

## Nina Bull: The Work, Life and Legacy of a Somatic Pioneer

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### Abstract

Nina Bull is a significant albeit underappreciated figure in the history of body psychotherapy. She was a pioneer in the study of the mind/body relationship and the role of the musculature in subjective experience. She is best known as a teacher and mentor to Stanley Keleman, the founder of Formative Psychology. Still, her life largely remains a mystery as little has been done in the way of compiling information about her work or personal life. This paper presents a synopsis of her attitude theory, describes the experiments she conducted to confirm her theory, discusses the relationship of her work and Formative Psychology, and presents original historical study of the events and attitudes that informed her research.

*Keywords:* Nina Bull, Formative Psychology, emotion, history of psychotherapy, skeletal musculature, muscles, attitude theory.

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### Introduction

Nina Bull, who lived from 1880 to 1968, was a pioneer in the study of the mind/body relationship and the role of the musculature in subjective experience, yet little has been written about her work or her life. She is probably best known as an important mentor and teacher to Stanley Keleman, the founder of Formative Psychology. The present article appears to be the first devoted specifically to her. It includes a synopsis of her attitude theory and the experiments she conducted to test the theory, a consideration of her life, and a discussion of her legacy with respect to both the role of attitude theory in Formative Psychology and other aspects of her legacy in the wider culture.<sup>1</sup>

She was well ahead of her time, being a woman in what was then considered “a man’s field”, starting her scientific career in her mid-fifties at a time when 50 was considered much older than nowadays, and forging a successful career as a scientist despite not holding a formal degree. Her attitude theory would prove a major influence on Keleman’s Formative Psychology.

<sup>1</sup> The historical research reported herein would have been extremely difficult, if not impossible, to conduct until recently. In the past few years Google and others have digitized and indexed major portions of the world’s literature. Full-text searches of these digitized documents yielded fascinating insights into Bull’s personality and life story, and pointed to historical archives that contained further information.

Bull published her first scientific work at the age of 58 (Bull, 1938). Over the course of the next 25 years she published some 18 papers in peer-reviewed journals, and two books (Bull, 1951; Bull, 1962). Her major contribution was the articulation of attitude theory.

In the 1940's and 1950's, first as research associate in psychiatry at Columbia University's College of Physicians and Surgeons and later, after forced retirement in 1950 as Director of Research Projects for the Study of Motor Attitudes at New York State Psychiatric Institute (Herrick, 1950), Bull developed theory and conducted experimental investigations into the nature of emotions. She noted that any behavior, that is, any bodily movement, requires some postural preparation. "Some portion of the organism must always be stabilized to form a fulcrum from which the movement can take place..." (Bull, 1951). She postulated that if this preparatory attitude was not followed immediately by the consummatory action, then the subjective consciousness of an emotion would arise. If, for example, we are about to cry, but hold that attitude and inhibit the actual crying, we feel sorry. Once we begin to cry we feel less sorry. Emotion would not be generated from a preparatory motor attitude followed immediately by the consummatory action, but a delay between these two events would result in emotion.

Her theory, she explained, was similar to those of several others, most notably the James-Lange theory and the theories of W.B. Cannon (Bull, 1951). Her specific contribution was the introduction of the neuromuscular sequence and the role of the "preparatory motor attitude": first a latent readiness or "predisposing neural pattern", then the motor attitude preparatory to action, which then gives rise both to feeling, if the consummatory action is delayed, and action itself. Attitude theory contends that, contrary to common assumption, preparation for action precedes, not follows, the subjective awareness of emotion.

### Testing the Theory: Experimental Investigation of the Mind/Body Relationship

Bull tested her theory through a series of experiments. The first step was to determine the specific muscular configurations and postures associated with specific emotions. Ten subjects—"seven men and three girls" (Bull, 1951, p.44)—screened and trained for the rapid induction of a hypnotic trance, were given the following hypnotic suggestion:

In a little while I shall count to five. Immediately afterward I shall say a word which denotes an emotion or state of mind. When you hear the word you will feel this emotion, experience this state of mind strongly. You will show this in your outward behavior in a natural manner. You may do anything you like, open your eyes or leave them closed, remain seated or get up, lie down on the couch or walk about—anything at all. You will not be annoyed or embarrassed by our presence in the room. Afterward you will be able to describe what happened. (Bull, 1951, p. 45)

The procedure was conducted with six stimulus emotions: disgust, fear, anger, depression, triumph, and joy. The subjects' behavior was recorded in detail by two or three observers. In this way, Bull learned the specific muscular configurations associated with each of these emotions. She used this information in the next phase of her research.

