Weaving the Warp and Weft of Occupational Therapy: An Art and Science for All Times

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This article employs a metaphor of weaving in order to analyze, both historically and critically, the art and science of occupational therapy. To spark reflection about where occupational therapy has been, is now, and would like to progress as the new century approaches, the article is thematically organized around the profession's two most fundamental convictions. These convictions are termed the warp and weft of occupational therapy. The warp of occupational therapy is defined as our philosophical belief that engagement in occupation can favorably influence health (Meyer, 1922; Reilly, 1962). The weft of occupational therapy is defined as our humanistic value of respect for the person (Yerxa, 1983). Thus, weaving the warp and weft of occupational therapy refers to the art and science of clinical practice. The metaphor of weaving a tapestry depicts the improvisational aspect of treatment in which practitioners draw upon, modify, and ultimately apply a scientific body of knowledge to enhance the life opportunities of those they serve.

To spark reflection on where we started, how we have developed, and where we would like to be going, this article offers a perspective on occupational therapy in the 20th century that emphasizes the dynamic interrelationships of practice, education, and research. A central theme is consequently that of the vital influence of our academic programs upon the work we do in daily clinical practice. Occupational therapy's oldest surviving academic program, Tufts University's Boston School of Occupational Therapy (BSOT), is presented as an exemplar of educational leadership in the profession's evolution throughout the 20th century. Interwoven with depictions of several important contributions of BSOT faculty members and alumni are the visions of many other prominent occupational therapists, as well as three stories (two true and one fictional) of persons who may be regarded as appropriate candidates for our services. The article itself may thus be viewed as a tapestry of historical facts, research findings, references to contributions of dedicated occupational therapists, vignettes, and critical analysis that is organized around our profession's most enduring convictions and that is intended to serve as a tribute to the enduring art and science of occupational therapy.

The Warp: Engagement in Occupation as a Medium for Health

The warp of a tapestry consists of those anchoring, longitudinal threads that give rise to the tapestry's core fabric. Because no weaving can proceed without these threads, the warp is rooted in tradition. Nevertheless, its precise characteristics within a single tapestry fundamentally inform the theme of that tapestry's particular fabric. In essence, the warp is simultaneously a traditional founda-
tion and a marker of the tapestry's uniqueness. For this reason, it is appropriate to regard engagement in occupation as the warp of the powerful tapestry of human potential that we call occupational therapy. For when we name and frame the problems we treat as problems of adaptation with respect to a person's ability to engage in daily occupations, we draw on the fundamental premise of our profession and simultaneously express the uniqueness of our expertise.

**Occupations** refer to those activities in which we invest our time because of the personal and cultural meaning that they hold for us (Clark et al., 1991). Some examples include bathing, dressing, and feeding ourselves or those we care for, paying the bills, cleaning the house, driving or taking the bus to work, gardening, playing the flute, reciting poetry, weaving, and worshipping. Although the outward forms of occupation change over time within any given culture, the fundamentals remain the same. That is, as first expressed by occupational therapy's founding philosopher, Adolph Meyer (1922), it is through engagement in occupation, and hence through an orchestrated balance of the daily temporal rhythms of work, rest, play, and sleep, that persons are able to solve the problems of adaptation that continuously arise in daily life.

BSOT has stood at the front lines of advancing occupational therapy's most essential and defining feature, therapeutic occupation, since its doors first opened on April 20, 1918 (Litterst, 1983a). BSOT was the first school to respond to an emergency plea from the government during World War I to send well-educated women overseas to help counteract the idleness and rebuild the morale of wounded soldiers by engaging them in crafts and other occupations (Litterst, 1983a, 1983b). The roots of the idea that engagement in occupation can be a medium for health can be traced most generally to the rise of the moral treatment movement during the 18th and 19th centuries (Bing, 1981). According to Litterst (1983b), BSOT's earliest commitment to the use of therapeutic occupation was also influenced by the popular Arts and Crafts Movement, which sought to revitalize arts and crafts to counteract the dehumanizing effects of industrialization.

