
THE BACK STORY ON DEVELOPING THE CONCEPT OF DIFFERENTIATION, AS SEEN IN THE MURRAY BOWEN ARCHIVES

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This article describes Dr. Murray Bowen's original research from which the concept of differentiation of self emerged. Bowen's extension of the concept ultimately developed into the science of human behavior now known as Bowen theory. The descriptions here are taken from materials in the Bowen archives at the National Library of Medicine and from the Bowen family materials in Williamsburg, Virginia. Late in his life, when Bowen was drafting his 1988 epilogue "An Odyssey Toward Science" for the book Family Evaluation, he did a thorough review of the earliest periods of the development of his theory. These notes, along with his papers going back fifty years, are now in the archival collection at the National Library of Medicine. Bowen's review, coupled with the actual works from that time, offers a solid opportunity to document his path toward a theory that would extend Freudian theory to integrate more closely with breakthroughs in other sciences. While he maintained a respect for Freud's efforts, when the data supported an alternative theory, Bowen went with the data. This article describes this process, especially with regard to the origin of his concept of differentiation of self, and illuminates the value of the Bowen archives for understanding how the theory originated.¹

Keywords: anaclitic, differentiation, emotional system, families, Freudian theory, human behavior, Menninger, regression method, research approach, residency, theory development, transference

¹Editor's note: Quotations from Bowen's letters and notes appear in this article unedited to preserve the integrity of his original writings.

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INTRODUCTION

Murray Bowen credited his interest in “basic theory... back to WWII” (Bowen 1988b). He was looking for a “science-based” theory to understand the human mind (Kerr and Bowen 1988, 347). In the mid-1940s there was no widely held theory comparable to that of Sigmund Freud’s for understanding the human psyche.

In January 1946, two months after being discharged from military service, the thirty-two-year-old Murray Bowen began a residency at the just-opened Menninger School of Psychiatry in Topeka, Kansas (Bowen 1947a). The Menninger psychiatric hospital was innovative in applying Freudian theory to in-patients, and Dr. Norman Brill, Bowen’s superior at Fort Bragg, was a close colleague of Dr. William Menninger, Chief Consultant to the Army Surgeon General (Menninger 2004, 279). Brill was instrumental in Bowen considering Menninger’s new school for his residency.

Upon arrival at Menninger, it surprised Bowen to read a report questioning whether Freudian theory was or was not scientific (Kerr and Bowen 1988, 345). Bowen became interested in critically evaluating Freud’s work. He did not start out to discover an alternative theory. Instead, he started out to explore this question and to satisfy his curiosity, and perhaps offer something to the larger field of psychiatry. The values of Drs. William and Karl Menninger and their approach to a hospital milieu proved an excellent fit. For Bowen, the Menninger setting provided a welcome opportunity for his questions about Freudian theory and science. How factual was Freudian theory? If not factual, what were the facts to make it so? Starting with an open mind and his innate curiosity he

... began in January 1946 [to see]... if Freud was close to Science, [and thus] it might not require too much to help move the entire field toward science. The goal was to help raise the status of Freud’s theory to that of the accepted sciences... The long-term future of psychiatry would be more secure if viewed as a science rather than another theoretical explanation.... (Bowen n.d.a)

What first caught his attention were the exceptions to basic tenets of Freudian theory that he came upon in his coursework

and clinical practice. There were gaps in the theory. Psychiatry had plenty of examples of problems due to negative life experiences, yet Bowen encountered many people who had these experiences and were “normal.” Likewise, sometimes a family with an impaired child raised siblings with no symptoms. Early in his work, Bowen saw a schizophrenic patient whose parents were both professionals—father a psychoanalyst and mother a psychologist—and still, the child had severe impairment. It seemed logical that these people should know how to raise a child without such complications (Bowen 1986a). By 1948, his final year of residency, he noted that the progress notes written by residents or psychiatrists working with long-term patients often indicated improvement, even though the person remained hospitalized for years. Bowen’s review of these clinical records found that the notes were often more subjective than objective, and the qualities in the relationship between the clinicians and the patients determined the tone of the notes (Bowen n.d.b).

Bowen’s residency, 1946 through 1948, was marked by his determination to add to Freud’s work by further developing a scientific theory about the human. As he immersed himself in psychoanalytic coursework and treatment efforts, he took time to examine a wide range of ideas, identifying the basic assumptions in Freudian theory, questioning these assumptions with his instructors and, especially, doing “in vivo” exploration. When the answers his teachers gave did not satisfy him, he turned directly to patients. What could he learn from them, their families, and family interaction? That was his laboratory.

BOWEN’S QUEST FOR KNOWLEDGE

Bowen had a personal principle for managing himself within the Menninger organization: “Don’t complain, don’t adapt, assess, consider options, make [my] own decisions” (Bowen 1986a). He clearly intended to follow his own path while learning as much as he could about Freudian theory. This principle will be seen in Bowen’s actions throughout this narrative.

Bowen describes three means to get clearer in his own thinking about how to move toward a science-based

understanding of human behavior: questioning his instructors, searching the literature,² and exploring assumptions with clinical practice. He took his questions to his teachers and was told he needed to be more expert at Freudian theory. Gathering a coherent history of Bowen's efforts at this time requires searching his later writings. Reflecting on this time, he says,

Teachers and experts could not answer my questions about this [what is needed for psychiatry to be a science, for the human to be scientific] in the 1940s. (Bowen 1982)

Motivated by the gaps in psychoanalytic ideas, he turned to a literature search (Kerr and Bowen 1988, 345). He found this effort to be very satisfying, joining the Menninger library committee in 1947 and even becoming the one selecting books for the committee's list of readings (Bowen 1987b). His engagement with the library committee ultimately became a gift to the world. His literature review began in the physical and natural sciences, in social sciences, and in subjective, interpretative areas that would include philosophy and religion to understand how other disciplines handled facts (Bowen 1955d). Frederick Grinnell, in his book *Everyday Practice of Science*, describes this process:

Each researcher... initiates work in the context of prevailing experiences and beliefs.... We assume that this previous knowledge is incomplete or to some degree incorrect.... What we aim for is new-search rather than re-search... discovery at the frontier of knowledge, a place where no one has been before. (Grinnell 2009, 14)

In Bowen's "new-search," he considered it possible to comprehend the human as a scientific being. His orientation to this view emerged through readings in evolution, biology, ethology, and other related subjects. He determined that the scientific discipline with the most facts about the natural world

²A literature search is a method Bowen used consistently throughout his lifetime. Its importance can be seen in his later work on regression, finding support for his observations and definitions for the new concepts he developed. In his NIMH project in the 1950s, described later, staff were to search the literature whenever anything was observed that did not fit with the operating hypothesis [Bowen 1979a].

was evolution, which had developed a systems theory (Bowen 1984). Through this extensive review, a fundamental, preliminary understanding came to Bowen:

The notion that emotional illness is related to that part of the human he shares with the lower forms of life.... This idea so radical at the time, it was impossible for me to comprehend. (Bowen 1977a)

Unlike conventional (Freudian) theory, which designated humans as unique from anything that ever lived, Bowen's readings oriented him to humans as an evolutionary extension of the lower animal forms (Bowen 1977b). This important nodal point, that humans are more similar to than different from other animals, remained a latent part of his emerging theory for ten years. But *latent* does not mean it did not have an influence on his thoughts and observations. It means that it needed further confirmation. Bowen's grounding of this idea in facts would take time, and his modified applications of Freudian theory assisted his search.