The next step was to show that these muscular attitudes invariably preceded the subjective experience of their associated emotional state. She did this by setting up a situation which could disprove the prevailing theory.

If the basic sequence of motor attitude □ feeling could be split into component parts, so that by hypnotic suggestion feeling at variance with the postural set commonly associated with it could be produced,

then a reinvestigation of the entire concept would be called for. (Bull, 1962, p.37)

In one arm of this phase of the study, subjects were again placed in a hypnotic state and an emotion was induced, as before, by the experimenter saying one of the six stimulus words. The subjects were instructed to maintain the feeling of that emotion while assuming a motor attitude associated with a different emotion. For example, if the stimulus word was "joy" or "triumph," the subject might then be instructed to maintain that feeling while at the same time tensing the hands and arms and tightening the jaw (a motor attitude found in the first phase of the experiment to be associated with the feeling of anger). The subjects found it impossible to do this.

In a second arm of the experiment the order was reversed. Subjects were first instructed to assume a motor attitude described by the experimenter and then asked to experience an emotion named by the experimenter. For example, they might be instructed to tense their hands and arms and tighten their jaw while simultaneously experiencing the emotion of joy or triumph. Subjects found this impossible to do as well.

In this way, Bull demonstrated that emotion is invariably preceded by a motor attitude specific to that emotion. Subjects could not experience a different emotion unless they first adopted a different postural attitude.

In 1962, Bull published a second book, *The Body and Its Mind* (1962). Stanley Keleman worked with her on the research that resulted in this book (USABPJ, 2007). This book extends attitude theory beyond emotion to include goal orientation, frustration, and depression. In a 1954 letter to C. Judson Herrick, Bull wrote of the further development of attitude theory and stated, "It seems we are on the verge of some formulations that should be of real use in therapy" (Herrick, 1954).

### Correspondence and Other Interactions with Colleagues

Her correspondence with colleagues makes for fascinating reading. The record that I have at hand is probably incomplete, as I have not located an archive specifically devoted to her papers. However, I have located correspondence in the archives of a number of her correspondents. Bull frequently introduces herself to her correspondent by sending a reprint of one of her papers. She will then mention a paper or line of thought of theirs and suggest that attitude theory may fit well her correspondent's ideas, and then invite a reply.

The Archives of C. Judson Herrick at the Spencer Research Library of the University of Kansas contain some 50 letters, spanning the years 1946 to 1960. She sent him copies of her articles and requested his response, to which he frequently responded in some detail. The letters record the development of Bull's thought and contain rich discussions of various neurological principles and philosophy. We also learn from these letters that Bull was acquainted with Mira Korzybska, who was a prominent portrait painter and the wife of Alfred Korzybski, the founder of general semantics. We also learn of her acquaintance with Len Lye, an experimental filmmaker, and can view a picture of her laboratory at Woodstock.

The Archives of the History of American Psychology at The Center for the History of Psychology at The University of Akron contain half a dozen letters with three correspondents. Her brief exchange in 1966/1967 with Lester Aronson concerns the relationship of the olfactory sense to the forebrain. Her brief exchange with T. C. Schnierla of the American Museum of Natural History requests information about his research in approach and withdrawal behavior and a "reaching reflex". Her 1967 letter to Abraham Maslow criticizes his terms "peak experience" and "self-actualization", preferring to use instead the terms

“elation” and “integration”. She suggests that “elation” could be studied in the laboratory. “However,” she says, “when you write of homeostasis... I am with you 100%.” There is no record of Maslow’s reply.

The Teilhard Schmitz-Moormann Collection at the Woodstock Theological Center of Georgetown University in Washington, DC contains two letters from 1952 of Bull to the Jesuit priest, philosopher, and paleontologist Pierre Teilhard de Chardin, and Teilhard’s replies. She sent him a paper on attitude theory and asked him for a reprint of one of his papers. She relates attitude theory to some of his ideas and asks, “whether my concept of the emergence of cerebration fits in with your general line of thought, as it appears to me to do.”