BSOT's commitment to therapeutic occupation inspired its tenacity in times of great financial hardship and influenced the developing field of occupational therapy. The story of this commitment is replete with heroes. One of the most stellar was Marjorie Green, BSOT's director for three decades, who shepherded the school's transition from an independent 12-week curriculum to a 3-year program accredited by the American Medical Association and affiliated with Tufts Medical School and College (Litterst, 1984). The philosophical focus and strength of the educational program that Green and others developed is evident in the achievements of its alumni. Colonel Ruth Robinson, a 1939 BSOT graduate, was instrumental in implementing occupational therapy in the armed forces while serving as president of the American Occupational Therapy Association (AOTA) from 1955 to 1958 (AOTA, 1992). Wilma West, a 1941 BSOT graduate, was president of AOTA in the early 1960s and recipient of the 1967 Eleanor Clarke Slagle lectureship, the highest academic honor of the profession (AOTA, 1992; West, 1968). To this day, we have perhaps no more eloquent and persuasive an advocate for occupation as the core of practice than Wilma West (see West, 1984; West & Wiemer, 1991). Mary Reilly was a 1940 graduate of BSOT who went on to develop the frame of reference known as occupational behavior (Reilly, 1969, 1974). Reilly's germinal thinking about occupation substantively informed the science of occupation that emerged in 1989 at the University of Southern California and that is dedicated to developing a comprehensive understanding of humans as occupational beings (Clark et al., 1991).

However informative these developments in our history may be, they should not give the impression that occupations within the domains of self-care, leisure, play, and work have been universally and uncontroversially employed by occupational therapists as primary treatment modalities since the profession's formal emergence in the second decade of this century. To the contrary, Kielhofner and Burke's (1983) historical analysis of the field has demonstrated that for at least two decades occupational therapists have been debating over which is the most effective kind of treatment: occupation-based treatment or treatment geared toward the inner mechanisms of human functioning. At the risk of oversimplification, the issue may be most plainly described as whether it is best to treat at the micro level of performance components and subskills as defined, for example, by AOTA's *Uniform Terminology* (1989) or at the macro level of actual performance of relevant occupations within relevant living environments. With respect to considerations of functional assessment, Trombly (1993) has referred to these divergent approaches as **bottom-up** versus **top-down** approaches. Because bottom-up (or micro-level) approaches to treatment are concerned with generating the subskills assumed to be prerequisites for competent occupational performance, they tend to include more activities that are removed from patients' real-life occupations and living environments and more nonactivity-based interventions such as physical agent modalities. Because top-down approaches target the macro level of occupational functioning, they tend to be largely aligned with occupational therapy's traditional commitment to occupation as a therapeutic medium. In essence, divergent sets of working assumptions and hypotheses among practitioners regarding what works best clinically are manifest in the use of these divergent approaches to assessment and treatment (Wood, Abreu, Duval, & Gerber, 1994).

As is often the case when largely dichotomous posi-
Second, there is much agreement about the inherent complexity of occupation, regardless of whether that complexity is expressed successfully within clinical practice. Within the second half of this century, many theorists and practice models have sought to explain and therapeutically apply occupation’s complexity by recognizing the simultaneous existence of micro and macro levels of occupational functioning. Prominent examples of such theories and models include sensory integrative therapy (Ayres, 1972, 1979), the occupational behavior frame of reference (Reilly, 1969), the Model of Human Occupation (Kielhofner, 1979), the theory of spatiotemporal adaptation (Gilfoyle, Grady, & Moore, 1981, 1990), the cognitive disabilities model (Allen, 1985), and the theory of occupational adaptation (Schkade & Schultz, 1992). Additionally, the seriousness with which occupational therapists have taken occupation is apparent in the establishment of occupational science as a new academic discipline devoted to understanding the form, function, and meaning of occupation (Clark et al., 1991). Third, there is evidence of consensus within the field on the actual experience of engagement in occupation and on the importance of understanding that experience from the perspective of the person engaged. More and more occupational therapists seem to agree, at least since the time of King’s Eleanor Clark Slagle Lecture (1978), that the experience of engagement in occupation is indivisible. In other words, being actively occupied typically transcends conscious attention to the myriad subskills and inner workings that support that engagement. Yerxa (1991) expressed a variation on this idea when she contended that “persons are authors of their occupational behavior simultaneously as biological, psychological, social, cultural, and spiritual beings” (p. 201). Recognizing the experiential indivisibility of engagement in occupation, a growing number of researchers have conducted qualitative studies on the experiences of persons with severe disabilities as they orchestrate rounds of occupation over time (Clark, 1993; Mattingly, 1991b; McCaig & Frank, 1991; Suto & Frank, 1994). These studies underscore the symbolic reasons for persons’ actions as they seek to express themselves, their desires, and their philosophies in the context of daily life.