Transference, Schizophrenia, and Mothers

Other simultaneous criticisms of Freud's theory in the wider scientific community gave Bowen an opportunity, and the challenge to validate the concepts appealed to him. For example, some of the first evidence of illness linked to early life parent/child relations came from Freud's study of two-person relationships. The automatic transfer of early patterns of relating to later life relationships was deemed "transference" in the analyst-patient relationship. Resolving a transference was the bread and butter of psychoanalytic treatment (*Encyclopedia.com* 2020), but Bowen was unconvinced. In deciding to work with the most extreme examples, the sickest people, Bowen thought it would be easier to discern important points in trying to form transferences with them (Bowen 1988a).

Bowen's work was based on a then-current belief in psychiatry that severely impaired patients could not form a transference and that they could not resolve a transference either. Supportive therapy was the primary choice. Bowen did not take it as fact that forming transferences was impossible for this group and acted to check this belief for accuracy.

The assumption about severely impaired people's inability to verbalize their issues was an opportunity for Bowen to question that inability as a developmental issue:

In the 1940s, the profession used a strict interpretation of Freudian theory. Important life forces were determined by infantile memories carefully hidden (unconscious) from conscious memory. A "cure" was possible when these inner secrets could slowly be remembered with an understanding listener.... Impaired patients could not free associate (talk freely) to slowly remember the unconscious.... This meant the theory was right but treatment was not.... (Bowen, 1988a)

In Bowen's examination of common assumptions in Freudian theory, he found that most were based on the perceptions of the mother-child relationship. This was a time when the phrase "schizophrenogenic mother" came into use (Fromm-Reichmann 1948). A prevailing view was that the quality or lack of mothering attention in early life created an ego deficit in the child. Then the child did not mature psychologically as the result of this unconscious rejection by the mother. A developmental phase of separation had been missed. Psychoanalytic treatment could offer a corrective emotional experience to this early deficit.

Bowen's approach was to examine such tenets to understand for himself whether they made sense. He believed that a parent as the *sole* causative agent was contrary to nature (Bowen, 1978, 148). But one assumption Bowen found tenable, through his own explorations, was that the parent/offspring relationship is important and that early events between parent and child shape later relationships.

Interest in Families

Anyone who studies a particular field begins with where they are and who they are. Working at Menninger, Bowen considered families more directly than others did. Within a year of starting his residency, Bowen began research based on his own questions about human problems. He explored the

possibility of seeing patients and families together during treatment. Starting this research so early in his residency suggests that perhaps Bowen had arrived at Menninger oriented to family. The archival materials document that, indeed, early on he questioned the practice of excluding families from the treatment program.

About 1 year after I became a psychiatrist (1946) I began my first efforts at seeing patients and family together. This was a setting which respected the sanctity of the therapist-patient relationship and the “family” effort was “smuggled under the counter.” It was done in evenings and on Sunday, and when the supervisor was not supervising closely. Since no one knew what to do with schizophrenia, there was a little more latitude in trying novel approaches, and some of this was “in the open.” (Bowen 1966b)

Bowen’s curiosity about how psychiatry dealt with the family led to devising a way to make quality care available for families without direct face-to-face therapy sessions. He used phone calls and letters as consultation methods. As early as 1946 he sent regular mailings to families detailing how their family member was doing, thus providing families with information about the course of treatment with the hospitalized family member and how that was going (Bowen 1959b). What Bowen was doing was opening the hospital environment to the family, providing information to those who care the most about their hospitalized family member. By his actions, Bowen placed a high value on the family as a resource.

Bowen’s alternative ways of approaching families through direct correspondence allowed interactions between Bowen, the family, and the patient. The patient would report back to Bowen, telling him how the family received the letter. Families would report back to Bowen about the discussion regarding the letter with the family member. Bowen learned how the report of family interaction from the patient differed from the

report of a family member to him, providing him insight on the variance between family perception and family experience.

Within psychoanalysis, it was thought that a clinician should not meet with family members as the meeting could contaminate the patient/therapist relationship. Facts did not support this as Bowen's meetings with family members, in reality, led to a deeper understanding of that relationship. Bowen observed that a family, given support, had within it the strength to interact with an impaired family member. He included families in his thinking and actions. By January 1947 Bowen had begun using a family diagram as a tool to understand a nuclear family. It is the same format—squares for males and circles for females—as is used today (Bowen 1947c). While it began as a convenient way to represent nodal events in a family, the use of the family diagram developed. Ten years later at the National Institute of Mental Health (NIMH), the family diagram was a substantive tool representing emotional process in the family over time.

Bowen arranged for family members to consult with one or more social workers for the purpose of building more strength in the family. A patient had individual psychotherapy, and now parents and other close relatives had a social worker for support (Bowen, 1956, 1). While this was a practice in child psychotherapy, here it served as a forerunner of family psychotherapy by being conducted with adult children.

In contrast to worry about contamination of the doctor-patient relationship, "[r]elatives' visits were prescribed as part of the treatment program" (Bowen 1957a). Bowen found patients did better when their families were involved.

Midway through his residency, Bowen wrote about his observations about similarities in all people. These ideas supported his growing faith in the strength of families and belief that the family had something to offer psychiatry, and he was willing to say it publicly. In a presentation to a local country club, he spoke about mental unsoundness as something found up and down the levels of society whether it had to do with personal problems such as psychosis, character disorders, juvenile problems, marriage issues on to societal relations. He noted that "It is within the family that the most preventive work can be done" (Bowen 1947b, 10).

