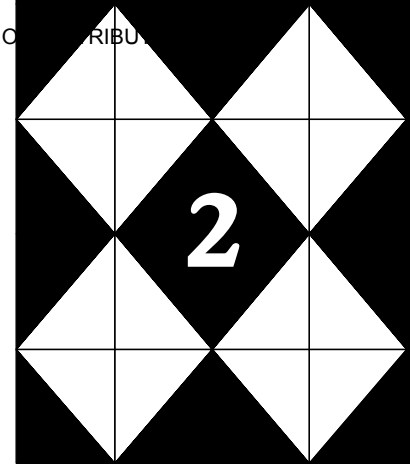

Why Think Theoretically About Health Promotion?

Learning Objectives

When you finish reading this chapter, you will be able to:

1. Offer a coherent rationale for why we should think theoretically about health promotion.
2. Explain why thinking theoretically about health promotion forms the basis for social justice and ethical practice.
3. Identify professional responsibilities of public health workers, related to theoretical thinking.
4. Recognize the theoretical thinking efforts currently underway in public health.
5. Recall how theoretical thinking guides research efforts in public health.

RATIONALE FOR THINKING THEORETICALLY ABOUT HEALTH PROMOTION

Hoping I was able to clarify the concept of theoretical thinking in the previous chapter, I now would like to answer a couple of questions you may have asked all along:

> Why should we think theoretically about health promotion?
> Isn't observing and collecting data related to public health issues and practice, enough?

The simple and immediate answer to the latter question is "no, not enough." The not-so-simple and more elaborate answers to the former questions are discussed later. As you read, please keep in mind a couple of points: first, the reasons for thinking theoretically I discuss in this chapter are presented individually, in a quasi-disconnected fashion. In practice, however, all of these reasons correlate and interact synergistically. I present them individually, for didactic purposes only. Second, there are other reasons for thinking theoretically besides the ones I propose here. The seven reasons described in this chapter represent, therefore, my own personal bias and worldview, shaped by the thinking of many scholars in public health and other disciplines. I challenge you to think of other (your own) reasons for thinking theoretically about health promotion and to consistently engage in this type of thinking throughout your professional career.

Reason 1: Because Theoretical Thinking Infuses Ethics and Social Justice into Public Health Practice[1]

It lasted 40 years: from 1932 to 1972. It was characterized as one of the most infamous man-made tragedies in the history of American science. Its legacy tainted

[1] I define practice, here, as more than planning, implementation, and evaluation of health promoting interventions. For the purposes of this chapter, practice is defined as Fee and Brown (2000) characterized it:

> First, "practice" as "praxis" means the total framework of one's professional life, including the ideology or worldview that guides one's actions, the framework of values used to set priorities, the commitment to translate these values and ideas into daily activities, and the expectation that by doing so consistently, one can transform the world in which one lives. Second, "practice," in the sense of "vocation," means acting according to a sense of calling or mission" (p. 690).

medical- and community-based research efforts long into the 21st century (Freimuth et al., 2001). It became known as The Tuskegee Study. Its purpose was

> . . . to determine the long-term course of [syphilis] in the absence of treatment and to note the peculiarities of the disease in black men. (There was widespread, mistaken belief among physicians that blacks responded differently to the disease than did whites). (Garrett, 2000, p. 321)

The study was conducted among a group of 600 black men (399 cases and 201 controls) in Macon County, Alabama. In 1932, Macon County exhibited one of the highest syphilis rates in the world (Garrett, 2000; Jones, 1993). Medical and public health researchers saw Macon County as a natural laboratory at their disposal. The Tuskegee Institute (since 1985, Tuskegee University), "founded by Booker T. Washington to educate freed slaves and their descendents," was housed in that county. Because the Tuskegee Institute relied heavily on federal funding, participation in the syphilis study became an opportunity for the institute to partner with the government and obtain much-needed revenue. The institute volunteered to contribute to the study by donating office space, hospital facilities, and laboratory resources (Hunter-Gault, 1997; Tuskegee University, 2008).

If the racist assumptions underlying its purpose weren't reason enough, the study became a hallmark of unethical medical research because it relied, intentionally, on deceiving participants and later, when treatment for syphilis became available, on withholding the treatment from those who were already ill:

> In order to lure men into the study, none of the patients was told he had syphilis—rather, they learned from the Tuskegee staff that they suffered from "bad blood. . . ." Initially imagined as a six-month study, the Tuskegee experiment would last until 1972. In all that time, the Macon County men and their families would never be told that they had syphilis. Nor were they provided with penicillin in 1943 when USPHS [United States Public Health Service] researchers discovered that it could cure syphilis. (Garrett, 2000, pp. 321–322)

