Before proposing what clinical reasoning is, I want to consider what clinical reasoning in occupational therapy is not or, at least, what it is more than.

**Clinical Reasoning is More Than Having a Reason**

Sometimes occupational therapists speak of clinical reasoning as the ability to give a reason for a clinical decision. But clinical reasoning is not necessarily equatable with the capacity to offer explicit reasons for action because, as Polanyi (1967) argued so well, even in science, we know more than we can say. Benner (1984), Dreyfus and Dreyfus (1986), and Schön (1983, 1987) are among those who have written extensively about the tacit nature of professional expertise. Although the ability to verbalize one’s practical knowledge is advantageous, such knowledge is often embodied (i.e., known in a bodily way) through our hands or our eyes and is difficult to translate into words. Words always fall short of practice.

The gap between what we can say and what we know may actually grow as we gain professional expertise. As we become socialized into a professional culture, much of our expertise becomes embodied in habitual ways of seeing and dealing with patients. In any culture, much of the knowledge of the members comes in the form of habits, which provide each member of that culture with automatic responses. Much of the fluidity and ease that we associate with the competent, experienced professional is a result of knowledge that has become habitual and automatic, that is, the professional does not have to stop and think of what to do next. The stop-and-start motion of the novice occurs, however, because at this stage, he or she does not know very much more than he or she can say. By contrast, an expert can think while doing, barely noticing the thinking process that is guiding the doing. Benner (1984) described the process of the development of professional expertise as a movement from more explicit, verbally based knowledge, which is characteristic of the novice, to highly tacit and embodied knowledge, which is characteristic of the expert.

An example of tacit knowledge at a societal level is our knowledge of grammar. Most of us cannot provide many grammatical rules to explain why we speak the way we do. Beyond the complexities of adjectives and adverbs, many of us cannot elucidate the rules governing our language use. Yet, this inability to define such rules does not prevent us from using these rules with extreme competence and few errors. What may sound like linguistic error in the adult is nearly always a cultural variation, such as black English, which is spoken with equal rule-governed competence but which follows a somewhat different syntactical structure than standard English. Yet no native speakers, unless they are linguists, have command of the rules that would allow them to give explicit reasons
Clinical Reasoning is More Than Applied Theory or Applied Science

Occupational therapists sometimes speak of clinical reasoning as the application of theory to practice. A grounding in theory is essential for expert practice but does not guarantee such practice. It is what philosophers speak of as a necessary but insufficient condition for bringing about an effect. One cannot do without such a grounding, but it alone, will not yield good clinical interventions, because theoretical reasoning differs from practical reasoning.

Theoretical reasoning is concerned with the general, with what one can reliably predict will hold true in any specific case or what will give useful insight into a broad range of particular situations. At the far end, scientific reasoning is the paradigm case of theoretical reasoning, because it is concerned with the discovery of universal relationships, especially universal laws, such as Newton’s laws of physics. A good theory is useful because it gives us insights into a myriad of situations, allowing us to see a particular situation as an instance of some general category or as caused by some general condition that the theory explains. Solid theoretical knowledge of neuroanatomy and physiology, for example, tells us in quite accurate empirical detail what kind of physical damage we can expect to see when someone has sustained an injury to their spinal column and what of that damage is likely to be permanent. Because this is general knowledge that holds true regardless of the particular patient, it allows us to speak in great detail about a situation we know little about in terms of contextual specifics. This is the kind of knowledge that can be gained effectively from textbooks.

The model of scientific reasoning has guided most research on clinical reasoning in the health professions. Here, clinical reasoning is treated as applied natural science. This perspective presumes that professional reasoning is a comparatively straightforward application of a knowledge and theory base—practical action applies theoretical knowledge. When occupational therapists equate clinical reasoning with the capacity of a therapist to give a reason for any particular intervention grounded in occupational therapy theory or in generally accepted medical knowledge, they are operating with this understanding of practical knowledge.

This view of clinical reasoning is also congruent with the way professional knowledge is generally understood across professions. Professional knowledge is usually characterized as applied theory (see Schön, 1983, 1987, for a more detailed discussion of this point). In the medically related professions, it is characterized as applied natural science (Elstein, 1976; Kassirer & Gorry, 1968; Kassirer, Kuipers, & Gorry, 1982). Medicine is conceived of as a diagnostic science in search of the hidden causes of observable symptoms and signs (Feinstein, 1973). The assumption that clinical reasoning is applied scientific reasoning underlies nearly all research on clinical reasoning in medical fields and the informal perception of occupational therapists, at least when speaking in a biomedical language.

