man/woman linked-governance (Eisler, 1987: 105).

With support from the findings of post-World War II archaeological studies, Eisler’s work suggests that the earliest forms of structured human relations were gylanic (i.e. based on equality and partnership between the sexes) and worship of the “life- generating and nurturing powers of the universe.” Over many thousands of years covering Paleolithic and Neolithic times, the partnership model foundation of this structure was destroyed sometime between 5,000 and 7,000 years ago by the invasions of nomadic hordes from the Asiatic and European northern peripheries of society and replaced with an androcratic structure (i.e. a male supremacy model of human relations). The new androcratic structure, wherever it took hold, had several norms in common: male dominance, male violence, and domination hierarchies. These new forms of society were characterized by physical destruction, cultural regression and radical shifts in the direction of cultural evolution. The most noted change is an ideological shift wherein “the power to dominate and destroy... gradually supplants the view of power as capacity to support and nurture life” (p.53). In the simplest of terms, a catastrophic bifurcation (branch-like) turning point had occurred that transformed male brutality and insensitivity to the top of these domination hierarchy structures, leaving the female half of humanity relegated to the bottom as a male-dominated tool of production and reproduction. The last known vestige of a former gylanic society is what we now know as Minoan Crete and even it was destroyed by 1100

B.C.

Although our review of Eisler's work thus far is grossly over simplified, the impact should be staggering. She is revealing a previously unknown piece of human history that contradicts most of what current history and literature teaches. Her account of the beginnings of modern civilization as we know it today documents the entrenched stability of male-dominated androcracies. She cites many examples over the past 2,500 years where the shape of androcratic societies have been stretched due to a variety of gylanic shifts in the direction of greater equality between the sexes, but each time the power of the dominating hierarchy forces the emergence of new shapes in human relations back to their original androcratic form. Examples of these shifts include short-lived instances of Socratic advocacy of equal education for women and criticism of "might makes right" justice; the gylanic teachings of Christ that called for the primacy of "female virtues" - nonviolence, love thy neighbor and thy enemy, do unto others as we would have them do unto us; a new conscience of responsibility for others in the Elizabethan age; and the rise of feminism as a modern ideology in the women's liberation movement of the 19th century. These examples, of course, are greatly overshadowed by the persistent evidence of a society still guided by the rule-of-thumb doctrine of a violence-based androcracy.

The evolution of Christianity provides one of the most glaring examples of gylanic failure. By 200 A.D., "Christianity was well on its way to becoming precisely the kind of hierarchic and violence-based system Jesus had rebelled against" (Eisler, 1987:13 1). Equally disturbing examples of modern day extremes of androcratic rule are easily cited: Hitler's Germany, Franco's Spain, Idi Amin's Uganda, Khomeini's Iran, Ceausescu's Romania and now Hussein's Iraq. In North America, we have many examples of Rightist or neoandrocratic forces that stand firmly against equal rights, freedom of choice and exhort us to be "God-fearing" supporters of God's (and therefore man's) military might. Peace and disarmament that would nurture and protect all humanity, including women and children, has never been a ranked priority in the 180 or so male-dominated nation-states of the world.

The challenge to androcracy, for the most part, is fragmented and inconsistent. Only the firm supporters of gylany can make explicit the systemic connections between domestic violence in the form of male rape and wife beating and societal violence in the form of war. Advocates who understand and support feminism make these systemic connections. All social workers should be able to make these co-evolutionary connections, but many of us can't because of our value and practice foundations are still too firmly rooted to Cartesian influenced androcratic models of reality. So, how do we cast off androcratic constraints and replace the foundations of our profession with a philosophical shift to those that are more in line with gylanic structures? This is where support from the scientific discoveries of this century can help. Physics discovered the limits of its mechanical-dominated view of the universe almost one hundred years ago; other sciences have been slow to follow, but many have recently made important breakthrough findings.

The philosophical shift that we are asking social workers to make is one from Newtonian reductionism (part to whole perspectives) to 20th century holism (whole to part perspectives). The ability to comprehend a holistic perspective will accelerate as we acquire an awareness of the complementarity of chaos and order in the evolution of living, and nonliving systems. Human living systems in their sociocultural environments are the focal interest of social work. These systems differ from nonliving systems because of their self-creating (autopoietic) feedback capacity, which gives them a regenerative quality that mechanical systems do not have. The stopping and starting of nonliving systems requires external input; not so for living systems. Holism in living systems works from a whole to the part systems perspective, the opposite of mechanical reductionism. Science has also discovered that increased autonomy of a living organism couples it more tightly to its environment. This has led to the revelation that individuality is rooted in cooperation; a revelation

many hope will lead us “toward a new kind of holism - a holism which will resolve the apparent conflict between individual freedom and collective need” (Briggs & Peat, 1989:165).