Sixty-five years after the study began—on May 16, 1997—President Bill Clinton apologized, in the name of the United States Government, to the handful of survivors and their families gathered at the White House for the historical event. Addressing the survivors, the President stated: "The people who ran the study at Tuskegee diminished the stature of man [sic] by abandoning the most basic ethical precepts. They forgot their pledge to heal and repair." (Hunter-Gault, 1997)

To this day, the after-shocks of the study reverberate in the scientific and medical communities. Survey findings suggest that knowledge of (or, more precisely, misconceptions about) the study may negatively impact people's willingness to participate in medical research (Freimuth et al., 2001; Garrett, 2000; Katz,

Kegeles, & Kressin 2006; McCallum, Arekere, Green, Katz, & Rivers, 2006). Conversely, modern-day efforts to protect human subjects who take part in research—through institutional review boards' approval of study protocols—have become tangible corrective measures resulting from the Tuskegee debacle (Flicker, Travers, Guta, McDonald, & Meagher, 2007; Oakes, 2002).

Especially because we now live in an era that strongly emphasizes protection for people and animals taking part in research studies, we can't help but ask, "How could something like the Tuskegee Study ever happen?" In a competent attempt to explain how, in the book *Bad Blood*, James Jones weaves countless pieces of information, connects a myriad of characters entering and exiting the Tuskegee scene over the years, and describes in lengthy details the study's background (historical, social, economic, and scientific). Moreover, he carefully builds the plot that culminates with the unveiling, to the general public, of the study's continued existence: On July 25, 1972, a story authored by journalist Jean Heller appears in the *Washington Star*. Only then, does the U.S. society learn of the ordeal of the study's participants (Jones, 1993).

While reading Jones' book, I probably reacted as the typical reader who couldn't stop asking—despite the carefully woven narrative—"how on earth?" Because the history of the study is extremely complex and drawn out, I had a hard time connecting the many dots that Jones offered and failed to construct a simplified picture of the underlying motives. A single section in the book, however, brought home to me the basic, fundamental reason for Tuskegee having happened and having prevailed for so long. In that section, Jones critically discusses the system of peer review in the field of medicine in place in the 1930s. Those were times when codes of ethics outlining the protection of human subjects in research were nonexistent. The atrocities of Nazi experiments with humans had yet to occur, and physicians were gravely concerned with "preserving professional autonomy," not with defining "good practice" (Jones, 1993, p. 96). For me, the "aha!" moment came packaged in a single phrase in that section:

> Perhaps, too, the problem of defining with any degree of exactitude what constituted "sound medical practice" [during the 1930s] simply staggered a profession [medicine] largely composed of technicians and almost wholly composed of *people uninterested in theorizing*. (Jones, 1993, p. 96, emphasis mine)

With this sentence, I was able to finally put my finger on the root of the problem: Tuskegee didn't happen because scientists conducting the study *abandoned* basic ethical precepts, as former President Clinton stated in his apology speech (and I do hate to disagree with a former president). It happened because medical

doctors, during that historical moment, were trained to become healing technicians, versed on methods, strategies, and procedures for treatment and cure. They were not being trained to inquire, to question the status quo (why are we doing this?), to reflect on their practice. Their training had failed to foster the habit of theoretical thinking, of theorizing. The same argument applies to the public health workforce at the time. In the spirit of a good Nike advertisement to be developed nearly a half a century later, they just "did it."

From my perspective, there has never been an account as powerful as this one, to drive home the point that without the work of theory, professional ethics might as well be thrown out the window. No theory, no ethics. No theorizing, no reflection upon practice. No dialogue between theory and practice, no learning, no respect, no justice. It's that simple.

Theorizing—because it questions the status quo, and promotes reflection about practice and research—facilitates the groundwork for ethics and promotion of social justice within any profession, but especially within public health (Marmede, Schmidt, & Rikers, 2007). According to Fee and Brown (2000), "If the ideal of justice is abandoned by public health insiders, we have lost the very purpose of our mission" (p. 690).

Whenever someone asks you about the importance of theoretical thinking in health promotion, tell your listener the Tuskegee Study story and emphasize this point: The medical establishment's complete disinterest in theorizing, in questioning the status quo, in reflecting about its practice created a technique-oriented monster of a profession, concerned exclusively with itself. This is clearly a case where ignoring the practice of theory, far from being harmless, had horrendous consequences.

Reason 2: Because Theoretical Thinking Represents a Moral Duty and a Professional Responsibility

Another reason for thinking theoretically, also in the realm of ethics, is this: it's a duty, a professional responsibility. But what does professional responsibility mean?

Professionals of all types have certain tasks they must carry out in their daily practice, as well as values they must continually uphold; together, tasks and values constitute professional responsibilities. These professionals are held accountable for these responsibilities by their colleagues and their clients (and by society, as a whole). In other words, if a professional does not abide by commonly shared codes of conduct and professional standards, he/she is subject to sanctions, reprimands, or punishment; if, in contrast, that professional follows all guidelines and rules of conduct, he/she is worthy of praise and merit.