Scientific reasoning is intended to link the concrete particular with the abstract general, ascending to the general in the mode of logical abstraction, to cite Bruner (1990). Classically, the physical and biological sciences have been understood as involving the discovery of general causes (ideally, universal laws) which, being general, can be predicted to produce certain effects. The presence of universally or probabilistically applicable cause-and-effect relations is critical for a strongly predictive practice where effects of interventions can be anticipated and controlled. This, of course, is the powerful form of explanation most fully developed in the physical sciences. In explaining particular symptoms and signs by referring to an underlying disease, the clinician is explaining the particular by the general, revealing how particular manifestations have been caused by general law-governed physiological processes. It is not surprising that this scientific model of explanation, when introduced systematically into medicine during the 18th and 19th centuries, produced a medical revolution. In medicine, the scientific task for clinical reasoning has been defined as the discovery of causal relations between symptoms and underlying diseases. In occupational therapy, there has also been an equation of clinical reasoning with initial assessment, perhaps because this is the clinical task most closely aligned with medical diagnosis.

Clinical reasoning has primarily been associated with diagnosis in the medical professions because within medicine, the essential clinical skill for the professional has been the ability to investigate the particular signs and symptoms evinced by a patient (which may be felt and experienced in unique ways by different patients) and to treat them as cues to a deeper level of reality, the pathology. This identification allows the professional to extract from his or her repertoire of treatment interventions those scientifically proven to be effective in treating this disease state.

The concern to link the idiosyncratic particular with a general law or state of affairs (such as a disease category) is related to a concern for effective intervention. If professionals can come to recognize general processes underlying particular cases, then general techniques can be designed to change those processes in predictable...
ways. Certainly some medical interventions work in this way. For example, if the physician learns to recognize a unique set of aches and pains as appendicitis, then he or she can perform a standardized procedure with predictable success. This procedure can be learned and applied to a 60-year-old patient in Hong Kong or to a 15-year-old patient in Cincinnati with little variation and similar results. Analogously, certain aspects of occupational therapy practice can be standardized because certain aspects of occupational dysfunction can be predicted to follow from certain pathological conditions. Rogers and Masagatani (1982) found in their research on clinical reasoning in occupational therapy that the medical diagnosis was the most critical factor influencing how therapists assessed their patients. The therapists who were studied in the American Occupational Therapy Association (AOTA)/American Occupational Therapy Foundation (AOTF) Clinical Reasoning Study also used the medical diagnosis as an important organizer in developing their treatment plans. They linked medical diagnoses with generally expected dysfunctions, and these dysfunctions, in turn, pointed them toward certain treatment activities and procedures. To know a person's pathology was to be able to predict with high probability what physiological difficulties one would encounter. To be able to predict dysfunctions meant that the therapist could also predict what interventions would improve the body.

Clinical reasoning, treated as applied natural science, is reasoning directed to the practical problems of prediction and control; it is a type of instrumental reasoning. From an instrumental perspective, it is assumed that the professional's expertise is in his or her capacity to identify and put to use the best means for achieving given ends. The professional's expertise is not in identifying those ends (e.g., better health through cure of disease), but rather, in achieving them. The professional is better able to predict what will follow from certain conditions (e.g., the disease process given current symptoms) and from certain interventions used to control the future (e.g., the effect of certain medications on the disease process). Instrumental reasoning is considered to be value-neutral concerning the best means for attaining given ends. Ends can be clearly and explicitly given prior to the reasoning process. Although the ends are treated as subjective givens (e.g., good health) identified by the values of the actor and are not considered something one can reason about (because they are subjective and value-laden), means can be strategically and neutrally identified for reaching those given ends. If clinical reasoning is defined as a form of instrumental reasoning, it is presumed to be reasoning about how to best reach explicit ends.