Support of holism is popular rhetoric among social workers, but it is poorly understood and superficially applied in practice. Recent discoveries in physics, chemistry and fractal geometry provide holistic ways to integrate the subjective and objective, order and chaos, observer and observed, etc. without subjugating one to the other. Social work’s alliance with holistic systems perspectives can be strengthened and reinforced by adding the foundations of these new science discoveries to its knowledge base. Physics, as already mentioned, abandoned the Newtonian paradigm of mechanics almost one hundred years ago. Biology is beginning to recognize that it is not simply an extension of mechanical physics. The Darwinian mechanism of natural selection based on the Malthusian theory of limited supplies and competitive survival is being challenged with a more correct observation of inter/intra species cooperation and harmonious coexistence with their ecosystems (Augros & Stanciu, 1988).

Recent developments in the increasingly popular science of chaos and order (also known as nonequilibrium or far from equilibrium thermodynamics) (Prigogine & Stengers, 1985; Laszlo, 1987; Gleick, 1988; Briggs & Peat, 1989) provide us with a new scientific development stage for understanding the cultural transformations described by Eisler. We will try to make this clear to you by connecting Eisler’s androcratic and glynic models of reality with the models of reality inherent in three stages of scientific development (Loye & Eisler, 1987: 56). Although it may seem out of place for us to use a physical science reference, it is generally acknowledged, “traditionally what natural science opens up becomes the territory of social science” (Loye & Eisler, 1987: 56). Since the applied knowledge of social work draws heavily from the social sciences it seemed to us that advancement of our profession could be facilitated if social workers know the basics of what the natural sciences are discovering and embark on their own evaluation of the relevant merits of these findings.

Assuming that the specifics of the three scientific developments may be unfamiliar to many social workers, we have tried to simplify the connection between Eisler’s models and these developments with the aid of a map. Briggs and Peat (1989) are helpful in describing maps as “imaginative pictures which allow thought to bring into focus aspects of reality that might otherwise be lost in details” (3 1-32). Maps provide us with a visual way to explore the details of reality that would otherwise be too complicated to retain in our mind. We must remember though that a map is only a model of reality and not reality itself. We will describe three maps, which have what scientists call “attractors” that affect the dynamical states of a system. Each system state map features a different type of attractor.

The aforementioned dynamical states reflect the three stages of scientific development. The first two stages provide the necessary foundation to understand the dynamical science of Newton and his mechanical worldview. The process of change in these two stages was tracked in terms of “static attractors” or “periodic attractors.” The first stage, known as modern thermodynamics, dealt with steady or equilibrium states. In other words, stability and order were considered normative; change was abnormal, representing a condition of disequilibrium. Disequilibrium tended toward disintegration (entropy) and a state of ultimate equilibrium (random disorder) or inertia. Steady state equilibrium was a state of balance that protected systems from the dangers of disequilibrium and ultimate destruction. The second stage recognized the presence of an oscillating or periodic equilibrium, but it did not vary from the thermodynamic assumption that order and the basic mechanical condition of inertia were normative.

In a 1st stage system, static attractors would naturally pull the system state in the direction of ultimate equilibrium. A static attractor system works like a common pendulum that starts from a state of rest (inertia) and will eventually return to this state without some kind of external intervention to keep it

in motion (steady state equilibrium). In a human or social system context, the quality of life is almost totally dependent on a limited number of external forces (job, social support, status, etc.). The loss or withdrawal of these forces would seriously threaten the steady state health/social functioning of the system.

In a 2nd stage system, a periodic attractor would allow for some diversity, but hold the system within a regulated set of limits. A periodic attractor system works like a simple predator-prey system that supports an oscillating (homeostatic), but still steady state equilibrium between a fairly fixed set of limits or pattern of governance. The conditions for a steady state equilibrium are tightly regulated. In a human relations context, for example, a patriarchal marriage could break-up, transforming one or both partners into a static state existence or ultimate death; or the dominated spouse in trying to find a more flexible way of life is transformed by other factors (societal or personal values) back to patriarchal subjugation.

The third stage of scientific development, coming largely from 20th-century discoveries, is a major departure from the other two stages. For those familiar with this stage, it is commonly called nonequilibrium thermodynamics. In this stage, change and diversity are defined as normative; steady state stability by itself is considered deviant. Stability is no longer defined in steady state terms; instead it becomes a dynamical mix of order and chaos elements contained within a defined boundary. In a third stage system, strange attractors keep the system in perpetual motion, moving it back and forth between patterns of predictable order and transformations of unpredictable chaos triggered by bifurcation (branch-like) turning points. The system state is characterized by a far from equilibrium robustness (dynamical equilibrium) that can accommodate considerable variation and irregularity as a sign of its health and vitality. New discoveries in human physiology, for example, now show that chaotic robustness in bodily functioning signals health, whereas periodic or orderly behavior can foreshadow disease (Goldberger, Rigney & West, 1990). Although we have described these system maps separately, they can all exist in some form inside one another. In this respect, all three systems states can be present and active in the same human or social system.

