The image contains a document page from the Wayne State University School of Social Work, titled "Transitioning between Two Cultures." The page includes the institution's logo, the title, and some text that is not clearly visible due to the image quality. However, it appears to be part of a scholarly work or presentation, possibly related to the Elizabeth N. Brehler Scholars Program, given the context and formatting. The page number is 1, indicating it is the first page of the document.
Two Cultures

In the 1950s, British author and lecturer C. P. Snow wrote about what he referred to as “The Two Cultures.” He was commenting on his observed breakdown of the communication between the sciences and the humanities which, in his eyes, represented a major hindrance to solving the world's problems. He saw the situation partly as an educational failure, noting that many scientists failed to read classical literature and, similarly, artistic intellectuals were unfamiliar with the laws of science. Knowing little, if anything, about each other’s fields made communication difficult, if not impossible. While Snow was concerned primarily with the divide between science and the humanities, he acknowledged the emergence of a third “culture,” that of the social sciences which were concerned with “how human beings are living or have lived” (Snow, 2007). If he were alive today, he might well be writing about the divide between the physical sciences and the social sciences.

As a young man faced with a choice between the two cultures, I chose, with little hesitation, the path that led to the physical sciences. Then in retirement, some 40 years later, I returned for a second encounter with the fork in the road. This time I chose the path leading to the social sciences. The road to becoming a social worker has been fascinating, at times even exciting, but it has also been full of adjustments and unanticipated challenges. This essay describes my transition from the culture of chemical research to the culture of social work education and practice. What follows is a reflection on the conflicts encountered and adjustments required for this transition.

The Path to Physical Sciences

My journey into the hard sciences seemed to follow a predictable path. As an adolescent I lacked confidence in my social skills and social acumen. I felt insecure and
uncomfortable around unfamiliar people. Both of my parents had emigrated from Germany and neither parent had embraced American culture. They retained their European values and traditions and socialized almost entirely with other German immigrants. In my youth, even the Sunday morning service at the Lutheran church was conducted in German. I grew up a first-generation American in a neighborhood of second- and third-generation Americans. For me, the process of first entering school was equivalent to entering a new culture; I learned what it felt like to be part of an out-group.

I was fortunate in having a warm and stable home life. My parents modeled a strong sense of personal responsibility, a strong work ethic, and a sense that one should learn to do something practical. When I went off to college and considered possible courses of study, I chose chemistry. I was attracted to its practical side as well as its idealistic side – the prominent role it had played in the discovery of new medicines and new materials (plastics), and the potential it held for solving important environmental problems. Chemical research required knowledge, creativity, and the craftsmanship of an artisan; this was a challenge that I looked forward to. Also, I think that it was my perception that working in a laboratory offered a way to work at something challenging while avoiding the area that I felt least confident in - interacting with people. The laboratory appeared to offer a safe haven.

**The Appeal of Science**

A career in science held appeal for other reasons as well. Chemistry was not ambiguous. Results were usually clear-cut. If an experiment provided an ambiguous result, the experiment could always be repeated; environmental conditions could be controlled. Synthetic organic chemistry, my first field of endeavor, required an almost-artistic skill in addition to knowledge. I enjoyed developing my laboratory skills.
Chemistry also had permanence to it. Once you discovered how to make a molecule of a particular chemical structure, you could use the same procedure to make the same chemical again and again whenever and wherever you wanted. My dissertation (Siegl, 1969) included a description of how to synthesize cis- and trans-3-(p-chlorophenyl)thietane-1-oxide. That procedure could be used to make those same chemicals today, or 200 years from now. Such is the permanence of science. I felt comfortable and secure in the certainty and permanence of the physical sciences and I learned to thrive in them.

For nearly 40 years I worked as a research chemist. I became good at it. I helped solved some significant problems; I authored and co-authored several patents and a lot of scientific publications. I made presentations at national meetings and was invited to give talks. I felt knowledgeable and competent in my work. In the early part of my career, I worked on the discovery of new materials and contributed to the knowledge base of chemistry. In the latter part of my career I worked in collaboration with others on important environmental problems. We determined how various gasoline components contributed to automotive emissions, and later, we characterized the emissions that are released from cars when they sit in the sun. The results we published advanced the understanding of how motor vehicle emissions impact air quality and ultimately contributed to a cleaner environment for all. It felt good to make these contributions.

After 30 years of working at the same company, I decided it was time to retire. It was not an easy decision. While there was a part of me that wanted to continue doing the things that were familiar and that I was good at, there was also another part of me that wanted to explore the unfamiliar and to do what I was not yet good at doing.
I also felt gratitude for the opportunities I had been given and had a desire to give back and help those who were less fortunate. I knew that there were parts of my self that were yet undeveloped, and it was time to engage them. Freedom to choose brings with it the responsibility of choosing wisely. Age brings with it an appreciation for the value of time. So it came to be that I let go of the comfortable, followed the feeling, and found myself in the School of Social Work.