Instrumental rationality is derived from a positivist understanding of practical knowledge (Schön, 1983, 1987). Schön described this dominant paradigm of professional rationality:

Technical rationality is an epistemology of practice derived from positivist philosophy...[it] holds that practitioners are instrumental problem solvers who select technical means best suited to particular purposes. Rigorous professional practitioners solve well-formed instrumental problems by applying theory and technique derived from systematic, preferably scientific knowledge. (p. 4)

Perhaps the clearest analogy is the reasoning involved in solving a puzzle, which is an analogy that Thomas Kuhn (1962) used in describing the reasoning of physicists. A puzzle presents a simple world with comparatively few features that need to be attended to and with one correct answer that shows itself to be correct once it is found. Clinical reasoning within a biomedical frame is like puzzle solving, in that a clearly identifiable correct answer exists (e.g., a pathology, a cluster of physiological deficits), and the player's task is to find that answer.

Given the power of theory and the dominance of the traditional biomedical model of clinical reasoning as applied to natural science, why do therapists say that theoretical knowledge of occupational therapy frames of reference, the biological sciences, and even therapeutic techniques provide an insufficient guide to good practice? Why does the exasperated supervisor still exhort the student to "trust me" or "watch me" rather than reciting the relevant techniques, rule, or theoretical concepts to explain his or her action? What, in other words, makes practical knowledge different from textbook knowledge or school-learned technical skill?

Clinical reasoning in occupational therapy is directed toward action. It is much closer to Aristotle's (1985) ancient notion of practical reasoning than it is to diagnostic reasoning or applied science as understood in positivist terms. Practical reasoning, in the Aristotelian sense, results in action. But figuring out how to act is more than an instrumental skill. It involves deliberation about what an appropriate action is in this particular case, with this particular patient, at this particular time. This is no mere technical question. Aristotle associated the expert practical actor with a virtuous actor, one who is able to see rightly how to act in a given situation. Aristotle gave the simple examples of getting angry at someone or giving money to someone. Even these apparently simple actions require an expertise that is more like wisdom (what Aristotle called intelligence) than mere competence, because they require the actor to ascertain what the right action should be in a given case. In Nicomachean Ethics, Aristotle wrote:

So...getting angry, or giving and spending money, is easy and anyone can do it; but doing it to the right person, in the right amount, at the right time, for the right end, and in the right way is no longer easy, nor can everyone do it. Hence [doing these things] well is rare, praiseworthy, and fine. (p. 51)

If this is true of lending money, how much more true is it for the therapist who is assessing whether teaching a recent stroke patient to dress himself is the right thing to be doing on a given day? The therapist must assess
whether such teaching is being done in the right way, at the
right time, and with the right patient. Whereas theory
directs us to what is generally true, action always occurs in
a unique context. The very power of theory is its general-
izability, but this is also its drawback. Any particular situ-
ation is always more subtle, always in some way new. Given
the complexities and idiosyncrasies of the concrete case,
any theoretical knowledge is bound to be crude and ap-
proximate, giving a starting place but not a rule book for
action. When therapists speak of individualizing treatment,
they are recognizing the same point Aristotle noticed
about good practical action—that there is always a need for judging and improvisation in moving from
general heuristics and rules of thumb to the requirements
of a particular situation.

But there is an even more fundamental feature of
clinical reasoning in occupational therapy that distin-
guishes it from applied science. Aristotle (1985) argued
that a major part of practical reasoning includes reason-
ing about the nature of "the good" in a particular case. It
requires that one move from general considerations
about the good to a judgment about what the best good
for a given situation is. For Aristotle, the good is not fixed
in the way that our scientific knowledge is: "What is good
and healthy for human beings ... is not the same, but
what is white or straight is always the same" (p. 157).

The model of professional reasoning treated as applied
science presumes that the work of the practitioner is simply
to identify which means (including techniques) will best get
him or her to the ends that he or she requires, hence such
thinking is often referred to a means–ends rationality or
technical rationality. The ends, the final goal, what Aristotle
(1985) calls "the good," is not what scientific reasoning is
designed to consider. In medicine, when this good comes
into question (e.g., Should a dying patient be kept on life
support systems?), it is viewed in the medical profession as
a problem of ethics, which is distinguished from a problem
of clinical reasoning.