The androcratic system of human relations described by Eisler easily fits the characteristics of a 1st stage or 2nd stage equilibrium system. A steady state ordered view of how the two halves of humanity should relate is maintained. Any deviation is quickly returned to the ordered norm. A regulated steady state would tolerate some variance and flexibility, but never enough to dramatically change the ordered view nature of how the two halves should relate to each other. In this system state, a high level of hierarchic regimentation tightly regulates the dynamical relationships between the two halves of humanity, which ultimately force any gylanic variations in the system back to its original shape. Even though the destructive features of androcracy are easily argued and becoming more and more observable, the male-dominator model in human societies has not only endured over the last three to four thousand years it has projected a false sense of strange attractor robustness, but only for men.

Eisler's gylanic model of reality connects best with the characteristics of a strange attractor system state. These states are deeply interconnected, dynamical, and versatile in the expanding direction of actualization hierarchies - systems within systems holons that evolve forward in the direction of more complex levels of functioning. This gylanic model connection with the 3rd stage system state is less strongly asserted in Eisler's own work. She sees the model as a peripheral attractor that will trigger a bifurcation point, transforming the relationship between the two halves of humanity from a static system state to a more flexible periodic system state. We think it can and must do more. The transformation must carry through to a far from equilibrium system state that more realistically reflects the dynamical nature of human complexity. Once achieved, the gylanic (partnership) model and strange attractor system state would become the normative state for all human societies to

regenerate and sustain in an expanding direction of co-evolutionary actualization. Although far more robust and healthy than a hierarchically regulated androcratic system state, gylanic system states, as they were in the past, will be vulnerable to at least three types of bifurcation turning points:

- a) activation of an entropic process that moves them back to the more controlled bounds of a periodic attractor state or worse still all the way to a Static system State and ultimate destruction;
- b) activation of a far from equilibrium amplification that overwhelms the system, putting it into a catastrophic process that needs to be dampened back to the dynamical thresholds of an already robust system or,
- c) a chaotic amplification that signals the need to move onward (transform) to a new gylanic system state.

Social work in our opinion is a gylanic-based discipline, currently trapped within the domination hierarchies of androcratic societies in the world, which is trying, along with other gylanic influences, to create enough stretch in the shape of these societies to start a bifurcation process that will fully transform them into 3rd stage dynamical system states. The profession's gylanic base is not as well rooted as it might be. We need to find new value and practice perspectives to support our foundational beliefs about the worth and dignity of all people and our commitment to work at the interface of person-in-environment ecosystems for individual and social justice improvements that would benefit all. If "peace" is accepted as a high level mind concept in present day society; war and armaments have been the low level physical manifestation of achieving peace through competition and dominance. For example, the enlightened children of our time are still calling their generation to "fight" for peace and social justice in the world. Social work has to step up its ability to change the physical manifestation of this calling to one of cooperation and partnership. Careful study of Eisler's Cultural Transformation theory is certainly one place for us to start. In addition to some of the insights that 3rd stage scientific developments can provide us, we need to thoroughly assess the new biological literature on living organisms - the Gala theory (Lovelock, 1987; Sahtouris, 1989; Allaby, 1989; Joseph, 1990) and the breakthrough findings in the fields of genetics, physics, paleontology, and animal behavior that find nature as cooperative, harmonious and not surviving according to the Darwin's "survival of the fittest" mechanisms. After we have examined these new findings and hopefully found ways to incorporate them into updated theories and practice actions, we still need to find a way to map all the components of our discipline onto a whole systems model (a common infrastructure) that will give us a holistic way to envision the dynamical nature of how we organize ourselves, advocate what we believe to be beneficial for both halves of humanity, and ethically do what we are trained to do with fellow human beings in their sociocultural settings. The next section of the paper will propose a model for your consideration that we hope addresses the design, the science and the professional shapes of our discipline.

New Conceptual Model for Social Work

Social workers have spent considerable time looking for a whole systems model of their profession that is both abstract enough to be globally generalizable and practical enough to be used at a local agency or individual practitioner level. The National Association of Social Workers (NASW) has played a major part in the developmental work of such a model over the last 35 years, beginning with the amalgamation of several specialty associations into one national association, followed by Bartlett's seminal work on a common base for the profession and the focused work of two conceptual framework committees in the late seventies and early eighties (Bartlett, 1970; NASW Special Issues, 1977 and 1981). The elusive search for a common conceptual framework (some say. it is impossible

to develop and a waste of any further intellectual investment) has been a major academic interest of one of the authors for at least the past ten years (Ramsay, 1985, 1987, 1988, 1989). This Section is a condensed overview of that work.

We begin with the use of a conceptual map to give you a whole picture view of social work in its simplest whole system form. In taking this step, we are following the advice of a highly respected British physicist:

It is often necessary to resort to the abstract... to make sense of the world. Ordinary experience cannot be a reliable guide (Davies, 1983).