The Eric Hoffer Collection, box 27, folder 17, at the Hoover Institution Archives of Stanford University contains a letter from 1956 in which Bull sent Hoffer a copy of her 1955 paper and asked his reaction. She stated that her ideas supported his idea of the way “frustrated people act as ‘true believers’”.

The Yale University Library contains material relating to Bull in the Hans Caspar Syz collection and the Lifwynn Foundation collection. I have not yet seen these materials.

### Her Life

#### Early Life

Nina Bull was born in 1880 in Buffalo, New York. Her father, Ansley Wilcox, was a prominent attorney in Buffalo. He was well known as a philanthropist and as a civic activist concerned with good government. He is credited with promoting the idea of holding city and county elections in odd-numbered years and state and national elections in even-numbered years. He was active in civil service reform and in efforts to save Niagara Falls from adverse development. He was also a founder of the Fitch Creche, the first daycare center for working mothers in the United States (Buffaloah, n.d.). Although generally rather cold and humorless, he appears to have been well respected, perhaps even loved, in the community (Niagara Falls Gazette, 1930; Wallace, 1989).

Bull’s mother, Cornelia C. Rumsey Wilcox, died six weeks after Bull’s birth. Bull was cared for by her mother’s sister. Three years later her father married this woman, and a daughter was born to that union. Friends of the two children remembered many years later that the marriage was characterized by “coldness and lack of intimacy” (Wallace, 1989).

A childhood friend, Mabel Ganson (later Mabel Dodge Luhan), was to play a very prominent role in Bull’s life and ultimately gained a great deal of celebrity. She wrote that Bull’s stepmother favored her own child and was cold, neglectful, and mean to little Nina. Bull’s father, although apparently generally humorless and cold, and awkward around children, nevertheless would play with Nina and her friend Mabel every day while he was dressing for dinner. He would playfully lift them up and drop them onto the bed. Nina loved this time with her father (Luhan, 1933). Generally though, Luhan writes, Nina was sad, pale and somber.

We also learn from Luhan that Bull held a religiosity that annoyed her stepmother, who was not a churchgoer. As we shall see, Bull’s sense of the divine was present, in one form or another, throughout her life.

The inauguration of Theodore Roosevelt took place in Bull’s childhood home. Bull, then a young woman, was probably present. Three months later she married Henry Adsit Bull, a fellow parishioner of the Trinity Church (Wallace, 1989). She ultimately had three children (Ogilvie and Harvey, 2000).

#### Education

As a child, Bull was educated at private school in Buffalo and at the Rosemary Hall boarding school (Leonard, 1976).

The only evidence of higher education that I have found is that she probably attended Monroe College in Forsyth, Georgia in 1904-05. “Nina Bull” is listed in the “Catalog and Prospectus” as being an “Unclassified” student (Monroe, 1904). Although I have not been able to obtain a birthdate or other positive identification, it seems likely that the “Nina Bull” listed is our subject. Her father was from Georgia, and Bull refers to the colloquial southern expression “fixing to go” in a 1951 article (Bull, 1951). It seems that she was at Monroe for just a year or two, as she did not appear in the Catalog and Prospectus of the following year (personal communication, Special Collections Assistant at Mercer University, Macon, Georgia).

I have found no evidence that Bull obtained any degree. In the preface to the 1968 reprint of *The Attitude Theory of Emotion*, she says, “I am a scientist, and the theory in this book has been endorsed by numerous top-level scientists who have accepted me as a colleague despite my lack of orthodox preparation for this career” (Bull, 1968).

#### Cultural Connections: The Salon of Mabel Dodge and the Taos Art Colony

In the early part of the 20th century a “salon” was a popular social institution. These would be gatherings, usually held in a private home and often hosted by a wealthy woman, where artists, writers, thinkers, and scientists would gather along with more ordinary folk for discussions. One of the premier organizers of these events was Nina Bull’s childhood friend Mabel Dodge. She held her gatherings in New York’s Greenwich Village and later in Taos, New Mexico.