Developing a theoretical appreciation of occupation’s inherent complexity and of the experience of being occupied as a synthesized whole has important clinical reverberations. For if engagement in real-life occupations involves all of the inherent dimensions, subskills, and components of occupational performance, yet is experienced by patients as something altogether different, having to do with their particular symbolic reasons for action, then the divergence of bottom-up from top-down approaches represents a false, either-or dichotomy that should be abandoned in lieu of more integrative therapeutic approaches. Of relevance here is contemporary dialogue and research that has suggested that a wide variance in performance abilities in real-life occupations cannot be explained by the status of, or by improvements in, performance components at the micro-level of occupational functioning (Trombly, 1993), Neistadt (1994), for example, reviewed a body of clinical research that cast considerable doubt on the assumption that persons with diffuse brain injuries are capable of transferring learning accrued through remedial exercises (such as puzzle assembly, computer exercises, or perceptual and cognitive work sheets) to their performance of real-life occupations. Neistadt suggested that remedial retraining for such patients may actually deprive them of needed repetitive therapeutic engagements in daily home and community-based functional activities. Moreover, for patients with relatively intact abstract reasoning abilities who have the potential to transfer learning from remedial exercises to real-life occupations, explicit training in how to do so must occur if that potential is to be realized.

It is perhaps not surprising, therefore, that many contemporary therapists are embracing the use of assessments and interventions that unambiguously target their patients’ levels of real-life occupations yet simultaneously address impaired or problematic components of their occupational performance (Abreu, 1994; Fisher & Short-DeGraff, 1993; Rogers & Holm, 1991; Trombly, 1993; Wood et al., 1994). In these approaches, practitioners may be thought of as continually traversing back and forth between the micro and macro levels of occupational performance while using, whenever possible, occupations and occupational tasks that are meaningful to the patient’s perspective. Moreover, practitioners are constantly seeking to present such occupations and occupational tasks within relevant physical and social environments that fit patients’ particular ability levels. The emergence of such approaches fully embraces the complexity of therapeutic occupation and thereby suggests an important step toward progressing the debate over treatment methods.

Looking back at occupational therapy within the 20th century reveals that the warp of the profession, that is, the idea of occupation as a medium for health, has catalyzed and given shape to the profession’s growth through a dynamically interactive confluence of clinical, educational, and research perspectives and initiatives. The sophistication with which occupational therapists
now understand human occupation has grown monumentally, often as a result of internal debate. Moreover, this growth has had enormous bearing on both the profession and society at large.

Yet the question remains: Has occupational therapy become one of the great ideas of 20th century medicine? Reilly (1962) believed and hoped that it could be precisely because of therapists' understanding of the value of occupation as a therapeutic medium? At this point, it seems that a far longer perspective of time is needed to answer a question of such magnitude. What is apparent within the present health care arena, however, is the growing awareness of the value of occupational performance (or, as it is most generally termed, of functional status), as a valid indicator of the ultimate effectiveness of medical care (Granger, Hamilton, & Sherwin, 1986; Kane & Kane, 1981; World Health Organization, 1980). In at least one respect, therefore, occupational therapists have every reason to be proud of our long-standing record of having recognized the centrality of meaningful occupation to the quality of people's daily lives.