Aristotle (1985), however, made no such distinction.
He linked expertise in rational calculation (i.e., assessing
the best means to achieve the good) with intelligence at
discerning what the best good in a situation might be. He
connected the need to assess the particular situation, the
ability to calculate, the need to discover the best good in a
particular context, and the critical role of experience as
well as general knowledge in doing so. In a brilliantly
succinct passage, he stated,

The unconditionally good deliberator is the one whose aim ex-
presses rational calculation in pursuit of the best good for a hu-
man being that is achievable in action. Nor is intelligence about
universals only. It must also come to know particulars, since it is
concerned with action and action is about particulars. Hence ... some people who lack knowledge but have experience are better
in action than others who have knowledge. (p. 158)

In all professions, professionals can sometimes sim-
ply engage in a process of technical reasoning, because
the ends are not up for question. The airline pilot, for
example, need not reconsider whether he or she really
ought to fly to Washington, DC, if many of the passen-
gers would much prefer Rio as their final destination. Nor does
the pilot face the additional problem of calculating where
to get the extra gas because a much shorter trip had been
planned initially. Depending on one's perspective, occupa-
tional therapists are either more or less lucky. They do
often have the problem of reassessment while en route.
Their is a complex practice in which they must recon-
sider and recalculate, often while in the midst of a treat-
ment session.

Sometimes reassessment takes a dramatic form. But
in a small way, it is inextricably interwoven into each
choice a therapist makes in a session with a patient. The
following example illustrates this point.

A pediatric therapist is working with a child who is
performing an activity improperly. She must decide how
much to correct the child. Here is the interchange be-
tween therapist and child, as recorded in ethnographic
field notes:

Therapist: You know how to make a square, right?
Patient: Circle! Square!
Therapist: Uh oh, we're losing our square. [The patient seems to
be veering from square to circle.]
Patient: Is that better? [The patient continues drawing a circle.
]Therapist: Much better.

What has just happened here? The therapist decided
to correct the patient the first time and then not to cor-
rect, but rather, validate, the patient the second time. The
therapist was asked after the session how she learned to
decide when to correct a patient and when not to. She
said:

It's something you learn by trial and error, by reflecting on the
sessions that went badly afterwards and trying to isolate what
went wrong and correcting for that the next time. In correcting a
child, you have to set your acceptable limits, have an idea of the
child's limits, what you'll accept for now, what you think they can
do. As you get to know them, you learn what they can tolerate,
how much they can stand to be corrected, and how much you
have to let go for now. It varies with the kid. With some, there's
always a contingency plan: "OK, live more, then we'll do some-
thing else."

The above example comes from the AOTA/AOTF
Clinical Reasoning Study. In this study, we found that
therapists described such reasoning in peripheral terms,
as a critical but intuitive and a theoretical aspect of prac-
tice. The therapist in the above example described it as a
"trial-and-error" process. It becomes evident, however,
that the considerations involved in making this kind of
small decision are quite elaborate. In the above example,
the therapist had to refer tacitly or explicitly to a number
of theories about the child in answering questions such as the
following: What are the child's limits for this task? How
much can the child stand to be corrected? How much do I
have to let go for now?
The therapist’s reasoning in answering such questions is based on at least five domains of knowledge: (a) her understanding of the patient’s inner world of motivations, commitments, and tolerances; (b) her assessment of the environment in which the task is taking place; (c) her knowledge of the child’s physical and cognitive deficits and capacities and her knowledge of how to intervene with a child who manifests these dysfunctions; (d) her reading of the nature of the therapeutic relationship she has created thus far with the child and what this will allow her to ask for; and (e) her goals for the child both in the session and over a longer period that would help her judge which treatment activities she should strongly encourage the child to work hard at and which she should just “let go for now” if they appeared difficult.

This theoretical structure becomes further refined and even more elaborate in times of trouble, times when the therapist’s decision does not give him or her the anticipated results. The therapist in the example above is clear that much of her learning comes from past problems. However, what she characterizes as a trial-and-error method appears on closer examination to be more systematic. What she tries is driven by theories about the patient and what the patient can handle; she is not merely experimenting randomly.

Such clinical judgment becomes extremely fine-grained and necessitates an ongoing reading of subtle cues from the patient. Even the analysis I have given of the reasoning process this therapist engaged in is cursory; it would not be difficult to continue to excave other layers of her judgment grounded in a knowledge base of theory and experience that she drew on to make a decision about what to do on one Tuesday morning with her enthusiastic, errant patient.