A whole picture view represents the idea of undivided wholeness in its most comprehensive form - say the Universe - or the special case wholeness of a specific area of interest - say social work. To make any kind of sense of wholeness, the work of another physicist, David Bohm, models the need to make distinctions; parts of the whole are divided one from the other (Hayward, 1984: 178). Wholeness represents implicate order, the idea that everything is enfolded into everything. Explicate order is achieved by unfolding or dividing a map of the whole until we reach a section that lies in its own distinct region, divided from all other outside sections. The concept of a bounded whole system is used as the dividing instrument, which like the skin of living organisms distinguishes an outside from and inside (Hayward, 1984:29). We will use this whole system instrument to unfold an infrastructure model for mapping social work from its simplest whole system form to any of its numerous multidimensional forms. A flat projection circle is used to depict the system boundary. In this paper, we will limit our focus to the system - the circle - of social work. A whole system instrument is known to divide any system in three ways: the system itself (i.e. social work), everything inside the system (i.e. all the parts of social work) and everything outside the system (i.e. all that is non-social work) (Fuller, 1975). In this way, a whole systems model can be unfolded into an ever increasing number of partialized and complex parts without losing sight of its simplest whole picture form, or it can enfold back into increased fuzziness and eventual undivided wholeness, possibly too abstract to be of much practical value.

We can now construct the whole system instrument that will give us the ability to unfold or enfold a model of any system to a desired level of simplicity or complexity. From a geometric perspective, if you take a point (1 of something), a line (2 points connected), a triangle (3 points angularly connected) or a tetrahedron (4 points triangularly connected), all could represent system stability in some form, but only the tetrahedron structure meets the criteria required to represent whole system stability in its simplest form. A tetrahedral structure can be constructed by taking two triangle forms, opening their boundaries at one of the angles and rearranging the lines and angles in a way that allows them to slide together to form a unified whole system that now has a four triangle form. See Figure 1.

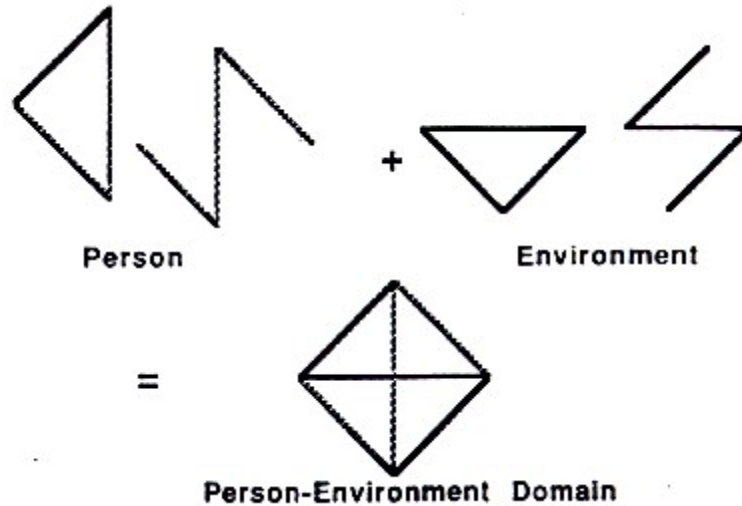


Figure 1

In its 2-dimensional plane projection form it would look like a large triangle with four equal size triangles inside the triangle boundary. In its 3-dimensional form the whole system would look like a triangle-based pyramid. When we insert this structural form inside the system circle, we have created a whole system model which has structural stability and a defined boundary. In addition, we now have a dividing instrument that can be used to depict a system in a wide variety of whole system arrangements. See Figure 2.

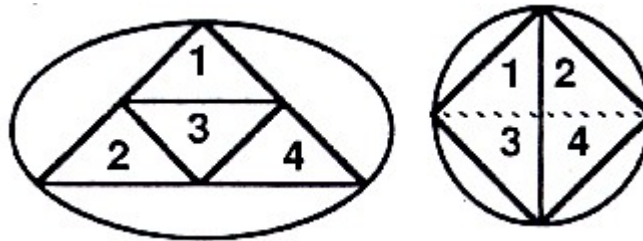


Figure 2

The value of using the tetrahedral form as a dividing instrument is found in the many works of Buckminster Fuller (1969, 1975, 1979, 1982), who was one of the first to discover the likelihood of this structural form being the basic coordinate system of all whole system structures in Nature. Nature's use of this structural form raises the possibility that a whole systems model constructed from a tetrahedral structure could serve as a common denominator infrastructure that under girds all scientific and professional disciplines.