This notion of professional responsibility, as a set of tasks, procedures, or moral principles that should be followed, is not difficult to grasp; after all, most professions have certain codes of conduct or ethics and guidelines for their professional practice. It might be, however, a bit more difficult to "see" theoretical thinking as one of these professional responsibilities. Why would theorizing be a duty, a responsibility?

In the book *The Wounded Storyteller,* the author argues that ill people have a responsibility to tell their stories, to theorize about their experience. For him,

> Ill people's storytelling is informed by a sense of *responsibility to the commonsense world* [emphasis mine] and represents one way of living *for* the other. People tell stories not just to work out their own changing identities [when struck with illness], but also to guide others who will follow them. They seek not to provide a map that can guide others—each must create his own—but rather to witness the experience of reconstructing one's own map. Witnessing is one duty to the commonsensical and to others." (Frank, 1995, p. 17)

If we agree with Frank that there is a sense of duty in telling our stories about health and illness and if we believe theorizing is a process of making sense of health and illness through storytelling, then, by extension, theorizing is a duty. Theorizing or attributing meaning to our professional reality becomes a responsibility to both the commonsense world and our professional world.

To me, this is a very compelling reason for investing in theoretical thinking in health promotion: We owe it to the public, to our clients. We owe them not merely the development of efficient and effective tools and strategies to promote health. We owe them the responsibility to reflect on our practice continually, question our methods, reform our views, and construct the narratives that give them meaning. At the same time, we have the responsibility of witnessing our clients' own narratives, their attempts of making meaning of their lives, and their contributions to our own understanding of health and illness (Alderson, 1998; Biswas et al., 2007; Hinyard & Kreuter, 2007).

Please don't think I'm romanticizing about some pie-in-the-sky, idealized way of practicing health promotion when I bring up this "duty" argument. I haven't made this up. Theorizing is, indeed, a behavior embedded in six of the seven areas of professional responsibility for health educators, defined by the National Commission for Health Education Credentialing (the organization responsible for certifying professional health educators, nationwide; see www.nchec.org) (Gilmore, Olsen, Taub, & Connell, 2005). For instance, as part of Area I—Assess Individual and Community Needs for Health Education—subcompetency C refers to identifying "diverse factors that influence health behaviors" (i.e., theorizing about cause-and-effect relationships), and subcompetency E consists of identifying "factors that foster or hinder the

process of health education" (i.e., theorizing about sociopolitical contexts) (National Commission for Health Education Credentialing). As another example, embedded in Area VII—Communicate and Advocate for Health and Health Education—we find further references to the professional duty of theorizing and attributing meaning to health promotion practice, even though the terms "theoretical thinking" or "theory" do not appear in the wording: "Competency A—*Analyze and respond to current and future needs in health education.* Sub-Competency: Analyze factors (e.g., social, cultural, demographic, political) that influence decision makers (National Commission for Health Education Credentialing)."

Analyzing health education needs and factors that influence decision makers are all theoretical tasks. They require understanding of multiple levels of cause-and-effect relationships, knowledge of current social science and political science theories, as well as the development of a narrative/logical structure through which they can be communicated.

One example of this type of theoretical thinking is an article I co-authored with one of my now-former doctoral students, Lei-Shih Chen. In this article, titled "Entering the Public Health Genomics Era: Why Must Health Educators Develop Genomic Competencies?" we propose and develop five arguments supporting the notion that health educators must begin to think about developing their genomic competencies. We begin by defining genetics, genomics, public health genetics, public health genomics, and genomic competencies. We then provide the five arguments and carefully develop each one, based on information available to public health professionals at the time of the writing. The five arguments are as follows (Chen & Goodson, 2007):

> Argument 1—Because leading professional organizations have advocated the incorporation of genomics into health promotion practice.
> Argument 2—Because health educators' professional competencies and responsibilities encourage and corroborate the incorporation of genomics into health promotion practice.
> Argument 3—Because health educators' genomic competencies can significantly impact the lay public's utilization of and satisfaction with public health genetics/genomic services.
> Argument 4—Because by developing their genomic competencies, health educators are better able to meet emerging health needs.
> Argument 5—Because genomics and public health are generating unique opportunities for interdisciplinary collaboration, research funding, and employment.

If you read through the article, you will find that Chen's and my task, as authors, was not to report on research findings or document an experiment of any kind. The work we did was purely theoretical: It involved identifying factors and existing elements that could be connected through logic and presented to readers in a persuasive fashion. Given the historical moment health promotion finds itself embedded in, Chen and I felt we had a professional obligation to alert the field to the current and future need for health education to begin incorporating genomic competencies, to help the workforce think through these needs, and to devise mechanisms to address them.