This microlevel process of clinical judgment is almost invisible to the practicing therapist. It simply becomes part of a largely tacit thought process, a habituated expertise that allows the therapist to pay attention to relevant cues and unconsciously shift therapeutic interventions in response to them. The therapist in the above example probably was unaware that she was making a decision at all; she was certainly surprised when I asked her to explain why she had decided to correct the child the first time but not the second. Yet this sort of clinical problem is likely to recur a dozen times within a single treatment session. Clearly, even ordinary clinical reasoning involves a level of complexity that practicing therapists themselves are often unaware of when they are busy trying to get from one patient to the next and to do a reasonably competent job.

Putting It All Together: Clinical Reasoning as Interpretive Judgment

The view of clinical reasoning as applied biological science may explain much of the reasoning of physicians, but it is an extremely problematic model when applied to occupational therapy. Even in medicine, the model of clinical reasoning as applied biological science concerned with diagnosing disease leaves out much of what physicians actually address and think about (Mishler, 1984). Medical anthropologists who criticize this model argue that it is based on a belief in a definite, unproblematic empirical reality—a simple world of directly observable facts. Anthropologists have labeled this the “empiricist theory of medical language” (Good & Delvecchio-Good, 1980, p. 167).

The alternative perspective that I propose here treats clinical reasoning in occupational therapy as primarily directed not to a biological world of disease but to the human world of motives and values and beliefs—a world of human meaning. Occupational therapists’ fundamental task is in treating what medical anthropologists call the illness experience (Good & Delvecchio-Good, 1980; Kleinman, 1988). The illness experience refers to the meaning that a disability takes on for a particular patient, that is, how disease and disability enter the phenomenological world of each person. Clinical reasoning, taken in this sense, becomes applied phenomenology. (See Mattingly, 1991, for further discussion of this perspective in a somewhat different vein.)

The extent to which occupational therapists consider issues of meaning quickly became evident in the Clinical Reasoning Study. The therapists that we studied often became involved in a host of problems surrounding chronic illness and disability that their patients viewed as profound. The most ordinary and simple of tasks—eating lunch with an adaptive fork, moving a checker piece with a mouth stick, navigating a wheelchair down a hospital corridor—often triggered deep reactions from patients as they confronted bodies that would never be the same as they once were. As every practicing therapist knows, designing a successful treatment process for a patient goes far beyond grading tasks to increase motor and cognitive skills. It involves creating therapeutic experiences in which patients must deal with very imperfect bodies, often with dying bodies, and still find some reason to struggle for a meaningful life. This is an important clinical task, one that therapists sometimes hoped to avoid but seldom could. Even the therapists who hoped to treat a hand or a memory deficit often found themselves treating much more because the patient had not just injured a hand or suffered a brain lesion but, in the process, permanently disrupted an entire life. Even when it was not written into the treatment plan, therapists found themselves having to help patients find some reason to continue doing their hand exercises or to bother to get up in the morning and dress themselves. It appeared that this level of clinical problem was both commonplace and fundamental in occupational therapy practice. This meant that activities like toilet transfer were seen by therapists not just in terms of skill building but also in light of the patients’ experiences
of losing old capacities and orientations in the world and of the meaning of their learning new ways of orienting themselves.

Before he died, the anthropologist Robert Murphy (1987) wrote an autobiographical account of his own illness experience, a degenerative disease caused by a spinal cord tumor that had left him paralyzed from the neck down. He noted the difference he experienced between his treatment by neurologists and by rehabilitation specialists. He was struck with the irony that neurosurgery and clinical neurology were among the most prestigious medical specialties, whereas rehabilitation medicine ranked among the lowest. The irony was that neurology, as Sacks (1984) also noted, is a passive science because neurologists can only examine and diagnose. Rehabilitation, conversely, is an active science in which both patient and therapist work together to discover the patient’s real limitations and to continually try to transcend those limitations. Because of the problems occupational therapists tackle, they deal not only with physical ailments but also with the patients who have them.

Murphy (1987) experienced rehabilitation therapy as a kind of game in which therapists were “urging, cajoling and nagging” (p. 50) him and his fellow patients to push harder than they felt able and in which “today’s painful overreach may become tomorrow’s routine accomplishment” (p. 50). In rehabilitation, patients are very much involved in their own recovery. They must claim their disability rather than separate themselves from it. The powerful autobiographical accounts given by vivid and informed writers like Murphy and Sacks (1984) about their own experiences of disability, as well as the everyday talk of patients to their therapists, emphasize the assault to one’s sense of identity that deep injury to the body causes. To become disabled is to become disembodied—an alienation from one’s own body. Therapists’ efforts are directed, in part, toward a patient’s reembodiment—a reclaiming of the body—and this involves helping the patient to articulate a new sense of self.