Once a whole systems model is constructed it can be used to provide the viewer with a visual picture of a well-known systems perspective: the whole (the circle) is greater than the sum of its parts (the four faces of a flat projection tetrahedron) inside the circle boundary. In addition, we can see that the model has an outside shape (circular) and an internal infrastructure (tetrahedral). Next, we take the universal symbol of infinity (a somewhat flattened figure-eight), place it inside the circle and visualize a point continuously moving round and round on a figure-eight pathway, but never returning to its exact starting point. We now have a whole systems model that symbolically represents the

infinite possibilities inside the finite boundaries of a system, supported by a stable infrastructure. If we return to the system boundary for a moment and reshape the circle a bit so that it has an amoeba-like form, we can imagine a model that qualitatively speaking has a constantly changing (robust) outward shape coexisting with its more orderly infrastructure. Being able to model the shape or topology of systems in a dynamical state should help our profession eventually make use of the mathematics of the new science of fractal geometry to measure the quality-of-life diversity of all kinds of individual or human social systems.

To make sure the model depicts dynamical relationships between all of its parts, the four triangle faces representing the internal structure can be spread apart to depict a structural pattern of wavy lines interconnected to a network of four parts. There is a formula, $R = (N^2 - N)/2$, that tells you the minimum number of interconnected relationships between any known number of parts (Fuller, 1969). In its simplest whole system *form*, requiring four connecting parts, the minimum number of relationships between the four parts of whole system model will be six. Finally, we can show how the basic model can be progressively unfolded into multiple levels of complexity by taking any or all of the four faces and subdividing them at their midpoints. In this way, we can construct a highly complex and detailed map to depict the far from equilibrium interconnectedness and diversity of all its parts without losing sight of the forest (i.e. the whole) for the trees (i.e. the parts). The advantage of this model for social work lies in the fact that the whole picture of what social workers do can be depicted anywhere on the continuum from its simplest level of divided wholeness (four basic components) to infinite levels of detailed and unfolded robustness (n number of elements). We now have the outline of a whole system model that can be used to map the essential features of a 3rd stage systems perspective model for social work. A map of this kind also may help us understand the “whole to part” meaning of the term synergy and a connected meaning that shows how if we know something about the behavior of the whole and special knowledge of some of its parts we can more easily figure out what we need to know or what to find out about the unknown parts. In addition, the model gives us a whole picture opportunity to focus attention on the dynamical relationships interconnecting all the parts as well as on the parts themselves.

Now, the whole systems model can be used to construct a special case model of the common components in the discipline of social work. Once constructed it should provide social workers with a comprehensive map to allocate and locate all the known details required in the practice of social work, and at the same time never close the door to the possibility of more knowledge becoming known or current knowledge becoming dated or redundant.

To begin, the social work circle, in its smooth or amoeba-like *form*, can represent the global or geocontext shape of our profession and the internal tetrahedral structure represents the fact that the geocontext of social work can be unfolded into a minimum four part context. We suggest that these context parts might easily be the following: spiritual, geographical, political and societal. The societal face can then be unfolded or “detailed-in” (as the architects would say) until we locate the place of social welfare in a particular society. This face then can be subdivided until we find the face of social work, the discipline most likely to be involved in the delivery of social welfare services. The other contextual faces can be detailed-in until we get the local context of our choosing - the geographic location, religious beliefs, political system(s) that most directly influence the practice of social work, as we know it.

Looking specifically at the undivided wholeness of social work it too can be conceptually unfolded into a simple whole system four part foundation. The four components can be whatever consensus any defined group of social workers reach about the common base character of their profession. Based on an accumulation of views in social work literature and the literature that addresses basic questions about what constitutes science, we have proposed the four components to be: a) domain of

practice, b) paradigm of the profession, c) domain of the practitioner and d) method(s) of practice. See Figure 3.

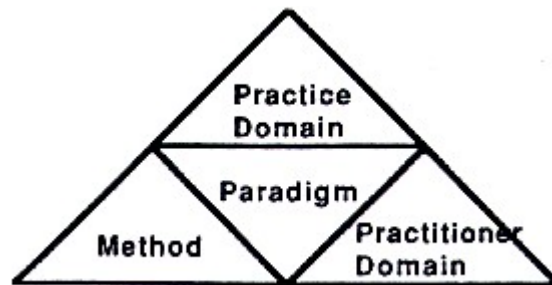


Figure 3

By choosing domain as one of the components, we are accepting the views found in literature that anything can be defined as a science providing it has a domain that helps distinguish between types of science by defining the subject area to be studied, and has applied methods of inquiry/intervention in which the findings can be experientially tested (Wilber, 1984).

In the first component, the domain of practice depicts the traditional person-in- environment territory that social workers claim to represent the holistic scope of where they apply helping professional methods to serve and advocate for the social welfare of others. Being even more specific, the profession has declared that within this person-in- environment domain its primary focus of attention is on the interconnective patterns between different groupings of people and the multiple parts that make up their particular environment. Many adherents of the profession support this primary interconnectivity focus that no other helping profession has claimed as the primary focus of its domain. New scientific support for the appropriateness of this interconnection focus in a person-in- environment domain is found in the literature citing the fact that the property or characteristics of something belongs to the relationships between parts of the system, not the parts themselves (Zukav, 1978).