So…not only do we have a duty to tell stories that make sense of realities in the commonsense world, we also have a responsibility to our professional world of seeking out meaning, reflecting about practice, and making sense of health promotion, health threats, and illnesses. Theoretical thinking, as we have seen, is the essential tool for meeting such responsibilities and, as professionals, we are accountable for employing that tool.

Reason 3: Because Theoretical Thinking Guides the Profession

As you have just read, among health educators' professional areas of responsibility listed by NCHEC, we find this: advocating for, and promoting, health education as a profession (Area VII). Whether we choose to consider health education, in particular, or any other dimension of public health, more broadly, makes little difference. Within all of public health's dimensions, thinking theoretically about the field, its direction, goals, and values is an essential task for grounding and steadying the profession within the parameters of ethics, social justice, and effectiveness.

Not many scholars in public health and health education have dedicated their scholarship to thinking theoretically about the professional dimensions of health promotion. Those committed to the task have, no doubt, shaped and directed the field, leading all of us to more effective and ethical practice. (For a brief historical review of important theoretical contributions to public health practice, see Green, 2006.)

When thinking about those who have, indeed, shaped the field from a theoretical perspective, I'm reminded particularly of Lawrence W. Green and Marshall W. Kreuter's work, developing and refining the PRECEDE–PROCEED model. Even though not a scientific theory, per se, the model resulted from careful theoretical thinking and attempts to make intervention planning logical, theory-based, and user-friendly (Green & Kreuter, 2005). Along the same lines of contributing toward planning and practice through the development of in-depth planning models,

I think of the work of L. Kay Bartholomew, Guy Parcel, Gerjo Kok, and Nell H. Gottlieb (my mentor during doctoral studies' days) in developing Intervention Mapping. Intervention Mapping is a strategy that facilitates effective decision making, at each and every step in the planning, implementation and evaluation of a health promotion intervention. The strategy makes it easier for practitioners to identify "a set of well-defined antecedents or determinants of behavior and environmental conditions" to target in their interventions, thus ensuring that their efforts are more likely to be effective (Bartholomew, Parcel, Kok, & Gottlieb, 2006, p. 4).

Among the handful of theoretical thinkers in our field, I'm also reminded of the work carried out by Meredith Minkler questioning the status of health promotion and the paths chosen by the profession (Minkler, 1999; Robertson & Minkler, 1994). For instance, in an article titled, "Health Education, Health Promotion and the Open Society: An Historical Perspective" (published in 1989, this article has now become a "classic" in the field), Minkler examines the historical development of two alternative directions health promotion began to face in the 1980s: "the first focusing primarily on personal behavior change and the [second] on a broad empowerment/environmental model of health promotion" (Minkler, 1989, p. 17). In that article, Minkler provides an outstanding example of theoretical thinking: She revisits some of the questioning that had taken place in the late 60s regarding the direction health promotion might be taking, warns the field of potential inherent dangers, and poses historical arguments to make her point clear. Here are the first few paragraphs of that article. As you may notice, it's difficult to believe she wrote this 20 years ago and not yesterday.

> Twenty years ago, health education leader Dorothy Nyswander[2] reflected back upon her career, measuring her work and the work of her profession, against the criteria of an open society. She defined the latter as a society that concerns itself

[2] Dorothy Bird Nyswander was considered the "mother of health education." One of the founders of the School of Public Health at the University of California at Berkeley, she was actively engaged in public health work for more than 60 years. Nyswander (1967) believed and promoted the concept of an "Open Society," one where

> justice is the same for every man; where dissent is taken seriously as an index of something wrong or something needed; where diversity is respected; where pressure groups cannot stifle and control the will of the majority or castigate the individual; where education brings upward mobility to all; where the best of health care is available to all; where poverty is a community disgrace not an individual's weakness; where greed for possessions and success is replaced by inner fire for excellence and honor; where desires for power *over* men become satisfactions with the use of power *for* men. (p. 11)

> with the rights and dignity of the individual, respect for diversity and dissent and with increasing social justice and individual sense of control and self-determination.
>
> While making clear her pride in health education's accomplishments, Dr. Nyswander also expressed concern over its limitations. She went on to admonish health educators to *redefine and significantly broaden their professional goals*, bringing them into closer alignment with the goals of an open society [emphasis mine].
>
> Two decades later [1980s], health educators are again being asked—by sources ranging from private hospitals to the World Health Organization—*to reexamine their professional roles and to make some dramatic shifts* [emphasis mine]. This time around, however, we face two quite contradictory proscriptions for change. And to make matters even more confusing, both are being put forward under the rubric of health promotion. Which direction we choose will have tremendous implications for the future of the field—and more important, for the contributions that health educators may make toward improving the public's health. (Minkler, 1989, pp. 17–18)

In recent years, Minkler's writing has focused on developing logical arguments buttressing the importance, methods, and implications of community-based participatory research (CBPR) in public health (Minkler, 2000; Minkler & Wallerstein, 2003; Minkler, Blackwell, Thompson, & Tamir, 2003). Defined as "a collaborative process that equitably involves all partners in the research process and recognizes the unique strengths that each brings" (Minkler et al., 2003, p. 1211), CBPR has been touted by health scholars, governments, private and philanthropic organizations, as a more desirable form of research and problem-solving action strategy within communities (Minkler, 2004). Nevertheless, CBPR presents its share of challenges and difficulties, and Minkler exercises her responsibility to her profession, pointing out the challenges and offering compelling recommendations (Minkler, 2004).