The phenomenological body is one that therapists encounter repeatedly in attempting to carry out their practice with real patients. The therapists we studied were drawn into the phenomenological world of their patients by the way they worked with them. The meaning that the patient ascribed to an illness entered directly into the therapeutic process, because this process is built on a practice of “doing with” the patient. This required therapists to devise treatment goals that were meaningful enough to the patients that they were motivated to work hard as partners in the therapeutic process. The therapists thus found themselves constantly confronted with the interpretive task of translating between their way of seeing and the patient’s. If the goals the therapist pursued were too far afield from the patient’s perception of their functional needs, therapy was likely to be stalemated.

Therapists also continually referred to their interpretations of patients’ meanings to modify treatment directions or attempt to persuade patients to see their disability in a different light. They often saw possibilities where patients saw none and commonly attempted to help patients fight despair and passive resignation in the face of their disabilities.

Murphy (1987), commenting on his own resistance to therapy and his enormous depression as he faced a deteriorating body, noted that “[rehabilitation] therapists must breach imposing psychological barriers to reach their patients and enlist their cooperation in the long tedious process of reconstructing their bodies” (p. 54). Effective therapy requires that patients be committed to a long path where gains are so slow they are difficult to perceive or are countered by a faster rate of deterioration. This means that therapists must address the problem of motivation. They must tap into commitments and values deep enough within patients to commit them to such a process. No matter what the technical and physiological expertise and orientation of the therapist or what practice theories he or she relies on, effective collaboration requires treatment of the disability as more than a biomechanical issue that can be separated from the patient’s experience.

In the hospital setting, where patients are not in the middle of ordinary lives, doing with patients often means having patients care for themselves as much as possible. Occupational therapists in the Clinical Reasoning Study often told us, “Nurses do for patients. We help patients do for themselves.” “Good nurses” were defined as those with the patience to let the patient do what he or she can. Doing with patients also means having patients practice exercises in the hospital during the times when they are not being seen by the therapist. Patients are asked to take an active role in their treatment, in contrast with the more passive role that they generally assume as patients.

Even when therapists would like to ignore the patient as a whole person, the cooperative nature of the practice compels them to acknowledge the patient’s meaning world at some level in order to devise strategies for inducing the patient into taking the therapy seriously. Clinical reasoning in practice means reasoning not only about what is wrong and how to fix it but also about how to engage the patient in that fixing process. This, in turn, necessitates that therapists understand enough about the meaning of the disability from the patient’s perspectives to develop a shared account of what fixing the problem could amount to in terms of their lives. Even therapists who prefer to avoid delving into a patient’s life and try to restrict their practice to more narrowly construed physiological problems find themselves taking on the whole person, because the quest for collaboration makes this unavoidable. If therapists cannot succeed in getting the patient to collaborate with them, they may discontinue treatment. For example, one therapist told the staff in a
planning discharge meeting, "If Leo doesn't make some treatment goals, I'm going to discontinue therapy." If therapy is going to work, patients must form an alliance with the therapist and agree to play their part in the therapeutic effort.

But if clinical reasoning in occupational therapy is fundamentally applied phenomenology because therapists treat disability as an illness experience that radically alters a person's life, then the model of clinical reasoning as applied biological science must be modified. Perhaps the most important misfit with the applied science perspective concerns individualization of treatment. The therapist must continually tailor therapeutic interventions to the life situation of the patient. This ongoing improvisational tinkering process is evident in the example of the pediatrics therapists given earlier. From a phenomenological or meaning-centered perspective, disabilities are always unique because they injure and shape each person's life in unique ways. Furthermore, an understanding of the uniqueness of the person's response to disability is integral to effective therapy.

If the patient is to do for himself or herself as part of treatment success, then learning to read the context becomes a key clinical reasoning task for the therapist. The example of the pediatrics therapist in this paper illustrates perfectly the ongoing interpretive efforts that characterize competent clinical reasoning in occupational therapy.