As early as 1947, Bowen was exploring marital pairs as a subset of the family. Any family subset provides material for thinking about the family as a whole. Bowen was already thinking and writing about marriage partners choosing each other because of particular emotional responses, as well as writing about the value of objectivity, and a family projection process. He noted that the emotional maturity of spouses is a match as choosing a life partner is related to a familiarity in psychological needs. He suggested practicing objectivity as a way of making less emotional choices and used the term “uncommon sense” to describe this. And, in an insight into family projection process, he says:

More dangerous to our children are the things in our parents of which we disapproved. You were hurt by something, and you over react by saying, ‘This terrible thing will never happen to my children’ and we thus impart to our children the product of our own emotional struggles.... (Bowen 1947b, 4-12)

In his final residency year, 1948, Bowen spoke to the local Rotary Club. He presented his rudimentary ideas of a scale of differentiation of self and a variety of human problems found in all people. This reflects the first meaning of “differentiation,” that there is a similarity in the basic operating process of humans but wide variation among people in their functioning. Again, was this based on the Freudian theory he was learning in his residency? He spoke using “we,” which might show agreement with other residents, or it might show agreement with the public efforts of the Menninger brothers at the time to raise the standard of care for the mentally ill. There is an opportunity here for a researcher to explore the influence of the Menninger residency program on Bowen’s thinking. At the Menninger clinic, they considered symptoms restitutive, an adaptive effort to restore balance (Bowen n.d.c). As a baseline for Bowen’s thinking about this early in his career, the presentation to the Rotary Club shows an orientation to the research needed to check these ideas for scientific accuracy. Bowen’s ideas in this presentation confirm that he considered there are only degrees of differences from those with diagnoses

and those without, just “merely different manifestations of the same basic personality struggle,” and this extends to societal problems as well.” (Bowen 1948, 1)

Psychoanalytical Marital Therapy

After completing his residency and joining the staff at Menninger in 1949, Bowen became the psychiatric consultant to the marriage counseling services at the Menninger clinic:

I was the liaison person between the psychiatrists and marriage counselors, active in establishing working solutions to some nuances of difference between psychotherapy and counseling, and a teacher and supervisor of the marriage counseling trainees. (Bowen 1966b)

These were years when psychoanalysts had begun looking beyond the individual and were beginning to explore various interpersonal relationships. Clarence Oberndorf first presented on psychoanalysis with married couples to the American Psychiatric Association convention in 1931 and wrote on the use of psychoanalysis with married couples in 1938. Clearly, other people were working with a broader view than the individual during Bowen’s Menninger years. In 1948, Bela Mittleman of the New York Psychoanalytic Institute studied twelve married couples using conjoint psychoanalysis and published his findings (Mittleman 1948a). He saw each spouse individually, intermittently bringing them together in a session, and paid attention, as Bowen did in his letter writing, to discrepancies between what one spouse said about the other. Mittleman wrote another paper in 1948 on “Analysis of Reciprocal Neurotic Patterns in Family Relationships.” There, a description of spousal reciprocity was followed by identification of “reactive circles” (Mittleman 1948b, 87) and of “interlocking patterns” of anxiety among parents and children. The potential for thinking about leaving the transference between a couple was present in both Oberndorf’s and Mittleman’s work. While the idea of the family as a unit underlay Mittleman’s writing, his observations—familiar to present-day students of Bowen theory—were a novel perspective in 1948.

Regression Experiments

Parallel to his consultation at the marriage clinic in 1949, Bowen began informal research projects that examined the assumptions and tenets in Freudian theory such as deprived mothering contributing to schizophrenia and alcoholism, and the inability of those so impaired to form a transference. The first experiment used anaclitic (regression)³ therapy to address gratification of infantile need considered prominent in both diagnoses. This method involved dedicated individual attention from the nurse to offer a corrective emotional experience to a patient while Bowen provided individual psychotherapy. The nurse supplied intense caretaking by meeting every request, want or need, prompting regression of the patient to an early developmental level. Anaclitic treatment was an accepted and respected treatment method then, though not widely used.

Theoretically, schizophrenia was considered to be the result of maternal deprivation in infancy and early childhood. Therapeutically, the goal of anaclitic therapy was to encourage a state in which patients could accept the “good mothering” assumed to have been lacking in their early lives. (956, 1)

Another characteristic of Bowen’s approach was to modify treatment based on observations, then integrate theory and treatment. Dissatisfied with the first attempt with a patient with schizophrenia, he altered the method of the anaclitic (regression) program. Bowen’s modification was to use himself and the nurse as parental figures. This second method went from 1949 to 1952. Bowen set his program up with patients with two different diagnoses. Half of the patients selected had schizophrenia, and half had chronic severe alcoholism (Bowen 1962). All of their families lived at a distance from the hospital. Considered “failures” and incapable of forming a transference, they were excellent subjects for Bowen’s explorations. The theoretical hypothesis directly examined the assumptions of the rejecting mother or deprived mother unable to give love.

All of Bowen’s therapeutic experiments involved the giving of “love” that he defined as time and attention

³Anaclitic therapy: the word *anaclitic*, taken from Greek meaning “to lean on,” was a therapeutic replication of the dependence between mother and infant, usually involving the nurse as the mother (Nichols and Bressler 1958, 989).

(Bowen, 1957b). This was understood as a kick-start for growth, considered innate but being explored (Bowen 1957b). These investigations showed his inherent ability for long-term research.

Research in Action

One example with a young schizophrenic man, twenty-one years old, gives insight into the program. The first iteration, 1949–1951, was not as successful as Bowen had hoped. This effort had nurses give as much attention to the young man as possible and to help with all efforts of personal care. The result was ineffective and produced oppositional behavior in the patient (Bowen 1951, 3). The next phase involved changing the outward attitude of the staff; they were to give with nothing expected in return. This was troublesome for nurses to carry out (1951, 4) as it seemed neglectful of the patient. Yet, when the fulfillment of every need and want was within reach, regression occurred. In this iteration, Bowen was very active in this treatment effort. For instance, the archival notes have anecdotes of Bowen searching Topeka for a specific apple cider the patient wanted (1951, 21).

Naturalistic Observation

In January 1951, the young man's mother visited. Bowen saw both of them together. The observations from this visit brought a significant modification in Bowen's regression program. As Bowen observed mother and son, he saw that when the mother "gave" to her son, the son relaxed. This observation did not fit with the deprived mothering assumption. He also observed that if she included a demand when she gave to her son, he tensed (1951, 5). Bowen writes:

That day showed clearly the patient's need for real mothering without demands and that our program was "woefully inadequate." (Bowen 1951, 13)⁴

The third iteration, a new (changed) therapeutic course, began after the mother's visit. In this effort, the psychiatrist

⁴An in-depth discussion of Bowen's treatment program can be found in "A Psychological Formulation of Schizophrenia," by Murray Bowen, MD. *Family Systems Journal* 2 (1): 17-18.

and nurse continued functioning in a parental role (not just the nurse). This effort had a subtle but significant change. The plan was to give the young man the best, most generous mothering possible with no demands made (1951, 13). The more motherly the nurses, the better the program went. In at least one case, Bowen hired “a full-time mother” (1951). With the young schizophrenic patient, the regression intensified to the point of Bowen actually bottle feeding his patient in one instance. That was the turning point from which the young man gradually began to “improve” and emerge on a better functioning level (1951, 17). Bowen was watching for this innate growth to kick in. With needs met, the patient found resources within self and used those in his environment.