Among the theoretical thinkers who have helped to shape health promotion, I also think of those who have contributed to developing and applying health behavior theories, such as the editors and the authors of the textbooks *Health Behavior and Health Education: Theory, Research, and Practice* and *Emerging Theories in Health Promotion Practice and Research* (Glanz, Rimer, & Viswanath, 2008; DiClemente, Crosby, & Kegler, 2002). Among the scholars dedicating their careers to developing and testing health behavior theories, I especially recall those who first promoted a systems-thinking approach to health promotion, through the use of an ecological framework (McLeroy, Bibeau, Steckler, & Glanz, 1988; Simons-Morton, Simons-Morton, Parcel, & Bunker, 1988). The ecological

framework highlighted the need to go beyond individual-level factors to explain health behavior and include interpersonal, community, and policy elements as well. Introducing the notion of multilevel influences on individuals' health behavior represented a paradigm shift, or one of those "tipping point" moments, when an entire field sees itself confronted with new information, new ways of thinking (Gladwell, 2000; Rogers, 1962).

More recently, I also think of the scholars who have advanced the application of systems theory[3] to understanding human health (Green, 2006; Homer & Hirsch, 2006; Leischow & Milstein, 2006; Resnicow & Page, 2008; Trochim, Cabrera, Milstein, Gallagher, & Leischow, 2006). Systems science, while including ecological perspectives, goes beyond these models to include advances "in fields such as system dynamics and complexity theory" (Trochim et al., 2006, p. 538). Such new ways of thinking often preclude looking back: After we understood the importance and the force of ecological influences, it was nearly impossible to continue to think about health behaviors as shaped merely by personal or individual-level factors. As we begin to approach public health as a complex adaptive system, it becomes increasingly difficult to focus exclusively on individual elements of this system (e.g., local health departments), in isolation from the entire network of public health services.

In recent years, I find David R. Buchanan's writings constitute an important theoretical reflection about our profession. At the time of this writing, Buchanan is a Full Professor of Community Health Education at the School of Public Health and Health Sciences at the University of Massachusetts. He has authored numerous journal articles, but I find his book *An Ethic for Health Promotion* one of the most important contributions of his career. His perspective has significantly impacted my thinking, as he pointedly raises the difficult questions about the direction health education, specifically, and public health in general, has taken (Buchanan, 1994, 1998, 2000, 2004, 2006b, 2008).

As Buchanan sees it, health promotion has abandoned its education and humanities roots in favor of privileging the ideology of the natural sciences. Motivated perhaps by the need to compete for federal funding, to demonstrate effectiveness (to show that health interventions "work"), and to garner admiration or prestige, the field has touted the use of scientific methods

[3] The term "Systems Theory" refers to "an approach or perspective in several disciplines that emphasizes studying the interrelations of the parts of a whole (the system) more than studying components in isolation from their position in an organization" (Vogt, 2005, p. 230).

(including scientific theories of health behavior) to control and manage people's risk or health-promoting behaviors. Yet, as he strategically points out, our record of success using such methods has not been impressive. Here's an example of how physicians view our "scientific" attempts (Chehab, Pfeffer, Vargas, Chen, & Irigoyen, 2007):

> The prevalence of American adolescent obesity tripled in the past 30 years; currently over 17% of adolescents are obese. Most childhood obesity interventions are rooted in theories of social learning and the health belief model, and focus on enhancing health education, physical education, and food within the school environment. In a review of recent programs, only [three] American interventions significantly impacted weight. . . . Given the limited success of most childhood obesity interventions, alternate approaches need to be explored. (p. 474)

Not a very flattering compliment to our efforts, I would say. Yet Buchanan has emphasized the need to consider criticism such as this seriously and to honestly re-examine the course health promotion has chosen. In a reply to an editorial in the journal *Health Education & Behavior*, Buchanan (2006a) stated,

> There are moments when I despair about the state of our profession. . . . We have made a colossal categorical mistake. We have foolishly and egregiously applied the standards of scientific success to what is intrinsically a moral and political enterprise: deliberating about how to live well. The value of health education lies in promoting ethical principles regarding human well-being and quality of life, social justice, human autonomy, and responsibility, not technologies of behavior control. (p. 308)

Why so few health promotion scholars engage in this type of theoretical thinking about the profession is understandable: to think this way is disquieting and disturbing (Willinsky, 1998, p. 245). It rattles the status quo cage and ruffles many feathers in the process (my apologies for the double metaphor!) As Willinsky (1998, p. 249) describes when addressing this type of theorizing in the field of education, "The encounter with theory leaves [us] aware of *theory's work of disrupting and unsettling, exposing and revealing* desires that may be, once known, dangerous in practice and not just in theory [emphasis mine]."