The second component addresses the need for an enduring group of adherents to coalesce around a common view of a defined domain of practice and to establish particular modes of professional activity. Activities that meet these characteristics Kuhn (1970) called “paradigms.” Social work like any other mode of scientific endeavor or professional activity needs a common paradigm component to minimize disagreements among those who learn the basics of their discipline in the context of different cultures, varied interpretations of the discipline’s body of knowledge and multiple intervention approaches. We have introduced the concept “design” to the science-profession paradigm of social work to explicitly recognize the value-laden nature of the discipline. Design scientists try to integrate the art and science of a discipline; they believe that relationships between people and their environments are ever improvable and they take a position on the desired shape of things (Gabel, 1979; Kappraff, 1991). Social workers, for example, believe that the shape of all human societies should be guided by values that protect the intrinsic worth of individuals and obligate human societies, individually and collectively, to the social responsibility of making opportunities, services and resources equitably available to all members.

Domain in the third component is used to acknowledge that social workers, like the people they work with, have their own person-in-environment territory, personally and professionally, that affects how they perceive the domain of their clients and how they apply their methods of intervention. Because

social workers identify themselves as their own primary “instrument of change” it’s deemed essential for them to constantly monitor and evaluate the shape of their personal/professional domain and the sharpness of their helping skills. Likewise, employers of social workers need to include this component as part of their map of social work in order to recognize the special care and nurturing these instruments of change require if we are to maintain practice standards at an acceptable standard of care level.

The fourth component addresses the need for a component to represent the systematic methods or conduits used by professional practitioners to put their knowledge, values, and skills into action. Whereas the other components are displayed in systemic format that provides a framework for mapping detailed information about the many varied parts of a system, the method component is displayed in a systematic format to depict the phase cycles that the social worker and domain of the client must process their way through.

The core component faces of the model can be rearranged to show how the systemic components interlock with each other at single bond points, but continue to travel on their own elliptical pathways. The systematic method component can be transformed into a minimum three or four phase cycle form. See Figure 4.

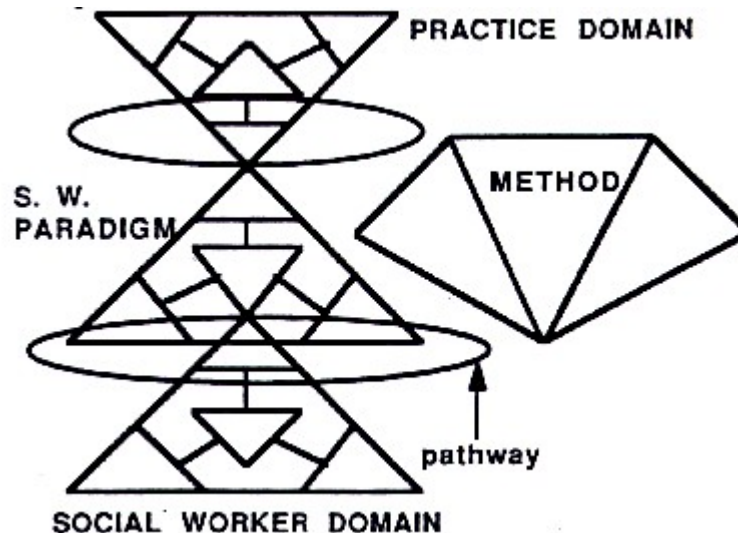


Figure 4

Each component can be unfolded into its basic four subparts, separated to show the inter-connective links and displayed to depict how they can come together and move through the method component on role-guided pathways. The progressive unfolding can continue to whatever detailed level of complexity (breadth and depth) is desired or necessary to guide the type of social work that is being practised in a defined context. We offer a brief overview of what the next level of detail in the model might include.

Domain of Practice

Social work’s domain exists on a human society level as opposed to biological or physical levels. Society is defined as a system made up of human beings in specific relations that have environments that are both social and natural (Laszlo, 1987: 88-89). The basic four faces of social work’s traditional person-in-environment area of practice are described in a psychosocial scenario of self and otherness. Otherness is assumed to be a necessary condition, thing or person part of one’s environment for any

living organism to be alive. Without otherness (a contextual environment) there can be no awareness; without awareness there can be no life of communication between interconnected parts. Self is the person or human society face of our practice domain and environment minimally consists of three otherness faces: validator otherness, resource otherness and personal otherness. The person face can be a single individual or individuals in couple, family, group, community or nation relations. The otherness parts can be described as follows:

Validator otherness - this element can be detailed-in to identify all the proper and relative norms - expressed as values, beliefs, ideals, customs, traditions, laws, policies, etc. - that a society or individual uses to interpret itself. These interpretations serve as governance and cultural guides and/or constraints to regulate, control, socialize or otherwise affect the qualitative shape of a defined person-in-environment system. Proper validators are typically centralized in the form of dominant ideologies, revealed truths, constitutional laws, cultural customs, etc. and considered to be invariant or unmodifiable “truths” about the world around them. Relative validators are more typically decentralized and tolerant of differences.