Bowen’s hypothesis asked if, with much attention, schizophrenic patients could form transferences. As regression deepened, intense transferences developed between patients and the caretakers. Social work contacts with each family provided evidence that the therapeutic relationship replicated the original parental relationship. It was a transferred relationship (Bowen 1962). Bowen made his own observations when he had contact with a parent on visits. Throughout this program, Bowen’s modifications came from his observations. When most regressed, the patients were symptom free, given certain conditions. Bowen’s factual way of writing about this does not contain any sense of surprise accompanying this when it occurred. It seemed that the relationship characteristics and environment determined if people in this treatment could be symptom free; if the relationship (doctor and nurses), the environment (others, such as aides), or inner demands interfered with the patient’s stability, psychotic symptoms returned. The interfering conditions were an unpredictable environment, a perceived demand from another, a perceived demand from within, forced mothering, and an unclear expectation (Bowen 1995, 25-26).

The treatment relationship was experienced as an intense oneness, a phrase used later in his NIMH research, but referred to then as a symbiosis between two people. Symbiosis as a relationship phenomenon was also in the literature as an alternative to the maternal deprivation model. Symbiosis described the intense interdependence of the patient’s preverbal developmental level. Bowen wrote of that dependency period as

having the "... cornerstones of mothering (and ego building)... feeding... changing wet or soiled clothing... bathing, dressing... these three functions... overshadow everything else." (Bowen 1951, 7). It was the function of mothering, not the gender of the caretaker that sustained the interdependence.

In the regression work, Bowen found that severe impairment was associated with a preverbal level of functioning and required new understandings.

... psychoanalysis depends on verbalization of the conflict and it is simply not possible for anyone to put into words a conflict that belongs to the period of preverbal conflict. (Bowen 1951, 44).

The Concept of Differentiation

The regression experiment showed that these serious symptoms were not rigid or permanent. People in a regressed state had no symptoms. In the powerful closeness of the clinical symbiotic relationship, an intense transference formed. After several months of this intense closeness, without environmental interference, the individual moved on their own toward deciding on and acting upon ways to grow up—to act without the intense dependence of the relationship to keep the symptoms at bay (Bowen, 1995, 29). The life force of togetherness was obvious in this effort, but the life force of separateness—differentiation—was also there. Nature built it in to activate developmentally in the early years. As one redundancy of nature, in a life course of an adult, the human brain can activate this by observation, assessment, thinking, and behaving differently in the same relationships. The conditions of the regression had allowed this actualization. In later years, Bowen offered the opinion that evolution can activate growth in the necessity of life-and-death decision making. "Many people are completely dependent on evolution to raise or lower 'differentiation' in a lifetime" (Kerr and Bowen, 1988, 342).

Differentiation, as used in psychiatry, was

...a state arrived at when psychobiological patterns of personality develop without being warped by

adverse environmental influences. This is the more psychoanalytic genetic-dynamic concept, the more biologically based one. (Saul and Pulver 1965, 6)

As used in biology, however, differentiation also describes the process that prompts one cell to divide into two in an ongoing sequence to form units that have specialized functions and interact with other units to perform various functions that sustain the whole organism (Bowen 1990). Bowen's interest was in locating concepts in nature, and the concurrent use of the term *differentiation* as used in biology matched his observations. While the exact date of his first use of this definition is unknown, we see evidence of its use in Bowen's regression work:

I was thinking about what happens in embryology, the process you find in cells becoming sufficiently autonomous to exist side by side and still be different. (Bowen 1980, 8)

The process of differentiation is what Bowen observed in the surrogate family relationship. He noted two aspects of differentiation of self: (1) After six to seven months, patients pulled out of the regression to better functioning, but with an intense symbiotic attachment to Bowen that took years of follow-up work to resolve (Bowen 1956). (2) There were variations in a patient's ability to use thinking to override emotional reactions. He saw differentiation of the reasoning system; thinking that could override the deeper emotional and feeling system in people considered incapable of such ability. He watched as a patient reduced dependency and planned their own life (Bowen 1995, 29). In the presence of a noninterfering yet emotionally present other, the patient's innate capacity for growth actuated. This presence stimulated motivation toward being a separate self. Patients could make "I" statements that were progressive, not reactive. This is the early origin of the concept of differentiation in Bowen theory. It came from direct observation of participants in the regression program who spontaneously ended the regression (Bowen 1956, 2). "The instinctual force toward differentiation is built

into the organism, just as are the emotional forces that oppose it" (Bowen 1978, 371). Bowen considered this understanding, based in nature, as a replacement for id, ego, and superego in understanding improved functioning. The progress made depended on the continuance of the symbiotic relationship.

Growth was innate. Besides patient self-accountability, Bowen observed himself: his ability to have a close relationship without moving towards or away from another as the other shifted from regression to improved functioning.

Thomas Kuhn, the American historian of science, calls such findings the "gestalt switch... that 'inundates' a previously obscure puzzle, enabling its components to be seen in a new way that for the first time permits its solution" (Kuhn 1970, 122).

Bowen's next research effort at Menninger followed the thread of theory building that began with his in-patient regression work.

Non-Mothering Experiment

Bowen immediately set up another experiment that ran concurrently for a year with the in-patient program that ended in 1952 while the out-patient effort went to 1953. His inductive reasoning was to explore the possibility of growth activating without a focus on symptoms or an intense attachment to the clinician. While the regression method of mothering the most severe human problems was a "directed program of giving" (Bowen 1951, 26), the next exploration was the opposite, a "non-mothering" (Bowen 1957a) approach. "The term 'non-mothering' was chosen because it was the opposite of the mothering attention which was stressed throughout the regression treatment" (Bowen 1957a).

Non-mothering explored the method of being present without interference as a condition for growth to activate. It was done with out-patients who, although they had severe problems of alcoholism and schizophrenia, did not require hospitalization and were seen by residents at a busy out-patient facility. The residents were under Bowen's supervision at Shawnee Guidance Center, the local center Bowen had helped establish in 1949 and where he served as Clinical Director (n.d.b). In the out-patient research, family members, living

locally as these patients were from the surrounding community, had active involvement with the social worker.

A second meaning of differentiation of self is a process of using knowledge and observations to intentionally behave differently in the same relationships. Practiced over time, this personal effort alters automatic reactivity, substituting a response congruent with the best of self. It is the action to relate to another by using thinking to modify self.

This research effort's importance lies in experiments with a method emphasizing differentiation, creating a growth environment, and directing interaction. This was first taught to residents, then they applied it with clients in a less restrictive environment than a hospital. It was a shift from supplying mothering attention to supplying a consistent presence in a undemanding environment.