Yet, isn't this the work of theory after all? To disrupt, unsettle, expose, and reveal? Without such labor, the practice of health promotion is doomed to meaninglessness or, worse yet, to other fields imposing *their* meanings upon on our work. I make this latter point clearer in Reason # 4. Read on.

Reason 4: Because Theoretical Thinking Prevents Ideological Takeover, or Hegemony

You are probably familiar with the terms *ideology* and *hegemony.* A set of rather complex constructs, their definitions have been refined many times throughout the history of Western thought. For now, however, let's define ideology and hegemony in their simplest terms. Ideology represents the "integrated assertions, theories and aims that constitute a sociopolitical program" (Merriam-Webster). The phrase "sociopolitical program" here does not mean a degree in political science. It means the collection of plans societies have for governing themselves, for administering all that goes on in their midst. In turn, hegemony happens when one social group's ideology dominates another group and becomes the predominant influence over this group—in other words, an ideology takeover.

Now, here's my argument: if public health ideology—or the assertions, theories, and aims that define public health—is not being construed and shaped by the public health workforce itself, then another ideology—developed by professionals outside the field—will fill the void. Public health practice cannot exist without an ideology (or set of theories) to frame it, to give it meaning. But who articulates that meaning? Who builds the public health narratives that guide the field? The meanings and the ideology will be constructed—one way or another—because human beings have a need to attribute meaning to their actions. Who conceives this ideology becomes then an interesting and nontrivial matter to consider: If not we, public health professionals, then who? If we're not theorizing, either because we don't know how or don't want to bother, other professionals (psychologists, sociologists, anthropologists, ethicists, economists, historians, marketing specialists) will do it for us. If we don't theorize about our own practice, we're condemned to "be practiced" or to "be theorized." "Without theory," asserts Willinsky, "you risk being practiced by unstated theories" that underlie your day-to-day professional tasks. If it's not your theory, it's the theory someone else, or some other group, will impose on you. It's your choice. It's *our* choice, as professionals.

In an article published in the *American Journal of Public Health* in 2006, Lawrence Green briefly reviewed the history of public health and its sociology and psychology "turns." These turns represented moments in which psychologists and sociologists began showing an interest in public health, in addressing the "complexities of the newly emerging epidemics of chronic diseases" (Green, 2006, p. 406). Yet opening public health to the theoretical thinking of other fields came with important limitations, most of which could only be identified in hindsight.

Among such limitations, according to Green's analysis, we saw public health's willingness to ". . . draw on sociology for ways to measure socioeconomic status, for example, so that we could control for its confounding" (2006, p. 407). At the same time, we witnessed public health's reluctance to ". . . use [sociology's] socioeconomic variables to untangle the web of causation that such variables should have forced us to grapple with much sooner."

We borrowed some of the concepts and analytical tools from sociology, in other words, but didn't care to delve into the complex causal webs uncovered by these tools. Stated differently: we improved our measurement and analytical skills, but our theorizing didn't follow suit.

The mark psychology left on public health also came with a hefty price. According to Green (2006),

> For all the enrichment of critical scientific and theoretical thinking on behavioral issues in public health that psychologists brought, their domination of that thinking could be seen in retrospect as regression to the individualistic mean and to the reductionist methodologies of experimental psychology rather than the community and systems thinking [required by public health]. (p. 407)

Paraphrasing Green's statement, our rendezvous with psychology kept us confined to a worldview dominated by individual-level variables when we needed to be examining public health from the perspective of broader, multilevel influences.

Despite these not-so-perfect exchanges with other fields of knowledge, because public health is an applied field and it is the nature of applied fields to borrow theoretical frameworks from other disciplines, incorporating constructs from various social sciences into public health will remain a common practice. It becomes vital, therefore, for "public health professionals and researchers to *remain critically reflective* about the processes by which social science is translated into the public health mainstream" (Moore, Shiell, Hawe, & Haines, 2005, p. 1330).

As we begin, for instance, to seek help in understanding health and illness from different perspectives such as Social Capital theory, or systems theory/systems science, several theoretical thinkers are proactively asking important questions regarding the scope and quality of the contributions these approaches can provide. Green (2006), for one, asks of systems-type approaches, "Which concepts and methods will be most useful?" and "Who will support this new addition to public health?" (p. 408), whereas Moore et al. (2005) question: "Is social capital a more accurate predictor of variations in health outcomes than economic and income-related factors?" (p. 1331).