Yet even as more health care professionals join our ranks in recognizing the need to focus directly on the real-life and truly formidable adaptive challenges that persons with disabilities inevitably face, occupational therapists still confront daily the devastating consequences of occupational deprivation brought on by persons' disabilities, their living environs, and the interactions of the two. I have therefore chosen to close discussion of occupation as the warp of occupational therapy with the story of a patient I once saw, because I believe that it is symbolic of those countless everyday occupations that, if only therapeutically understood and presented, could help maintain the fabric of life for those with disabilities.

Betty's third admission to the hospital was, as in the past, for the purpose of adjusting her medications so that her daughter might keep her at home despite the progression of severe memory impairment and agitation. Betty, a former beautician, had been diagnosed with multi-infarct dementia for many years, and was known on the unit as a "screamer." She never seemed to remember that her husband, Richard, had died years earlier, or that she must telephone Richard to tell him that dinner was distributed medications and I had another appointment. For the entire hour that I had been with her, Betty had been calm and focused upon the tasks at hand, transported back to a time when her life had meaning and an internal cohesion and dignity all its own. Yet within minutes of her return to the bolted chair, she began to scream for Richard. Betty was given a provisional dose of Haldol (haloperidol) in anticipation of the evening to come.

The Weft: Respect for the Person

No tapestry is complete with just its warp. Although the warp provides the anchoring foundation, it is the weft, or the colored threads that fill in this foundation as they are delicately woven in and out by hand, that gives the tapestry life. When I say that the weft of the tapestry of human potential that we call occupational therapy is our value of respect for the person, I mean that if we are to breathe life into the promise of our service, then we must incorporate our patients' experiences, beliefs, values, and motives within treatment. Occupational therapy was, after all, built upon the recognition of visionaries such as Eleanor Clarke Slagle and William Dunton that therapists had to mobilize their patients' interests and real-life responsibilities if therapeutic benefits were to accrue (Bing, 1981; Dunton, 1928). Our historic value of respect for the person is therefore not only a humanistic principle, although it is certainly that; it is more fully an ethical guideline for practice to ensure that our treatments work. Reilly (1962) consequently concluded in the early 1960s that practitioners had inherited a powerful hypothesis of occupational therapy from the profession's earliest advocates that explicitly tied our value of respect for the person to the promise of our service. As we know, Reilly (1962) formulated the hypothesis "that man, through the use of his hands, as they are energized by mind and will, can influence the state of his own health" (p. 2).

If Reilly's hypothesis is correct, and I am convinced that it is, then engagement in meaningful occupations has a kind of multiplicative impact, not merely an additive one, upon a person's state of health. As Bateson, the
Betty, the patient mentioned earlier, pursued an occupation that was energized by her mind and will, she doubled, perhaps even tripled or quadrupled, her ability to function as a person at a given moment in time. This occurred precisely because the occupation reconnected her with the deeper truths of her life: her marriage to Richard, her work as a beautician, her pride in both. Betty was thereby able to transform herself from just another document that effectively revealed the complex and usually unscen dynamics of the therapeutic process. From my vantage point, one of the study’s greatest contributions was its explication and validation of occupational therapy’s practice of applied phenomenology. The term applied phenomenology was suggested by Mattingly (1991a) to describe how occupational therapists walked into patients’ personal worlds in order to understand the meanings that patients ascribed to their illnesses and to other life experiences. Fleming (1991) went on to elucidate the kinds of reasoning processes that occupational therapists used to base treatment on a deep empathy with whom their patients had been and were presently, so that they could then steer their patients in the direction of whom they might optimally become. To validate how pivotal the practice of applied phenomenology is to the practice of good occupational therapy, one of the study’s recommendations was that if we, as practitioners, are to individualize treatment so that it will be optimally useful to patients, then we must take our phenomenological tasks far more seriously than we generally do (Mattingly, 1991a).