It seems likely that Bull participated in these and met many of the leading figures of the time. These figures would include Carl Van Vechten, Margaret Sanger, Emma Goldman, Charles Demuth, “Big Bill” Haywood, Max Eastman, Lincoln Steffens, Hutchins Hapgood, Neith Boyce, Georgia O’Keefe, Ansel Adams, Gertrude Stein and her brother Leo Stein, and John Reed.

Mabel Dodge eventually moved to Taos, New Mexico, and established a well-known art colony there. Bull followed her there and hosted D. H. Lawrence on the latter’s visit. This visit was described in Dodge’s book *Lorenzo in Taos* (Luhan, 1935). Many leading cultural figures spent time in Taos, and it is quite likely that Bull was acquainted with many of them.

Bull was briefly married to Lee Witt, a sheriff and lumber mill owner in Taos (Luhan 1935, p. 114). She is sometimes referred to as Nina Witt.

#### Religious and Spiritual Development

We mentioned above that Bull was quite religious as a young woman. It isn’t clear exactly how her religiosity manifested when she was under her father’s roof, but it is reasonable to assume that it involved a commitment to the Episcopalianism practiced at Buffalo’s Trinity Church.

Later she studied “Divine Science” under Emma Curtis Hopkins. Emma Curtis Hopkins was a major figure in the “New Thought” movement. Someone once humorously described New Thought as “the old New Age”. It was described by William James as follows:

One of the doctrinal sources of Mind-cure is the four Gospels; another is Emersonianism or New England transcendentalism; another is Berkeleyan idealism; another is spiritism, with its messages of “law” and “progress” and “development”; another the optimistic popular science evolutionism of which I have recently spoken; and, finally, Hinduism has contributed a strain. But the most characteristic feature of the mind-cure movement is an inspiration much more direct. The leaders in this faith have had an intuitive belief in the all-saving power of healthy-minded attitudes as such, in the conquering efficacy of courage, hope, and trust, and a correlative contempt for doubt, fear, worry, and all nervously precautionary states of mind. (James, 1936)

Emma Curtis Hopkins taught Bull to become a “Divine Science practitioner”. Rudnick (1984, p. 134) describes this healing method: “Hopkins’s healing derived much more from her presence than from her philosophy and seems to have lasted as long. Her ‘patients’ would lie down on the comfortable hotel bed she kept for them in a room with drawn shades, while she held their hands and spoke to them in a soothing, hypnotic voice.”

In the early 1900s (the exact year is unclear) Bull published “Credo”, a single-page broadside poster that summarizes her outlook in this period. The only extant copy of this that I have found is in the rare books collection of the New York Public Library (Bull, 1915?). Their catalog entry indicates that there is doubt about the exact year of publication. I quote “Credo” here in its entirety because it so well exemplifies her viewpoint in this period and shows her poetic bent. The broadside itself is elaborate and colorful.

Credo

“If thou canst believe, all things are possible to him that believeth”

I BELIEVE IN GOD, the Universal Spirit of Life, ceaselessly creating and renewing all things visible and invisible by itself becoming them;

AND THEREFORE I BELIEVE in Man, who is slowly advancing thro pain and loneliness unspeakable into a higher order of consciousness where he shall know his own self to be one with God, the Universal Self, and enter into the kingdom of freedom and mastery which lies even now at the centre of his own being;

AND SO ALSO I BELIEVE in the beasts and plants and rocks, not yet thinking themselves apart from the Whole; slowly thro long ages unfolding towards consciousness of self and all the terrible suffering and glory of manhood.

I BELIEVE the power of Human Thought over all conditions of life on earth to be without limitation, here and now — where there is knowledge of the working of the law;

AND I BELIEVE that as the regeneration of the human body demands a new conception of human life permeating hiddenly deep down thro every cell in that body and building up the whole into order and harmony — which is health; so also the Social Body shall be saved by a new conception of Social Life permeating deep down thro every man in that Body and building up the whole into order and brotherhood — which is Democracy. —Nina Bull

“Credo” expresses her outlook at this stage of her life, beginning with a New Testament quotation and containing themes of the power of thought, a new conception of human life “permeating deep down thro every cell”, the unfolding of consciousness, the Universal Spirit of Life, the ideal of Democracy, and overall of an evolutionary thrust manifesting at the social level.