Bowen had first applied aspects of the non-mothering principles to himself, in the iterations with the regressed in-patients, by being a presence to the patient while managing those ordinary human responses of compassion, empathy, and sympathy in himself. Conquering pity and even anger was part of his work on self. He did this to learn by repetition how to manage himself, even experimenting with avoiding any encouragement of transference. He knew symbiotic attachments occurred readily in in-patient work and took years of work to resolve (Bowen 1973). Finding a way of relating to others that did not depend on transference had the potential to help many more people. One way to do this would mean leaving the transference where it originated.

Relationships have a reciprocity, and given the right conditions, rapid growth can occur with even the most impaired people. The out-patient, non-mothering, therapy design was one adult (the therapist) speaking with the adult in the patient on the "problems he had in dealing with the infant in himself" (Bowen 1957c, 16). (Clinicians who practice from this model are familiar with the patience this takes.) Clients had innate strengths, and this was not to be co-opted in the therapeutic process. They were adults, and residents were to recognize and respect this and manage their own mothering tendencies. Bowen had already observed that growth occurs in a supportive, neutral relationship that recognizes the capacity

to think and take action for self. Fostering a clinical environment supporting this was required.

Residents' efforts were directed toward being present to the patient in a way that mobilized the patient's inner strengths to find their own ideas and take actions for self. Bowen's instruction modeled the non-mothering approach as he talked theory with the residents and set protocols for them to follow. Residents were to practice avoiding forming transferences. Said another way, the out-patient program examined whether people, when freed from the intense need of others to care for them, could then harness their own powers to reengage the life force of individuality and resist the togetherness pull of reactivity—even just a little.

Residents were instructed on how to manage their own motherly reactions, including their attitude:

Do the things that establish the person and the therapist as separate, autonomous entities—Find a way through the opposing bids from the patient to be the patient's parent and to treat him or her as an adult, begin pointing out relationship distortions and avoid having them acted out—the therapist is not the parent or a parent substitute (ex: if a patient asks for money, don't interpret, rather "I'm your therapist not your father"), work toward establishing autonomy of self by avoiding projection or interpretation, one can only know what other thinks and feels if the individual expresses it, avoid such comments as "I understand, I think that you." If the person improves, avoid "I am pleased or proud."

Reflect the person by "You sound pleased." Avoid comments that make the therapist the expert "You feel psychotic" as Bowen had experience with this. A person would accept the comment as if it were a fact. Give choices that require the person to decide which way he or she will go, rather than "Here's an explanation for how you are." Offer "Here's what I think, others hold opposite views" or "Some people get better some don't." Relate only to the adult in the patient. Make explicit the psychotherapy contract—patient states

what he wants from the therapist, the therapist is then explicit with what he will do and what he will not do. (Bowen 1957d)

The importance of this was the effort to (1) work through the transference or to work toward avoiding it to keep the clinician separate, and (2) to find out whether residents could learn and apply this thinking and methods with the clients at the Guidance Center. He and the residents worked to avoid forming transferences and sought to observe how people take responsibility for self. Would this prove to be an effective method? A process of differentiation was observed in the relationships in the family system (parent's and child's level of ability to separate from one another) and in the clinical relationship. Bowen's approach was used with five patients diagnosed with schizophrenia or alcoholism not needing hospitalization and supported the innate life force within the patient and the essential value of a neutral other. Bowen had observed the process of differentiation in action when observing the cognitive systems of in-patients as they made progress in separating their thinking from their feelings and their actions reflected this shift. The method could be taught to residents with positive benefit to the patients.

The two concepts developed during this time—the emotional system and differentiation of self—were what Bowen referred to as “the master theory” (Bowen 1986a, 31-36).

This “non-mothering” treatment effort completed the change that went from one theoretical concept to another and then to a different treatment plan which was more in accord with the changed theoretical concept. In both theoretical concepts, the mother was regarded as the person who had played the most important part in the patient's problem. The first theoretical concept had regarded the patient as a person who had been impaired by the mother. The second concept regarded the patient as a person whose unresolved attachment to the mother caused him to respond to a mothering person as if he were a child (Bowen 1957a).

In the in-patient research, Bowen had seen patient reactivity expressed in the relationship system with him. During the regression, he observed patient subjectivity and the struggle to gain control over the inner feelings and deep emotional

reactions they experienced. Once a patient dropped beneath the symptoms as a result of the security of the symbiotic relationship, their agitation was gone. Then their curiosity was activated, and interpretations were useful (Bowen, 1995).

He applied his understandings to himself then stood beside patients as they tried to activate thinking to be a self. He taught a way of relating to residents to manage/reduce transference and then observed their efforts with patients. The possibility of using the intellect to guide one's own life had shown promise with more impaired and with less impaired people. He also observed that there were commonalities with other living things that fit with his hunch about the human as an evolving species: the automatic instinctual action that is the energy of life (Bowen, 1987c). This internal, orienting system that guides and sustains life, composed of biological facts—instinct, reproduction, breathing, heartbeat, digestive processes—he named the emotional system. He also called it the subjective system or the “life force-all the way from one cell animals to the human” (Bowen, 1987c).

Observations of in-patients recorded what could be seen of the emotional system when feelings were activated or when unexplained behavior occurred. Bowen considered the emotional system a replacement for the idea of the “unconscious” in Freudian theory, which was inferred but could not be seen. It was a term for the influences on functioning that were out of awareness but operational. Bowen put the emotional system at the instinctual level where it included the feeling system as a bridge between subjective states that show the deeper parts of the emotional system responding automatically, conveying this to feeling states that inform the brain. The human's intellectual system, the ability to think, reason, and reflect, was the basis of differentiation, giving the human some measure of regulation over the feeling system and the automatic responsiveness.

Expressed in the relationship system as the actions that occur between people, the emotional system is what people do. It is in that relationship system that differentiation can occur. The two integrated concepts, differentiation and emotional system, are observable in the relationship system. Bowen writes,

The new theory was completed by 1952. It included evolution, plus natural systems theory, plus the differentiation of self to denote the intensity of the process, plus the Freudian model of a two-person relationship. (Bowen 1987a, 28)

Bowen often spoke late in his life of the theory being formed while he was in Topeka. While Bowen dates this to 1952, and the understandings from that period became the foundation for the beginning explorations at NIMH, a crucial piece of the theory was not yet in place. Sifting through archival records to discover when Bowen knew what he knew and when he wrote about what he knew, requires caution for any researcher. But careful study of his archives shows that there was a powerful thread that began early.

A basic standard of Bowen's was that change within a family relationship offered promise to long-term improvement (Bowen 1956). In both of Bowen's experiments from 1949-1952 (in-patient) and 1951-1954 (out-patient), family members had access to services of social workers. Bowen identified serious problems such as schizophrenia or alcoholism as an outcome—or functional response—between people. This reflects a very early understanding of the family as an emotional system.