In sum, developments in clinical reasoning over the past two decades not only fundamentally link current practice with our historic value of respect for the person but also lead us into the future with a specific moral directive pertaining to that value. By encouraging us to take our phenomenological tasks more seriously, researchers in clinical reasoning also implicitly urge practitioners to do whatever is necessary to ensure that patients actually tell them their true stories. In the following excerpt, a young gay man describes his teenage years when he very well might have been treated by an occupational therapist. It is included to raise the question of whether our clinical settings offer the kind of informed, safe, and accepting environment that is necessary if everyone’s story is to have a reasonable chance of being told.

Three years after Rogers’ (1983) address, BSOT spearheaded the clinical reasoning study that was sponsored jointly by AOTA and the American Occupational Therapy Foundation from 1986 to 1988 and then went on to establish the Institute for the Study of Clinical Reasoning at Tufts under the direction of Maureen Fleming in 1989 (Mattingly & Gillette, 1991). The study itself integrated ethnographic and action research within an innovative design that effectively revealed the complex and usually unscen dynamics of the therapeutic process. From my vantage point, one of the study’s greatest contributions was its explication and validation of occupational therapy’s practice of applied phenomenology. The term applied phenomenology was suggested by Mattingly (1991a) to describe how occupational therapists walked into patients’ personal worlds in order to understand the meanings that patients ascribed to their illnesses and to other life experiences. Fleming (1991) went on to elucidate the kinds of reasoning processes that occupational therapists used to base treatment on a deep empathy with whom their patients had been and were presently, so that they could then steer their patients in the direction of whom they might optimally become. To validate how pivotal the practice of applied phenomenology is to the practice of good occupational therapy, one of the study’s recommendations was that if we, as practitioners, are to individualize treatment so that it will be optimally useful to patients, then we must take our phenomenological tasks far more seriously than we generally do (Mattingly, 1991a).

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When I was a teenager in high school (heck, all the time I was growing up), I longed for someone to help me learn. To help me learn and fit in. To help me acknowledge myself and not be afraid of myself. I longed for that so much, yet never received it. Finally out of desperation, I tried something that had worked for others. Suicide. It’s everywhere. The television. Newspapers. Radio. People, etc. Isn’t it sad, I couldn’t find the information or support to help me come in contact with who I was, but I could find the information to end my life. I must have tried at least 20 times from the years 1985 to 1989. The last time I almost lost me. At the time I didn’t care. I wanted to die. I couldn’t cope anymore. Being locked up within myself. Not knowing why or how these things happened, or who to talk to about it. Where to go for understanding, information, and help, etc., to find out if in fact I was gay and if so, for some support in dealing with it, and how to. I was in an all-living hall for 5 years of my life, each year getting stronger and stronger in trying to end it, until I almost achieved my goal. Well, I’m glad I did not succeed. I just wish that there would have been something out there for me. ("Friends of Project 10," 1989, p. 14)

This young man’s story poignantly underscores the observation that as human beings, we often transform inner experiences of our sexual orientation, gender, race, ethnicity, religious beliefs, social class membership, work affiliation, ability, and status, among countless other possibilities, into compelling symbolic themes that fundamentally inform which occupations we pursue, how and
when we pursue them, and with whom we pursue them, over the course of entire lifetimes. This teenager's growing sense that he was gay resulted in such extremes of social isolation and internalized shame that he became obsessed with the sordid job of suicide. With help, however (and it might have appropriately come from an occupational therapist), he instead could have been supported through health promoting activities offered by lesbian and gay youth groups, educational studies, parent support groups, or religious organizations that would have offered safe and accepting environments in which to explore the legitimacy, or lack thereof, of his belief that he was probably gay.

Granting fully equitable admission into our practice arenas for all persons can be accomplished through neither denial of nor passivity about our differences from one another. Rather, as suggested by two special issues of the American Journal of Occupational Therapy, one on cross-cultural perspectives and the other on feminism as an inclusive perspective, occupational therapists must commit to active acts of learning if we are to respect and therapeutically marshal all of our patients' individualities (Evans, 1992; Froehlich, Hamlin, Loukas, & MacRae, 1992). It is by paying keen attention to patients' narratives that contemporary occupational therapists grasp the meanings that patients ascribe to their lives and to the therapeutic process (Helfrich, Kielhofner, & Mattingly, 1994; Helfrich & Kielhofner, 1994). As a new century approaches, one of unprecedented awareness of multiculturalism and human diversity, it is both timely and promising that our historic value of respect for the person has progressed this far.