Her feel for a spiritual side to life seems to have stayed with her even through her scientific

career. In the preface to the 1968 reprint of *The Attitude Theory of Emotion* (1968), Bull writes, “Some religions ... have invented different kinds of heavens... But science, proud of its discovery of evolution, has scoffed at permanence until rather recently, when L.L. Whyte and Teilhard de Chardin both attempted to bring the facts of change together with the dream of permanence, and these men have a substantial following.”

### Her Interest in Psychotherapy and in the Body

I previously mentioned that Bull had been taught to be a Divine Science practitioner by Emma Curtis Hopkins. In about 1925, D. H. Lawrence wrote that, “Nina is as busy as ever re-integrating other people” (Moore, 1974, p. 404). This shows that Bull was actively practicing a healing art and that she conceived the healing as involving some kind of “integration”.

I do not know how closely she held to the teachings and healing style of Emma Curtis Hopkins at this point. By the mid-1920s (when she was in her mid-forties), she had apparently become “intensely interested in behaviorism, the very latest therapeutic fashion” and was going to “study some sort of co-ordination healing stunt under some doctor in London” (Ellis, 1998, p. 626). This suggests that Bull was searching for something more than what she had been taught by Hopkins. It is not known who this “doctor” was or whether she did actually embark for London.

For a while, Bull was treating her old friend Mabel Dodge while Dodge was also seeing a psychoanalyst, Smith Ely Jelliffe. Bull insisted that Dodge stop seeing him, and Jelliffe was not appreciative of Bull’s approach. Jelliffe later became the founding editor of the *Journal of Nervous and Mental Disease* and published many of Bull’s academic papers. The Smith Ely Jelliffe Trust holds the copyright on Bull’s book *The Attitude Theory of Emotion*. It would appear that their relationship transformed from one of rivals to one of colleagues.

Mabel Dodge describes an evening that she and Bull spent with birth control advocate and sex educator Margaret Sanger:

It was in talking to her at home in my sitting room that I really got something from her, something new and releasing and basic. Nina [Wilcox] and I, I remember, had a wonderful talk with her one evening — just the three of us at dinner — when she told us all about the possibilities in the body for “sex expression,” and as she sat there, serene and quiet, and unfolded the mysteries and mightiness of physical love, it seemed to us we had never known it before as a sacred and at the same time a scientific reality.

Love I had known, and pleasures of the flesh, but usually there had been a certain hidden forbidden something in my feeling about it and experience of it that made it seem stolen from life, instead of a means to that great end, the development of life, and the growth of the soul. Margaret Sanger made it appear as the first duty of men and women...

Then she taught us the way to a heightening of pleasure and of prolonging it, and the delimiting of it to the sexual zones, the spreading out and sexualizing of the whole body until it should become sensitive and alive throughout, and complete. She made love into a serious undertaking — with the body so illumined and conscious that it would be able to interpret and express in all its parts the language of the spirit’s pleasure. (Luhan and Rudnick 2008, pp. 119-120, brackets in original)

Leo Stein tells us some more: “Take the case of Nina Bull and the getting of consciousness into the body... Now you know that N.B. has a naked skin and a muscular eroticism” (Stein and Fuller, 1950, p.120).



## Social Activism

Bull was quite active in the Socialist movement and social activism generally in the early part of the twentieth century.

Bull was one the many sponsors of a mass meeting in support of peace in 1916 (Buffalo Express, 1916).

A newspaper reported in 1914 that Bouck White, a socialist activist and minister who was in Queens County jail, gave evidence of his “repentance of his rashness in undertaking to impose the oratory of his followers on a peaceful congregation” by praising Nina Bull for her “winsome temper” while yet not compromising her position (Brooklyn Daily Eagle, 1914, p. 6).

Bull wrote a letter of support to the judge in the Emma Goldman case. Emma Goldman was an activist anarchist on trial for advocacy of draft resistance (New York Tribune, 1917).

A 1915 book about religion and Marxism (Spargo) is dedicated to Nina Bull. The dedication page contains the Latin phrase “*Amicus usque ad aras*” which means “a friend to the last extremity” or “a friend as far as the altars”, meaning a friend in the extreme except as contrary to one’s religion. The book is an analysis of whether Marxism and religion are inherently mutually exclusive. Given Bull’s involvement with both religion and socialism, the dedication to her is significant.

In the mid-1950s, she contributed to the American Civil Liberties Union (Liberty, n.d.).