Importance of the Menninger Years

The two different research projects described here formed the base of Bowen's subsequent NIMH project, extending the work done at Menninger. The in-patient regression work became the model for the treatment plan at NIMH but applied there to mothers and daughters. Each would have their own clinician, a psychiatrist for the daughter and the social worker for the mother. Each family member chose the frequency and timing of their appointments. The out-patient method became the basis for the milieu at NIMH. The family members were to be treated as adults with the inner strength to find solutions to family problems. Staff were not to intervene in family exchanges but were to be a present resource when asked.

In 1953, Bowen submitted a research proposal to the Research Department at Menninger. It was not accepted. Knowing that more exploration was needed in a research

setting, he began his search for the right placement (Bowen 1986b). He wanted to know if these concepts were universal, and if they could be extended and serve as a base for a more scientific understanding of human behavior. Comparison of the patterns of the more impaired hospitalized patients and more functional out-patients showed that differences were a matter of degree and not distinct diagnostic categories. This held true later for comparisons at NIMH. These comparisons are also an early precursor to the differentiation of self scale.

While Bowen went to NIMH without a defined project, there is a history that foreshadowed his choice of hospitalizing mother-daughter pairs. In March 1954, three months before leaving Menninger, he sat with a mother who requested the interview for her daughter and then stayed in the room while it occurred. In his clinical notes, Bowen describes the experience as

amazing for the examiner...the intensity of the relationship between a mother and her schizophrenic daughter...I have never seen...the dependent intensity that is present... (Bowen, 1954, 1)

He continued on describing the “one hour drama” (2) starting with asking the daughter to come into his office. Both mother and daughter went in. The tension between the two was visible. Bowen chose to use the hour to observe their relationship. “The complete dependent need of the mother for the daughter and the daughter for the mother is a revelation. ...I was desperately trying to see both sides of the problem” (5). It was in August 1954 at NIMH that Bowen had the opportunity to define his project and he chose having mothers and daughters diagnosed with schizophrenia live on the ward together.

THE MOVE TO NIMH

In July 1954, Bowen took his ideas to the National Institute of Mental Health (NIMH), where, in the first year, from November 1954 through December 1955, he hospitalized both mothers and daughters from single-parent families where one person had schizophrenia. Bowen arrived at NIMH with an

understanding different from the current doctrine, and one that included a treatment method. The NIMH Clinical Center was eager to have innovative research, and a theoretical base was required. Bowen set up his new ward using ideas he brought from Menninger. The fact that it was an all-female ward limited his selection. One mother was considered more impaired than her daughter who had the schizophrenic diagnosis. His intention was to research a specific way of thinking about the early mother / child relationship and the possibility of it self-correcting.

At the start, Bowen was studying a two-person system. Hospitalized mothers and daughters lived in an environment that supported differentiation by attempting to leave transference between them. The ward provided the opportunity to observe other family members when they visited.

By January 1955, the restriction of the female-only ward was rescinded for practicality when a family of interest to NIMH for research purposes (given the name Genain by psychologist David Rosenthal) was placed on Bowen's ward (Bowen 1954, 2). At this point in time, no research project had been defined for this family nor is it clear who would direct any such research with them. This permitted Bowen to observe an intact family intermittently staying on the ward that was not part of his research project. The family lived on the ward off and on for three years and Bowen was the clinician for one daughter. His observations about this family likely contributed to his work in developing the concept of differentiation and opened up the question of genetics. Rosenthal later wrote about this family in *The Genain Quadruplets: A Case Study and Theoretical Analysis of Heredity and Environment in Schizophrenia* (Rosenthal 1963). The family had four monozygotic⁵ daughters who were all schizophrenic.

Within five months of starting his mother-offspring project, Bowen had a significant discovery, recognizing the importance of other family members to what he now saw as

⁵Although the Genains are quadruplets, identical offspring occur more frequently with twins. *genome.gov* contains the following definition: "Identical twins are also known as monozygotic twins. *Monozygotic* twins result from the fertilization of a single egg that splits in two. Identical twins share all of their genes and are always of the same sex." <https://www.genome.gov/genetics-glossary/identical-twins>.

a fragment of an emotional unit. A new hypothesis emerged in March 1955:

We believe that study of *the family unit* (italics added) has a great promise, especially in research work and the understanding of problems. (Bowen 1955a)

This was the missing piece to his master theory. The family, as a reciprocating system involving other family members, could now be explored as being shaped by evolution. Modifying theory was acceptable. Bowen's explorations had two parallel tracks. The first was concerned with how to move theory toward science (Kerr and Bowen 1988, 351), and would be welcomed at the Clinical Center. A second track, that a theory of the human had to be based in evolution, might not. The finding of the family as a unit on the research project added a missing piece to Bowen's second track. His efforts would proceed toward a more scientific theory, and he could now follow his hunch from Menninger that human emotional illness had commonalities with other living things that pointed to the family as a natural system. Having an idea is very distantly related to having a fact. He was careful not to use the idea—the family as a system—until there was more supporting evidence.

After March 1955, with this idea of the family as an emotional unit in mind, Bowen shifted his research project to consider other family groupings for study. He decided that the father-mother-offspring group was the most workable (Bowen 1979a, 3). His annual reports show that he is moving to a new hypothesis. For the December 1954 report about the project to NIMH, the title focused on the early relationship influences in the mother-child unit and the later emergence of schizophrenia (Bowen, 1954). In little over a year the title has changed to "Analysis of the Family Study Project." (Bowen, 1956). The mother-daughter study did not end. The new hypothesis, taking until December 1955 to implement, changed the focus from the dyad to the whole family. Two of the mother-daughter pairs remained on the project until 1957, giving Bowen continued observation of both mother-daughter pairs and intact families. All the patterns seen in the mother-daughter pairs repeated in the whole families. It is important

to note that at the start of this refined hypothesis studying intact families, Bowen did not know if his “family as a unit” postulation would hold up with the father-mother-offspring configuration. It is easy to attribute foresight to Bowen that he did not yet have. But this work allowed for scientific study of human behavior in such a way that further hypotheses could be formed and additional research done on families. When intact families were admitted to the ward in late December 1955, Bowen revived his “hunch” that the human is more like other living things than different from them:

There was one finding from my schizophrenia research that later became the core of the differentiation concept. It was a finding that probably would have been missed had it not have been possible to first see it in its most intense form in schizophrenia. It had to do with the degree to which the family is involved in the intensity of the feeling process which is centered in the patient. The family lives in a feeling-dominated world. It is difficult to impossible for them to make principle determined decisions that oppose the feelings. They make life decisions to relieve the anxiety of the moment when they could know, if they could think at the time, that serious life complications would result from the decisions. (Bowen 1966a, 166)

Visual Representation of Differentiation

In the archival notes of meeting discussions of the four therapists collaborating to define a research project for the Genain daughters, there is solid evidence that Bowen spoke to his peers about his treatment approach, an observable method measuring and supporting an individual’s capacity to separate feeling and reasoning (Bowen 1955d, 1). In the records of these meetings, a drawing by Bowen shows how he understood the functioning of the four daughters and their mother. The illustration shows a double see-saw, a long plank with two sisters on each end balanced by a fulcrum point being the mother. He used the drawing to describe the sisters as functioning as two sets of two sisters. There was a balance in functioning within each set and between them that shifted the relationship to the mother’s recognition of the daughter, not

from the daughter's innate strength. Even when the balance was seriously out of kilter, the shifts were only in relation to the mother (Bowen 1955c). Others present at the meeting later referenced Bowen's previous discussion of a scale to describe the relationship between the siblings. These archival records show that the idea of using a scale of differentiation to describe functioning variation was germinating. In part, this comes back to Bowen's original question of how children from the same family turn out differently.