Personal otherness - this face represents the personal social support relations that usually are defined as intimately close or significant other to an individual or family, but also to a group, community or even a nation.

Resource otherness - this is an extensive element that represents all of the other opportunities, resources, goods and services of a political, social, spiritual, geographical or economic kind that can sustain, enhance or impede the structural strength of a system or affect its qualitative shape.

Depending on the detail required at each level, subdividing can be expanded to include greater breadth of detail or shifted to a different level (s) for increased depth. Whatever is decided, this method of mapping the domain of practice allows for an infinite variation of breadth and depth combinations. Regardless of the detail entailed in the mapping, the eventual objective is to assess the sustainability of the system. If the human members are in harmonious relations and synchronized with their environment the identified domain is dynamically sustainable. If, on the other hand, it cannot sustain the parts in a mutually satisfactory set of relations or replenish and repair flaws satisfactorily it is likely at a point of bifurcation - transformation from one attractor system to another in either a downward or expanding arrow of time direction.

Paradigm of the Profession

This component provides a representational form to implement Rein and White’s (1981) claim that social workers should have the ability to “enlarge the notion of context to include not only the client’s situation [in a person-in-environment domain] but the agency itself and more broadly, the institutional setting of practice [in a professional paradigm framework].” It also allows a broadview map to accommodate the association and presence of various specialist and generalist groups within the profession. Those in specialist practices have a narrow practice base with little differentiation or diversity making them highly vulnerable to changes in their environment. Generalist practitioners, on the other hand, have a broader base that makes it easier for them to adapt to a wider range of environmental changes without the risk of becoming redundant. The basic parts of this component are adapted from the work of Pincus and Minahan (1973): change agent system, client system, action system and target system. Their four part model of practice, as you know doubt recall, was developed from criteria that social work must recognize and work with the connections between dichotomous methods, develop and maintain relationships with a wide variety of people, work with different sizes and types of systems, not rely on one theoretical, orientation, and be able to transform theory into practical applications (vi-viii). In this component, the client system, for example, can unfold into

traditional social work categories: size, field, target population or social problem. Size can subdivide to individual, family, group, community. Field can unfold into child welfare, school social work, family services, corrections, medical, health care, etc; target population into children, youth, families, elderly, disabled, delinquents, minorities, and social problem into poverty, housing, social security, and so on. Other elements, like the change agent system, can unfold into service provision, management, support services, policy-making, for example. Policy-making could be further divided into board, government, profession and funder units all of whom influence the management of the identified change agent system and its professional service providers.

Domain of the Practitioner

Social workers like the people they work with have their own person-in- environment domains (i.e. belong to their own types of human societies) that affect how they conduct themselves professionally and personally. At the professional level, they are expected to ingest the relevant codes of professional conduct that apply to their practice activities and adhere to their standard of care tenets at all times. As “instruments of change” they are expected to vigilantly monitor and evaluate their competence to serve others. At the personal level, they are guided by patterns of validator otherness, personal otherness, and resource otherness that affects how they will carry out their professional practice obligations, functions and roles. It is just as important for the professional to detail-in and carefully examine the specifics of these domains as it is to do the same at the domain of practice level for a client.

Method of Practice

This component deals with the important issue of whether any form of social work intervention is warranted in the psychosocial evolution of a human society (our domain of practice). Should members of the discipline try to steer the evolution toward a preferred design or shape? Our profession has always answered yes to this question and there is support for both social work and other forms of interventive action in the evolution of human society (Laszlo, 1987). At the same time practitioners are constrained by special instrumental values to protect against their intervention efforts from becoming manipulative and controlling. Because this component represents the process that ought to happen, guided by the method of treatment/intervention selected, method maps have to be displayed systematically instead of the systemic way that the other three component maps are presented. To do this, the top face of the basic tetrahedral structure is flipped forward onto the face below it or flipped down onto one end or the other of the row of faces below it. The result is a minimum three phase or four phase method framework. The phases can be extended to include as many as a particular method calls for, with the assumption that nothing less than a 3-phase whole system model is possible. Each phase can be subdivided to identify a minimum of two tasks per phase: one with a broad base focus; the other a honed-in focus. Methods of intervention can be selected that are designed to purposively steer the process in a preferred direction through the method framework, but each selection must be carefully monitored and evaluated to make sure the basic phase cycle requirements of the systematic process are being met and that the foundational principles of the profession are not being violated.

Conclusion

Now we can take some time to refer back to earlier parts of our presentation to determine how well they integrate with the foundational components of social work. Eisler’s work, for example, can be examined from two perspectives. We could test the extent to which her theory explaining androcratic and gylanic structures is grounded in social work. Or conversely, we could detail-in each of the core components of social work with a special emphasis on the pool of information that governs and culturally guides the profession and then assess the degree of androcracy or gylanicness characterized in the structure of each component. On a specific case base, similar mapping and assessing process could take place.