## Work in Education

In the early 1900s Bull authored a brief pamphlet, “As Little Children,” that expressed in poetic form her view on children and children’s education. The following is an excerpt:

So Education viewed aright, becomes  
A process for Eternity itself, –  
Man’s copy of God’s plan of evolution –  
The leading forth and drawing out of thought,  
Unfolding and revealing endlessly  
New forms, new powers hid deep within the old. (Bull, 19??)

A theme in this work reflects a theme that is present for Bull throughout her work: the idea of a hidden dimension, connected to the Divine, which unfolds and reveals itself in an evolutionary thrust.

We do not know the exact date of this work. There is no indication in the pamphlet itself of its date. We do know, however, that it dates from before 1915 because it is mentioned in the “Woman’s Who’s Who of America” which was copyrighted in 1914 (Leonard, 1976).

In 1911, Bull contacted the philosopher, psychologist and educational reformer John Dewey to convince him to establish a school in Buffalo. The Park School was established there and Dewey’s student, Mary Hammett Lewis, became the first headmistress (Provenzo and Provenzo, 2009) and would later write a book about her experiences as such (Lewis, 1928).

Nancy Romalov describes the school:

Here are two hundred or more school children, kindergarten through twelfth grade, involved in their normal school day activities...On a given day children as young as third grade are running a chicken business on a large scale and making money at an enterprise entailing the buying of seed, keeping of accounts, raising and tending of the chickens, and marketing of the eggs.

...At a nearby pond, children are busy building rafts to be used in an upcoming performance of “Pinafore.” Each spring, the children plan or plant a large vegetable garden that will become the summer food supply...

At the same time, traditional subjects like English, history, world geography or science are studied in close relationship to the children’s work. The practical activity of cooking, for example, is directed toward discovering the basic principles of both chemistry and botany; the preparation of a Thanksgiving celebration yields a history lesson. (Romalov, 1988)

In a 1918 letter to the editor of the *New York Times*, Bull writes about the “newer teaching”, and addresses the tension between preserving the order of the school and meeting the individual needs of each child. She says, “Children’s needs are as individual as those of adults, and the problem of how to fulfill these duties and yet preserve the order and harmony of the school as a whole can only be met by educators imbued with a highly spiritual conception of democracy” (Bull, 1918).

## Interest in Latin America

Bull appears to have had a special interest in Latin America. In 1916, she wrote a letter to the editor about Abraham Lincoln’s policy towards Mexico (Buffalo Express, 1916b). In 1939, she was scheduled to give a talk about the social background of Mexico (Kingston Daily Freeman, 1939). She translated a selection of the works of Constancio C. Vigil, a Latin American writer, journalist, and publisher, and wrote an introduction to these selections (Vigil and Bull, 1943).

## Becoming a Scientist

Bull stated, in the preface to the 1968 reprint of “The Attitude Theory of Emotion” (1951), that “I began to become a scientist in my early childhood, and someday expect to publish the story of the unusual experience that started me on a compelling search for truth in a realm where most people were not even aware of its lack” (Bull, 1968). Unfortunately she died shortly thereafter, before she published that story.

Bull undertook training in neurology in the 1930s. I can only speculate as to how and why she transitioned from her Divine Science practice to research in neurology.

My intuition is that perhaps behaviorism was the link between her Divine Science practice and neurology. As mentioned before, by 1925 Bull had become interested in behaviorism. Behaviorism was based on a scientific study of objective behavior, and was opposed to the psychoanalytic stance that assumed internal mental constructs that could not be objectively observed. Perhaps Bull’s interest in helping people brought her to behaviorism, and behaviorism, being a scientific approach, was the bridge between her early Divine Science approach and her later studies in neurology.

Bull met a neurologist named Joshua Rosett. I do not know if he was the first to interest her in neurology, but it seems that he became a mentor to her. They were neighbors in Woodstock (Gross, 2005, p. 205) and had Socialism in common. Rosett wrote a book on neurology in which he acknowledges her “for her valuable services in connection with this work” (Rosett, 1939, Acknowledgments).

## Nina Bull's Legacy

### Attitude Theory and Formative Psychology

The neuromuscular model of Bull's attitude theory is embodied within Keleman's Formative Psychology. In a very practical sense, Formative Psychology begins with attitude theory and then moves beyond it.