Weaving the Tapestry in Practice

To bring the themes of this article more fully into the realm of clinical practice, I turn to McMurtry's (1993) novel Streets of Laredo. In this novel, McMurtry revisits the famous Texas range of the late 1800s. Captain Woodrow Call, now an old man with failing eyesight and arthritis, who is nevertheless on the trail of a young sadistic murderer. It turns out to be Captain Call's last ride as he loses an arm and leg, and nearly his life, to bullets from the murderer's rifle. McMurtry wrote of Call's survival:

The Captain could not imagine what he was going to do in the years ahead. He would have to live, but without himself. He felt he had left himself far away, back down the weeks in the sun and the rain of Fort Stockton where he had been wounded. He had saddled up, as he would have on any morning. He had ridden off to check two horses, as he would have on any morning, as he had ridden on thousands of mornings throughout his life. He had been himself, a little stiff maybe, his fingers swollen, himself. He scarcely heard the gunshots, or felt the first bullet. That bullet and the others hadn't killed him, but they had ruined him. Now there was a crack, a kind of canyon, between the Woodrow Call string on the train and the Woodrow Call who had made the campfire that morning and saddled his horse. The crack was permanent, the canyon deep. He could not get across it, back to himself. His last moment as himself had been spent casually—making a vampire, drinking coffee, saddling a horse. Then the wound-splint him off from that self, that Call—he could remember the person he had been, but he could not become that person again. He could never be that Call again. That person—that Call—was back down the weeks, on the other side of the canyon of time [italics added]. (McMurtry, 1993, p. 565)

Although the story is fictional, it holds poignantly captured truths. Occupational therapists walk each day into Woodrow Call's canyon of time. Our humanistic value asks that we walk there on a foundation of respect for the Woodrow Call who has been, so that we might reconnect that person with the Woodrow Call who can be. Our philosophical belief asks that we offer therapeutic occupations that are, from Call's vantage point, meaningful threads capable of weaving together his past, present, and future.

Nevertheless, I have seen occupational therapists litter Captain Call's canyon of time with the debris of demands that reflect our need to exert ultimate control over the treatment process while offering really only the pretense of control to our patients. In adult and geriatric rehabilitation, the areas with which I am most familiar, we start by measuring patients with objects that they have never seen and do not understand, often requiring that they sit quietly while we do so. We then co-opt them with an odd mixture of authority, humor, and warmth into "choosing" to invest their valuable time repetitiously assembling children's puzzles, stacking plastic cones, placing pegs in holes, or lifting sticks, among other chores that they will never do again once discharged from our service. Nor will we ever dare move them beyond such chores into confrontation with the inevitable adaptive challenges that await them. And because the Functional Independence Measure, or some other tool, is influencing reimbursement rates, we routinely impose treatment for personal care skills, whether our patients want it or not. The result for us is burnout, as the patients whom we genuinely wish to help increasingly regard occupational therapy as a poor cousin to their real therapy that goes on down the hall and in the gym. The result for patients is of greater consequence, however, for they have lost what may be irretrievable opportunities to construct their futures with the benefit of our expertise.

Yet I have also seen occupational therapists work collaboratively with the Woodrow Calls of our time in building bridges of reality and hope across the schisms of their lives. We have done so by maintaining our identity and integrity as occupational therapists, documenting progress in terms of functional competence in daily life that define our service, that are welcomed by third-party payers, and that have meaning to those we directly serve. As our patients' expert coaches and trusted friends, we have helped the young mother feed, bathe, and play with her baby once again despite cortical blindness and apraxia caused by a cerebral aneurysm; we have helped the professional model resurrect his business degree by...


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