Often, the need to understand the context becomes most evident during the treatment process. Whereas prior studies of clinical reasoning in occupational therapy have focused on assessment, and much of the concern to improve practice or incorporate theory into practice has evidenced itself in the development of assessment tools, a study of actual practice reveals that it is often during the process of treatment rather than initial assessment that the thorniest clinical problems present themselves. Because therapists need patients who are committed to the treatment process, if their pictures of what clients need are greatly mismatched with the patient's perceptions of his or her needs, trouble arises. This mismatch is less likely to show itself during assessment than during treatment, when therapists are actively asking patients to do for themselves any number of tasks that the patients may find emotionally threatening and embarrassing or physically painful and difficult. If the patient does not see the same need to undergo a treatment program that the therapist does, therapy becomes stalled. Therapists get stuck and must begin to decide how to shift tactics or find out more about their patients in order to involve them in therapy.

One important implication of the fact that clinical reasoning in occupational therapy is so dependent on the reading of particular contexts is that it is more difficult to standardize practice in the form of uniform techniques and rules. The expert therapist continually modifies goals and procedures to meet the individual needs of the particular patient. From an interpretive perspective, the relation between an initial clinical condition and a final clinical outcome tends to lose any quality of a simple, rational, and straightforward application of a scientifically informed treatment plan; instead, it emerges as a complicated and infinitely more quirky interactive process among any number of critical actors (e.g., patients, families, other staff) as they come to know each other, try to establish trust, and manipulate each other for their own ends.

Conclusion

In this paper, I have argued for an alternative to the medical model of clinical reasoning. This alternative is an interpretive, or meaning-centered, model that focuses on how patients make sense of their disability and its meaning for their individual lives. I have claimed that such a model of clinical reasoning is more appropriate than the traditional medical model, which is built on the biological sciences and focuses on the physical impairments associated with disability. And yet it is clear from the Clinical Reasoning Study that many aspects of what therapists do fall well within the biological science framework. Therapists look at range of motion. They ask clients to stack cones, lift weights, balance their trunks, and put pegs in a pegboard. Even more complex, or life-related, treatment activities are often carried out by therapists in a physically focused way. For example, many of the self-care activities that therapists ask patients to do may concentrate more on the physical aspects of developing skills than on any deeper meaning that patients may attach to learning how to dress or feed themselves. The medical model, with its focus on the physical body, does not shed much light on clinical reasoning in occupational therapy. But it also presents problems in describing the thinking of therapists because it leaves so much out, and what it leaves out is fundamental to good practice. The clinical problems that are systematically most difficult for therapists are those that fall within the phenomenological domain, yet these have been given the least amount of attention in the education of therapists.

Attention to the meaning-centered nature of much clinical reasoning in occupational therapy reveals the depth of the clinical problems therapists face on a daily basis. What may look trivial from a purely physical point of view (e.g., backgammon boards, bright plastic balls, oddly shaped forks and spoons) and assume that occupational therapy is a trivial practice. Therapists complain of being called "play ladies," of being seen as versions of physical thera-
pists somehow assigned to the upper extremities or of being expected to keep patients occupied when they become too bored in institutional worlds. The danger of such characterizations is not merely the politics with other professional colleagues. It is also the insidious way in which such identifications can be internalized, and therapists can begin to see themselves in a reductionistic way. Therapists can come to reduce their practice to a manipulation of the physical body, forgetting how much their interventions are directed to a person's life.

Perhaps occupational therapy as a profession needs to take its phenomenological tasks more seriously. Although concern with a patient's experience of disability derives in part from deep beliefs that belong to occupational therapy's professional culture, the phenomenological perspective, from which illness and disability are treated as meaningful experiences, is quite neglected as an articulating and legitimizing framework for practice. Occupational therapists are trained much more systematically in the biomedically related sciences that provide them with a way of seeing the biomechanical body. They are required to take courses in anatomy and physiology, biomechanics and neurology. Such courses form the core of their education. There is no such core of courses to equip occupational therapists to treat the phenomenological body. Students learn little or no philosophy, sociology, anthropology, or psychology of disability as an illness experience, except incidentally in less pedagogically emphasized, clinically oriented courses designed to teach skills in group leadership and in the therapeutic use of self. If therapists continually reason about the meaning of a disability for a patient's life, their professional understanding of themselves should reflect this aspect of practice. Perhaps occupational therapy needs to expand and rework its professional language, introducing constructs from the interpretive social sciences, to better encompass the work therapists actually do in the course of treating patients. ▲

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