Formative Psychology makes use of a protocol called the "Bodying Practice". Keleman explains:

The practice protocol consists of five steps:

1. Recognize a somatic pattern and make a muscular model of it.
2. Assemble a continuum of shapes by increasing muscular intensity, pausing between increments.
3. Disassemble the muscular pattern in distinct stages by decreasing intensity, pausing between each decrease.
4. Wait for a pulsing, swelling shape. Then give it an edge of rigidity to form a boundary to contain the pulse.
5. Give duration to new shapes and use them for social and personal activities. (Keleman, 2007)

There is a lot of information packed into those five steps, and it requires some time to absorb and understand Keleman's language. For our present purpose, however, I want to focus narrowly on the first half of Step 1: "Recognize a somatic pattern."

The somatic pattern to be recognized is exactly what Bull calls the "preparatory motor attitude". The Formative Bodying Practice starts by the subject recognizing his or her embodiment of a motor attitude. Once the motor attitude is recognized, the practice protocol provides a structure for a deliberate and managed way to work with that particular muscular pattern.

### Clinical Application: Formative Differentiation of Bodily Attitude

Once the motor pattern is recognized, one can increase its form (intensify the attitude) so that the pattern becomes vivified. Once it is vivified, it can be disorganized incrementally and with precision. Since, according to Bull, subjective states begin with a motor pattern (and not vice-versa), the Bodying Practice protocol provides a structure for nourishing self-regulation and working with one's self and one's subjective state. The Bodying Practice is a way to work with oneself by voluntarily differentiating motor attitude. A fixed pattern grows into a range of possibilities.

I offer the following account of how I have used the Bodying Practice to formatively differentiate my motor attitude of dense social defensiveness and in this way empower myself with a wider range of choice of social behavior and a subjective sense of confidence and self-esteem.

I feel uncomfortable, "out of sorts", awkward, nervous, not wanting to be seen, not wanting to reveal myself. This is familiar. It partakes of the feeling tone of much of my childhood and much of my present day social interaction.

I pull in, just as I did in my childhood. Let me not be seen. *Let me not embarrass myself. Let me not draw attention to myself. Let me not open myself to teasing and unkind words.* I make myself smaller by pulling in my shoulders, hunching my back, and clenching my

fists. This is the motor pattern that I recognize.

But I am no longer a child. Now, as an adult, I know what I am doing, and am doing it deliberately, precisely, and with intention. I start with my hands.

With the tiniest of movements I make them solid, thick, dense, impenetrable. An observer might not even notice what I am doing, because my fingers and palms move only slightly. This is movement similar, in a way, to isometric exercises. Flexors and extensors are both activated, so there is no apparent external movement. But inside me, worlds build up, tear down, and build up again. I am voluntarily and deliberately invoking the self-protective pattern that I had formed in my childhood.

I let my hands "teach" the rest of my body. Step by smallest step I involve my forearms, my upper arms, my neck, my throat, my shoulders, my head, my trunk, my pelvis, my legs and feet. By now I have made my entire skeletal musculature denser. I pause. I take stock. I feel solid. I feel impenetrable. My nervousness and self-consciousness has gone away. I am anchored in my density. On the other hand, it's a good thing I don't want to make contact with anybody, because that would be difficult from this state.

After a moment I do it again. In a slow, managed way I move myself one more step up along the density continuum. Again, I pause and take stock.

Now I begin to undo what I've just done. In the tiniest of steps I withdraw from my effort of making myself dense. I am still "densifying", but not quite so much. I am disorganizing my density a tiny bit. Pausing to take stock, I begin to notice sensations in my body that I had not noticed before: tingling, warmth, pleasure, pulsation. I allow the sensations to develop. When I'm ready, I do another round of disorganizing the density that I have created for myself. Then I pause again, and wait, and notice even stronger sensations than I had experienced before. I experiment with myself, densifying and de-densifying, in and out, up and down, contracting and expanding. I find the place in myself that feels like an optimal density: not so dense that I completely cut myself off from the world and my own body, and not so porous that I am disorganized and vulnerable to being overwhelmed by the outside world, especially the social world.