Culture Shock

I knew there would be a lot to learn but was not prepared for the feeling that I encountered of being overwhelmed with how much I did not know. The material I read was fascinating to me but I could never seem to learn enough, fast enough, to be of help to my clients. I had thought that my years of doing research in chemistry might be of significant advantage. After all, I had developed skills of observation, analysis and documentation which had served me well in the chemistry profession. But social work practice was so different for me. I had been used to feeling competent and now I felt incompetent.

The greatest challenges for me occurred in my social work practice, in my internships. My first year internship was at a residential treatment center for those experiencing alcohol and drug dependency. Our clients were low-income adults; about 25% also had a mental health diagnosis. Many had been homeless; a number had recently been released from prison; some had worked the streets. I learned an enormous amount about these people and about the variety of life styles that were going on outside my sheltered community. I learned how people became homeless and how difficult it was for anyone to reenter the system, once they had dropped out. But I would often feel
overwhelmed when working with clients whose experiences were so vastly different from my own.

My second-year MSW internship is at the Veteran’s Administration (VA) medical center in Detroit, working with survivors of sexual abuse. My clients are male; most of them are nearly sixty years of age or older. It has taken them this long to seek help for the sexual trauma that they experienced perhaps forty years ago. The sexual assaults occurred, not while they were young boys but, while they were young men serving their country in the military. Sometimes the assault involved seduction; sometimes it involved violence. The term “gang rape” has taken on a new meaning for me. There was no safe place for these victims to report their story back then; it is probably no different today. Some of them feared for their lives. All of them felt sick, ashamed, and confused. They feared that anyone or everyone would learn of their shame. Haunted by their trauma and not knowing where to find help, all of them have lived scarred lives. I understand their pain and feel the injustice, but I also feel inadequate to help.

While there are similarities between the cultures of the chemistry professional and the social work professional, it is the differences that cause the conflicts and the challenges that I experience. An example of how a difference creates a challenge might be the role of ambiguity and uncertainty in each profession. While chemists work hard to remove ambiguity, tolerance for ambiguity is a positive trait for clinical social workers. As mentioned above, the permanence and certainty of chemistry were two of the characteristics which attracted me to the field.

To become an effective social worker, I have to learn to become comfortable with ambiguity and uncertainty. I entered a recent session with a well-prepared agenda only to find that my client had arrived with an issue (his homosexual encounter with the
transvestite to whom he was delivering a pizza) which was totally beyond the scope of any previous discussion, and beyond my life experience. He wanted me to help him answer questions about what had happened. As a chemist, I had learned to anticipate appropriate to my culture; unanticipated surprises did not push deeply emotional buttons. In the encounter described, I was totally unprepared for the feelings of confusion that were aroused. How do I help my client with his confusion when I am overwhelmed with my own feelings of confusion?

In a recent paper, Wittenberg and Norcross (2001) report finding a positive correlation between tolerance for ambiguity and work satisfaction among practicing psychotherapists. This relationship between tolerance for ambiguity and job satisfaction has become apparent in my transition to social work. I know that I have work to do.

**Contrasts & Challenges**

Perhaps a useful framework for reflecting on the differences between these two cultures and the impact they have on my transition can be found by using the six core values of social work as a template for comparison. Those core values, as articulated in the National Association of Social Workers (NASW) Code of Ethics, are: service, social justice, dignity and worth of the person, importance of human relationships, integrity, and competence (NASW, 1999).

While the American Chemical Society (ACS) has not adopted a code of ethics, most chemists subscribe to what are generally accepted societal and professional values (Hepworth, Rooney, & Larsen, 2002). Reflecting upon the NASW list of core values, I realize that most of them represent beliefs that I already held and have expressed in my behavior. However, others may involve a change in emphasis or even direction.
Service – For social workers, the guiding principle is that the “primary goal is to help people in need and to address social problems” (NASW, 1999). For clinical social workers in particular, my area of concentration, the goal is much more person-oriented than it is for most chemists. As a social work intern I have worked with underserved populations in a one-on-one setting, a practice I hope to continue as a graduate social worker.

Most chemists also see their role as one of providing services that contribute to the betterment of society, albeit in a less personal way. For example, much of my chemistry research contributed to an improved understanding of how automobile emissions impact air quality.

I was raised in a family that believed in public service. On an individual level I participated, as did many of my colleagues, in civic affairs. I served as a member of science-education advisory committees at both the state and local level. In 1998, I founded (and still co-chair) “Kids & Chemistry” a group that brings hands-on chemistry experiments to young kids in the Detroit area. Our mission is to teach children that science can be fun; we work with approximately 1,000 kids a year with a focus on reaching those in the inner city. While service has always been both a personal value to me, as a social worker it has become a value of even greater importance.