We could also use the conceptual model to examine the relevance of the three scientific development stages with social work and to see what kind of attractor system states are present in specific case examples mapped across the core component parts of the model. This exercise would help us determine the dynamical character of the system - static and deteriorating; periodic and narrowly regulated; chaotic and robust; chaotic and catastrophic. The dynamical state determination would guide the possible type of intervention required - crisis intervention, mutual-aid, consciousness raising, community development, preventive education, protective support/social control, transformation encouragement, and so on. These determinations would guide the practitioner in the recommendation or selection of a particular theory and corresponding mode of intervention.

In the area of social work education, we could examine both the core and elective units of any given curriculum - human growth and behavior, administration, research, social policy, practice methods and field education - to assess whether the content and foundational premises of courses under these headings fit the desired gylanic character of the profession. In addition, the particulars of a course assignment in research, for example, could be aided by plotting all the known and unknowns about a given area of practice on the component maps and then determining whether research would focus on learning more about its shape (requiring a qualitative design) or on some relationship characteristic - association, correlation, causal - between identified independent and dependent parts (requiring a quantitative design), or simply seek more knowledgeable information about system characteristics (requiring a survey design). The conceptual framework could be used as a guide to examine the curriculum in general or specified course offerings in search of gylanic features operating dynamically in a chaotic attractor state.

How do we bring our case for social work to begin the process of re-aligning its traditional foundations to a dynamical partnership model of reality to a close? Since we have relied quite heavily on references to 20th-century discoveries thus far, we will use yet another to conclude our position that the time has come for a transformational change in the models that have guided social work for most of its history. Picture in you mind the fact that over 200 years ago, Laplace, the French mathematician and astronomer, clearly articulated our old view of universe. He pictured the universe as completely determinable - everything could be precisely determined from the laws of cause and effect (Peitgen & Richter, 1986: 175-180). In such a world there would be no freedom and chance; and in the same sense there would in fact be no place for democracy and diversity of life systems to exist in human societies. Pictured this way, it would be hard to imagine any social worker, past or present, willing to endorse this worldview as a philosophical foundation for the profession.

In fairness, science, even though accused otherwise, has never been completely wedded to Laplace's theory of exactness. Even the staunchest advocates of the classical scientific method acknowledge the presence of minute imprecision, at least in principle. Modern science works from the assumption that approximately the same causes produce approximately the same effects over time. This is often the case especially for limited time periods; otherwise natural laws of any kind could not be discovered and functioning machines or structures could not be built. The point for social workers to realize, even more fully than they have up to now, is that the scientific discoveries of this century have proven this approximate cause-effect assumption not to be universally true. Fractal geometry, mentioned earlier and a part of the fairly recent science of dynamical systems, has shown that tiny deviations at the beginning of a process can produce large differences at later times. This finding we believe to be of major importance to a profession like ours that relies on problem-solving processes and the sensitive intrusion of "human otherness" into other people's dynamical life systems. The care that social workers take to "start where the client is at" suggests that we have always intuitively known tiny deviations in the way relationships begin can trigger enormous effects (positive or negative) over time. Common sense knowledge and everyday observations continue to support the

truth of this assumption. Dynamical systems science tells us this is typical of natural processes. In this respect, dynamical systems discoveries in the past 20 years have refuted both the crude determinism of traditional science and the exact determinism of Laplace, reinforcing earlier discoveries in physics during the first two decades of this century. The existence of chance and freedom are present, “causing” chaos and order to appear in harmonious balance. This mixture of chaos and order is not only fascinating and beautiful in natural forms (the swirling beauty of evening storm clouds, for example), it is typical of natural processes. Goodness-of-fit is not found in the total regularity of an architecturally perfect skyscraper nor in the rule-based order of a modern bureaucracy or centralized democracy. Goodness-of-fit is the harmonious fit (aesthetic beauty) found in nature - clouds, trees, crystals, snowflakes. In human social systems, likewise, health of all kinds is not total regularity; total regularity is pathological. Health is a dynamical balance of orderly chaos which has no exact cause, but is subject to minor iterations and external intrusions that many produce/cause huge variations at some later point in the life cycle of living organisms.

Dynamical systems science, which includes Eisler’s partnership model of reality and our proposed whole systems model of practice, is the kind of science that can integrate the art and science dichotomies in social work. In short, we believe that a realignment of social work’s traditional foundations with the models outlined in this paper will ground the profession to a dynamical systems science base and help us fully integrate the intuitive wisdom and empirical science aspects of our profession. Dynamical systems science will help us integrate the free choice/self-determination and social responsibility values inherent in a partnership model of reality into a harmonious balance that will support our call for a greater co-evolutionary coupling of global commitment and indigenous practices.

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