Afterwards, as I leave the classroom and walk down the hall towards the lobby, I encounter some fellow students sitting at a table. I invite myself to join them and enjoy my conversation with them. I am uncharacteristically social. An hour ago I would have merely waved "hi" and continued walking. My formative differentiation of my characteristic motor attitude empowered me to relate to myself and the world, the social world in particular, in a new way.

### The Park School of Buffalo

The Park School that Bull was instrumental in founding and based on the educational ideas of John Dewey, has survived and thrived. It is celebrating its centennial this year. Its website is <http://www.theparkschool.org>.

### Poetry

I have discovered approximately a dozen poems of Bull's that appeared in various newspapers and other publications over the years. Here is one of my favorites:

The Mockingbird  
 Gray singer, of the song-range limitless,  
 Thy name but ill befits thee—is a slur  
 Upon thy golden morning-heartedness;  
 No mocker thou, but an interpreter.

Thou dost divine and utter forth in words  
 All brooding joys, winged hopes, and soaring prayers,  
 Mingling the simpler songs of other birds  
 In the rich beauty of an art not theirs.

(National Audubon Societies, 1915)

Another poem of note is “As Little Children” (Bull, 19??), mentioned previously. This is a nine-page prose poem about children and education. It is suffused with Bull’s spiritual sensibility, Christianity, sense of transcendence and evolutionary unfolding of consciousness, and is radical in its critique:

...O when we think of so-called Education,  
 That turns the average child, so full of promise  
 And well-marked individuality,  
 Into the average man so commonplace,  
 Well may we speak of “crime” as none too harsh  
 A term for this slow subtle form of murder...

### The Place of Nina Bull in the History of Body Psychotherapy

I would like to suggest that Bull has been underappreciated in the literature of the history of body psychotherapy. Attitude theory is a paradigm that supports a fully body-centered approach to psychotherapy yet is distinctly different from approaches based on the work of other better-known pioneers. Young (1997) and Eiden (1999), for example, focus primarily on the pioneering work of Wilhelm Reich and his students. Alice K. Ladas (Prengel, 2007) adds Elsa Gindler, stating that Reich and Elsa Gindler represent two distinct roots of body psychotherapy. Bull’s model emphasizing the role of the motor attitude provides a root for an approach that complements the energetic approach of Reich and the sensory approach of Gindler. It is incorporated in the developments of Stanley Keleman, and perhaps has influenced other practitioners and theorists as well. Only time will tell whether future historians of body psychotherapy will agree with this assessment.

### BIOGRAPHY

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210 - Like a Wall in Which an Insect Lives and Gnaws - Excerpt G 01 hr 57 min 33 sec - 161M. 210 - Like a Wall in Which an Insect Lives and Gnaws - Excerpt F 02 hr 07 min 05 sec - 175M. 210 - Like a Wall in Which an Insect Lives and Gnaws - Excerpt E 01 hr 44 min 44 sec - 144M. 210 - Like a Wall in Which an Insect Lives and Gnaws - Excerpt D 01 hr 49 min 58 sec - 151M. 210 - Like a Wall in Which an Insect Lives and Gnaws - Excerpt C 02 hr 00 min 24 sec - 165M. The site is in beta, maybe not everything works. Frequently asked questions. Q: Who / what is Bull of Heaven? A: Bull of Heaven is Clayton Counts and Neil Keener, with generous help from all kinds of people. We are based in Denver, Colorado. Q: How do I listen to files larger than 2 Gigabytes? Joyce pioneered modern literature through his use of stream-of-consciousness, a literary technique that lets readers get straight into the mind of the book's characters and stands in stark contrast to Ernest Hemingway's "iceberg" style of leaving things to the readers' imaginations. In his masterpiece Ulysses, Joyce explores several topics and thoughts that go through the mind of one man in Dublin for a day, and he also wrote other critically acclaimed works such as the short-story collection Dubliners (1914), and the novels A Portrait of the Artist as a Young Man (1916) and Finnegans Wake (1939). But the legacy of the work he left behind him lives on to this day. Several books and films have highlighted Tesla's life and famous works, including Nikola Tesla, The Genius Who Lit the World, a documentary produced by the Tesla Memorial Society, The Secret of Nikola Tesla, The Prestige. In 1994, a street sign identifying "Nikola Tesla Corner" was installed near the site of his former laboratory in New York.