CONCLUSION

The historical records show the long process in developing a theory and forming observations into concepts, even after the NIMH project. Throughout his life, Bowen continued active efforts to deepen his own understanding of differentiation. In 1964 he realized that in the field of family therapists "the same emotional system present in any family was also present in the people who have been working with families. I spent the time trying to differentiate me from the other 'family people'" (Bowen, 1965). His better-known effort with his own family took place in 1967 (Bowen, 1978).

Theory development was Bowen's lifelong personal endeavor. From 1946 to his death in 1990, he searched for facts to add substance to his primary concept that there was great importance in studying the family as a unit, a natural system shaped by evolution. In 1966 the first six concepts of family systems theory were published. This included the concept of sibling position adapted from the research of Walter Toman, PhD (Bowen, 1978, xv). Additional concepts were added: "societal emotional process" in 1974 (Bowen 1978, xvi, xvii) and "emotional cutoff" in 1975 (Bowen 1978, 382).

Throughout his life, Bowen explored the concept of differentiation of self, applied it to himself and in his relationships, and observed how it permitted an individual to manage their own emotional system to develop more self, recognizing that this work on self may change the family's emotional system and alter how the family moves into the future. As early as 1956, Bowen recognized the challenge he was attempting.

It may never be possible to do a 'clean' separation between that part of human behavior determined

primarily by biology and genes and instincts and that part determined by the higher brain centers. The two functions overlap in subtle ways. I began my first stumbling efforts at this in 1956. (Bowen n.d.d.)

Sometime in the 1980s at a presentation at Western Pennsylvania Family Center in Pittsburgh, Bowen mentioned that there were nearly thirty variables associated with a differentiating effort. The archives may hold the answer to what they are.

Bowen has said that he only skimmed the surface of the data results available in his research efforts.

There are whole series of facets to the project that for lack of time, have hardly been touched... another whole area, still barely touched, and for which research data exists is the area of somatic problems... Data exists to do a family history in terms of the "family unit" concept, rather than in terms of individual histories of family members.... (Bowen 1960)

While this paper has emphasized the concept of differentiation of self, the concept of the emotional system is of equal importance. That archival search is for another article. Theory development was unfinished at Bowen's death. It is a long, arduous task to go from an idea to a supported conclusion. This article has used one effort for illustration, even though the archives could be further mined on this concept. Murray Bowen's legacy of written materials, manuscripts, drafts, professional presentations, clinical notes and videos, Georgetown training sessions, and both personal and professional letters, compose the depth of his archives. He left a significant legacy on how one person used reasoning and naturalistic observation to make sense of human behavior. ❖

REFERENCES

- Bowen, Murray. 1947a. Letter, ca. 1947. Copy in possession of the Bowen family, Williamsburg, VA.
- Bowen, Murray. 1947b. Presentation: "Psychiatric Approach to the Everyday Problems in the Family." Copy in possession of the Bowen family, Williamsburg, VA.
- Bowen, Murray. 1947c. Family diagram on a patient at Menninger. January. Copy in possession of the Bowen family, Williamsburg, VA.
- Bowen, Murray. 1948. Presentation to District Rotary Club Convention, Topeka, KS. Copy in possession of Bowen family, Williamsburg, VA.
- Bowen, Murray. 1951. Presentation: "Direct Gratification of the Infantile Need in Schizophrenia." October. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 5, Folder Papers, schizophrenia notes, etc.), Bethesda, MD.
- Bowen, Murray. 1954. "Analysis of NIH Program Activities, Project Description Sheet." L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 4, Folder NIMH Annual Report (Project Description), Bethesda, MD.
- Bowen, Murray. 1955a. Report on research activity of laboratory of adult psychiatric investigations, general staff meeting, NIMH, March 15. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 4, Folder Report NIMH general staff), Bethesda, MD.
- Bowen, Murray. 1955b. Clinical Record Admission Note. May 17. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 3, Folder Name redacted), Bethesda, MD.
- Bowen, Murray. 1955c. Transcript: Third meeting of the quad therapists with Dr. Hill, Consultant. August 17. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 3, Folder [Name redacted] therapists meeting), Bethesda, MD.
- Bowen, Murray. 1955d. Presentation: "The Current Status of Man in Relation to Mental Health." Presented at the joint meeting of the Kansas Association for Mental Health, Kansas Family Life Association and the Kansas Council for Children and Youth at Kansas Wesleyan University, Salina Kansas, September 29-30, 1955. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 5, Mtg. notes October 1954), Bethesda, MD.
- Bowen, Murray. 1956. Combined clinical-staff present NIH 1956. September 25. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 7, Folder Schizophrenia and the family), Bethesda, MD.
- Bowen, Murray. 1957a. Draft: "A psychological concept of schizophrenia," ca. 1957. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 3, Folder A psychological concept of schizophrenia), Bethesda, MD.