Social Justice – Social justice is a term that rarely appears in the same paragraph with the word chemistry. As social workers we focus much of our attention on helping persons who are members of groups that are vulnerable, who are victims of discrimination, and who are underserved. In the last year, I have experienced a tremendous increase in consciousness in this area. As a chemist I was largely insulated from exposure to the struggles of the underserved members of our society. My two
internships have been particularly instrumental in raising my awareness of the difficulties encountered by those who have been jobless and homeless.

**Dignity and Worth of the Person** – As social workers, we see inherent dignity and worth in each person that we encounter. We try to treat each person in a caring and respectful manner without judgment. In our approach to helping, we try to remain mindful of our clients' right to self-determination. This means that we take great care not to impose our own culture, solutions and values on our clients. This is one area in which I have had to make significant change.

As a research chemist I was a problem-solver. In general, a chemist’s success is measured by his or her ability to rapidly define a problem and find a solution. As a clinical social worker I have a different measure of success. The interests of my client come first. It is not about my finding a quick solution. It is about my client and me collaborating to find the solution. As a social worker, I want to respect my clients’ right to determine the method and the solution. Success is related to developing my clients’ capacity and skills for self-change; I am a helper. My duty is to guide my clients. Speed is usually not that important. I am still working on this adjustment.

**Importance of Human Relationships** – All professionals, including chemists, employ and engage in human relationships as part of their goal-attainment strategies. However, social workers perceive personal relationships to be at the center of their goal or change attainment strategies. They understand that relationships between and among people represent an important instrument in the process of creating both personal and community change. For example, in therapy, before the true helping relationship can begin, it is essential to establish rapport or a therapeutic relationship with the client.
Consideration of personal feelings does not play an important role in the business of science. For a scientist who was trained to think and then act, the transition to social work requires retraining. Patience must be cultivated, where previously expedience was emphasized. As a social worker, my client’s interest comes first; my client owns the problem, I must have patience while my client solves the problem.

**Integrity** – Both chemists and social workers believe in professional and personal integrity, that one should behave in a trustworthy manner. Chemists are aware that the value of their research is directly dependent upon their reputation for integrity and honesty. Science is built on a literature base, founded on the integrity of its authors. A dilemma for scientists is that chemistry is a competitive field. Acknowledgement for intellectual contributions is a major ethical issue. As an example, if you visit the Harvard University Faculty of Medicine web site for integrity in science, it is clear that issues of authorship and attribution of credit are of prominent concern (Martin, J. B., 2005).

It seems that social workers face a particular challenge in maintaining separation between their own need to feel job satisfaction and the need for the client to achieve change or success at their pace. When a survey of psychotherapists asked them to identify the thoughts that caused them the most distress, two of the top four were related to client success (Deutsch, 1984). Integrity for social workers involves placing the client’s interest first.

**Competence** – Competence is another value that is prized in both cultures. An effective chemist, like an effective social worker, understands that being competent requires personal investment in a continuous learning process. Members of both professions know that to be effective they must continually strive to enhance their professional expertise. Both place value on contributing, when possible, to the
knowledge base of the profession. As a chemist I was fortunate to be able to publish my research results regularly and to present them at meetings of professional societies. I don’t know what similar opportunities I may have as a social worker.

An area of divergence between the two fields may be the major requirement that social work places on self-knowledge. It is widely accepted that, for the helping process to occur in counseling, a good therapeutic relationship must be developed first. Without it, client change is unlikely to occur (Cormier & Nurius, 2006). Worker self-knowledge, understanding one’s values, biases, strengths and limitations, is an essential step toward becoming an effective therapist. In my limited experience, during two internships, I have encountered clients who triggered emotional responses and who pushed sensitive buttons. Self-knowledge represents one more challenge for me conquer.

During this reflection and the writing of this essay I received a valuable insight: some of the personal attributes that were beneficial for becoming a successful chemist are very different from those necessary for a successful clinical social worker. For me to become an effective social worker, I must undergo some considerable retraining. The good news is that these are learned behaviors, and, as such, they can be relearned. The changes I am demanding of myself are significant, but I believe with time I will get it right. For now it helps to have a better perspective on why I am struggling.

For Each Step that you take …

Interestingly, as I enter my final term of the two-year MSW program, I feel less secure and less certain of my abilities than I did at the start of the program. Perhaps it is an example of what Leonard & Murphy refer to when they write “In the East, it is said that any true practice puts us on a journey during which, for every mile we travel toward the destination, the destination is two miles further away” (Leonard & Murphy, 1995).
The point that the authors attempt to make is that, when you enter into a new field, you realize that the more you begin to know about it, the more there is to know.
References