- Bowen, Murray. 1957b. "A psychological formulation of schizophrenia." L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 2, Folder A psychological formulation of schizophrenia), Bethesda, MD.
- Bowen, Murray. 1957c. Draft. "Schizophrenia and the family," ca. 1957. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2007-073, Box 3, Folder Working papers from NIMH project re: schizophrenia), Bethesda, MD.
- Bowen, Murray. 1957d. Letter. December 2. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 6, Folder NIMH correspondence q through z), Bethesda, MD.
- Bowen, Murray. 1959b. Letter to a former Menninger patient. July 6. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2003-044, Box 3, Folder Name redacted), Bethesda, MD.
- Bowen, Murray. 1960. "Family Research Study—A Prospective," ca. 1960. L. Murray Bowen papers. National Library of Medicine, History of Medicine Division (Acc. 2007-073, Box 3, Folder Bowen-NIMH-working papers incl. proposal for project), Bethesda, MD.
- Bowen, Murray. 1962. "Chapter II Theoretical background." L. Murray Bowen papers. National Library of Medicine, History of Medicine Division (Acc. 2014-034, Box 6, Folder Chapter I The research project), Bethesda, MD.
- Bowen, Murray. 1965. Letter, January 5, 1965 to Leslie Osborn. L. Murray Bowen papers. National Library of Medicine, History of Medicine Division (Acc. 2009-013, Box 1, Personal/professional letters), Bethesda, MD.
- Bowen, Murray. 1966a. An interview with Murray Bowen, MD about the Bowen theory. David Berenson, MD, interviewer. January 24. L. Murray Bowen papers. National Library of Medicine, History of Medicine Division (Acc. 2004-013, Box 5, Folder, Special papers), Bethesda, MD.
- Bowen, Murray. 1966b. Explanation of identifying data, section I, 1966. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2009-013, Box 6, Folder GAP), Bethesda, MD.
- Bowen, Murray. 1973. Letter. November 23. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2007-012, Box 4, Folder Misc. Correspondence), Bethesda, MD.
- Bowen, M., (1974, February 19). [Letter to an acquaintance]. L. Murray Bowen papers, History of Medicine Division, National Library of Medicine, (Acc. 2004-043, Box 4, Folder Name redacted), Bethesda, MD.
- Bowen, Murray. 1977a. Draft. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division, (Acc. 2004-013, Box 3, Folder Symposium 1977), Bethesda, MD.
- Bowen, Murray. 1977b. Draft. Differences with Conventional Theory. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 3, Folder Schizophrenia as a Multigenerational Process), Bethesda, MD.

- Bowen, Murray. 1978. *Family Therapy in Clinical Practice*. New York: Jason Aronson.
- Bowen, Murray. 1979a. Defining Family Systems Theory and Family Systems Therapy. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2004-013, Box 3, Folder Cancer Symposium, Oct. 15, 1979), Bethesda, MD.
- Bowen, Murray. 1980. Interview by Richard Simon. February-March. Family Therapy Practice Network Newsletter, Vol. IV, No. 1, "A network genealogy: a history of family therapy in the Baltimore-Washington corridor: Part III-The protoplasmic world."
- Bowen, Murray. 1982. Pre-symposium notes. November. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2007-012, Box 3, Folder Subjectivity, *Homo sapiens* and Science), Bethesda, MD.
- Bowen, Murray. 1984. Presentation, Northampton, MA. March 16. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2003-044, Box 5, Folder Northampton, Mass - Mar. 16, 1984), Bethesda, MD.
- Bowen, Murray. 1985. Letter. July 4. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division, (Acc. 2006-003, Box 2, Folder Correspondence materials), Bethesda, MD.
- Bowen, Murray. 1986a. Draft. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 8, Folder Drafts of 'Odyssey' - In theoretical principle), Bethesda, MD.
- Bowen, Murray. 1986b. Presentation at Center for Family Consultation, Wilmette, IL. June 7, 1986. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division, (Acc. 2003-004, Box 6, Folder CFC - Chicago, Ill, June 7, 1986).
- Bowen, Murray. c. 1987. Draft "An Overview of the Bowen Theory." L. Murray Bowen papers, National Library of Medicine, History of Medicine Division. (2006-003, Box 8, Folder Printed Papers in Odyssey).
- Bowen, Murray. 1987a. Draft Epilogue an Odyssey Toward Science. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 8, Folder Printed papers in odyssey), Bethesda, MD.
- Bowen, Murray. 1987b. Transcription, Presentation at Georgetown Family Systems Symposia, November 8, 1987. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2004-013, Box 3, Folder Symposium-Nov. 7-8, 1987), Bethesda, MD.
- Bowen, Murray. 1987c. Letter. June 1, 1987 to a clinical psychologist. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2007-012, Box 1, Folder Misc. Working Papers), Bethesda, MD.
- Bowen, Murray. 1988a. Origins of fam. theory and therapy in mental health. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 8, Folder Family evaluation), Bethesda, MD.
- Bowen, Murray. 1988b. Letter to Rev. Timothy S. Healy, S.J., President, Georgetown University. September 6. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2004-043. Box 5, Folder Letter draft Dr. Bowen to Rev. Healey President GU), Bethesda, MD.

- Bowen, Murray. 1990. Letter. April 19. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2006-003, Box 3, Folder Correspondence materials), Bethesda, MD.
- Bowen, Murray. 1995. "A Psychological Formulation of Schizophrenia." *Family Systems 2*: 17-47.
- Bowen, Murray. n.d.a. Working notes on introduction for Margaret Hall's book. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2005-055, Box 1, Folder Margaret Hall), Bethesda, MD.
- Bowen, Murray. n.d.b. Letter. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2007-012, Box 1, Folder Misc. working papers), Bethesda, MD.
- Bowen, Murray. n.d.c. Draft. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2007-012, box 2, Folder In search of Theory), Bethesda, MD.
- Bowen, Murray. n.d.d. Letter. L. Murray Bowen papers, National Library of Medicine, History of Medicine Division (Acc. 2007-012, Box 2, Folder Partial drafts), Bethesda, MD.
- Encyclopedia.com. 2020. "Resolution of the Transference." <https://www.encyclopedia.com/psychology/dictionaries-thesauruses-pictures-and-press-releases/resolution-transference> Accessed December 30, 2020.
- Fromm-Reichmann, Frieda. 1948. "Notes on the development of treatment of schizophrenics by psychoanalytic psychotherapy." *Psychiatry 11*(3): 263-273.
- Grinnell, Frederick. 2009. *Everyday Practice of Science: Where Intuition and Passion Meet Objectivity and Logic*, Oxford University Press: New York. 1st edition.
- Kerr, Michael and Murray Bowen. 1988. "Epilogue: An odyssey toward science." In *Family Evaluation*, by Michael E. Kerr and Murray Bowen. New York: W.W. Norton and Company.
- Kuhn, Thomas. 1970. *The Structure of Scientific Revolutions*. The University of Chicago Press: Chicago. Second edition.
- Menninger, W. Walter. 2004. "Contribution of Dr. William C. Menninger to military psychiatry." *Bulletin of the Menninger Clinic 68*(4, Fall 2004): 277. ProQuest Central.
- Mittleman, Bela. 1948a. The concurrent analysis of married couples. *Psychoanalytic Quarterly 17*:182-197.
- Mittleman, Bela. 1948b. "Analysis of Reciprocal Neurotic Patterns in Family Relationships." In *Neurotic interaction in marriage*, ed. by Victor W. Eisenstein. New York: Basic Books, 1956.
- Nichols, Claude and Bernard Bressler, B. (1958). Anaclitic Therapy. *The American Journal of Nursing, 58*(7), 989-992. <https://doi.org/10.2307/3472963>
- Saul, Leon J. and Pulver, Sydney E. 1965. "The concept of emotional maturity." *Comprehensive Psychiatry, 6*(1): 6-20.