Uncritical adoption of constructs, methods, and propositions from other sciences—as exciting and as promising as these new perspectives might be for our own understanding of health—generates not only the potential for hegemony, but also the potential for a dangerous "misfit" between these constructs and the complexities of public health realities. Disenchanted by these potential pitfalls, many scholars are calling, in fact, for "theoretical innovation" in public health (Potvin, Gendron, Bilodeau, & Chabot, 2005, p. 591).

Whether we heed the call to develop theories unique to the public health field or continue to borrow theoretical frameworks, questions such as those being asked of systems sciences or social capital theory and reflections about which theoretical influences we might allow to permeate public health can only be addressed through careful and systematic theoretical thinking. Without it, we would be at the mercy of our own ignorance or resistance, at best, and subject to other fields' ideological whims, at worst.

Reason 5: Because Theoretical Thinking Guides and Perfects Practice

In the beginning of this chapter, I offered a definition of practice extending beyond the mere development, implementation, and evaluation of health promotion programs (see note 1). To understand the fifth reason for thinking theoretically, it will be easier, however, if we focus narrowly on the notion of practice as the *set of activities* we engage in to promote health and prevent illness. Within this narrower view, I challenge you to consider the possibility that theory doesn't merely inform our activities or makes practice a bit more efficient; indeed, "theory makes perfect," as educator John Willinsky proposes (1998, p. 245).

Reviews of the public health literature have consistently indicated that health promotion or prevention interventions are more effective in generating desired outcomes if they are based on or informed by theory (Elder, Ayala, & Harris, 1999; Hochbaum, Sorenson, & Lorig, 1992; Jackson, 1997; Whitehead & Russell, 2004). Some of the better or most user-friendly health behavior theories suggest which methods or strategies work best to influence specific health determinants; therefore, programs anchored in available scientific or educational theories do not have to reinvent the proverbial wheel and do not have to guess wildly about which objectives, means, and outcomes the program should devise. Here is how Rimer, Glanz, and Rasband (2001) put it:

> The development and use of an analytical framework, or logic framework, [for planning and implementing interventions] can be very helpful in clarifying and

> communicating which processes and outcomes are considered most important. A logic framework requires that we articulate the underlying theory of the intervention, presumed mediating and process factors, and ultimate outcomes. With a logic framework, the chain of evidence then becomes clear, and links that are already well established in the literature can be supported. (p. 242)

When health educators use a planning model, such as PRECEDE–PROCEED or Intervention Mapping, to design and strategize what their program or intervention will look like and how it will operate, this, in itself, is a form of theoretical thinking: As these health educators plan and map their practice, they are constructing a theory of action (Argyris, 1974), proposing a series of cause-and-effect logical associations: "If we teach cooking lessons to parents, they will learn how to prepare healthier, more nutritious meals for their children; their children will avoid eating junk food, thus preventing premature obesity."

Even when health promotion programs are not explicitly theory-based, that is, they don't invoke a health behavior theory (e.g., Social Cognitive Theory or social support theories) as their basis, they remain theory-based, implicitly. Every intervention operates on assumptions of what works and what doesn't, or which activities (or causes) will lead to specific outcomes (or effects). Every program, therefore, has an implicit theory of action (Patton, 1997).

If theories remain implicit, however, it becomes more difficult to perceive their benefits. Making theories of action explicit, therefore, may save practitioners precious time when deciding which activities they should implement, where to start developing their intervention, and how to make it more efficient. Established theories (because it's taken several years to test them) provide suggestions of methods and strategies that tend to work best for specific populations and in specific circumstances. Hochbaum et al. (1992) described this eloquently saying:

> [Theories] furnish us with valuable tools for solving a wide variety of problems in our work. In the context of our professional practice, our theories can be regarded as being essentially statements identifying factors that are likely to produce particular results under specified conditions. To put it in other words, good and proven theories, if well chosen and skillfully adapted, can help us predict what consequences various interventions are likely to have even in situations we have never before encountered. Certain social and behavioral science theories and theories from a number of other fields represent our best understanding of human health-relevant behavior and of other factors of concern to the profession. They can, therefore, be invaluable at times as guides for selecting or developing and applying the most promising strategies and methods in any given situation." (p. 296)

Public health practitioners are shortchanging themselves when they avoid using theory to help develop their programs: Most of the theories used in health

promotion have very specific suggestions for how to enhance clients' motivation, how to build people's confidence, and how to help them manage their fears and concerns. Here is an example: When discussing how people regulate their own behaviors, Bandura's presentation of the issue automatically suggests possible strategies for intervention. (In case you're not familiar with Albert Bandura, he is one of the main proponents of Social Cognitive Theory, responsible for giving us the concepts of self-efficacy and observational learning.) Here's what Bandura (1986) says when describing the theoretical aspects of self-regulation:

> People get themselves to do things they would otherwise put off or avoid altogether by making tangible incentives dependent upon performance attainments. By making free time, relaxing breaks, recreational activities, and other types of tangible self-reward contingent upon a certain amount of progress in an activity, they mobilize the effort necessary to get things done. (p. 351)

If a practitioner is thinking about setting up a health education intervention aimed at increasing sedentary people's daily levels of physical activity, by reading this portion of Bandura's work, this practitioner might be prompted to think about how to build self-rewards into his or her program. Perhaps the health educator could lead the program participants to choose self-rewards that they value and could teach them how to manage these tangible incentives to reinforce new physical activity behaviors. For example, one participant may choose to reward herself with a new pair of expensive walking shoes, if she logs in 30 minutes of walking every day for 25 days of a month.

Yet, if practitioners were to continue reading and searching for intervention strategies in Bandura's work, they would also learn that there are important nuances in helping people regulate their own behavior through the use of incentives. One such nuance regards whether individuals *can*, in fact, engage in that specific behavior (e.g., walk for 30 minutes a day for 6 days a week when previously they walked very little). If people are not confident or don't have a certain level of self-efficacy to perform the behavior, it doesn't matter that they have put in place pleasurable self-rewards; the behavior will not occur, and the reinforcement will not be applied. Through familiarizing him/herself with the theory as a whole, its multiple factors, and their relationships, the health educator can then make more appropriate decisions about which factors to target, how best to change these factors, and therefore develop a more effective program.

Having thus far defended the use of theories in health promotion practice, I find it necessary, nevertheless, to counterbalance this defense with the caveat mentioned by Hochbaum in his 1992 article *Theory in Health Education Practice*.

While theories are useful for suggesting interventions, strategies, and which variables to target in these interventions, affirms Hochbaum et al. (1992), theories do not tell practitioners what to do:

> That is why we use terms like, "suggested by such and such theory" or "theory-informed" rather than "theory-determined" or "theory-driven" when we speak of health education programs . . . our theories are merely instruments to help us find (not tell us) the most promising designs, strategies, methods, and techniques in the process of planning our programs, and powerful instruments they can be when selected and used properly. But even the best and most proven theories are no substitute for practitioners' training, experience, mastery of skills, knowledge, and inventiveness. Those possessing these qualities will find theories potentially powerful tools; those lacking these qualities will find them useless at best, misleading at worst. We cannot stress this too much because disillusionment with theories is very often due to expecting from them what they simply cannot deliver." (pp. 308–309)

I agree with Hochbaum's view. While theoretical thinking can perfect practice (and here Hochbaum and I mean practice in the sense of the activities we develop to promote health and prevent disease), it does not constitute a recipe book for practitioners. Nevertheless, practitioners gain much, and avoid substantial headaches, if they think theoretically about their professional tasks.

Reason 6: Because Theoretical Thinking Builds Scientific Knowledge

Theoretical thinking represents the ground in which the knowledge-base of health promotion is rooted, grows, and develops, much like a well-tended garden. Granted, public health promotion and particularly health education are applied fields: They focus on solving problems, facilitating healthy decision making, and providing practical solutions to everyday threats to our health (Rasberry & Goodson, 2006). Yet, public health's attempt to gain legitimacy among other disciplines and to align itself with a scientific, biomedical model (Buchanan, 2006b) has pushed the field in the direction of research—not merely evaluations of health promotion interventions but also basic research on the determinants or causes of health behavior.

If examined closely, however, much of the research carried out in public health is descriptive in nature: epidemiologic studies describing the distribution of diseases among certain population groups (Geanuracos et al., 2007; Lantz et al., 2006), evaluations of educational prevention programs or marketing campaigns

(Cameron et al., 2007; Neuhauser et al., 2007), and outcomes research (i.e., research based on observations and hypotheses not linked to a theoretical model, common in the medical field) (Busch & Custer, 2006; Reeve et al., 2007). Fewer studies focus on theoretical questions or reflect on public health history, its practices, and methods of delivery (Rogers, 2007). In summary, much of the research we consume and apply is "descriptive, rather than analytical, interpretive or critical" (Norgaard, Morgall, & Bissell, 2000, p. 77).

A profession's body of knowledge requires both types of research—descriptive and analytical/critical—no doubt. But development of a sound knowledge-base or the construction of meaning in a given discipline happens only within the realm of analytical, interpretive, or critical (in other words, theoretical) thinking.

I understood this distinction between description and analysis/interpretation better when, during my doctoral training, I read a short story written by Bernard K. Forscher (1963), published as a letter to the editor in the journal *Science*. Titled "*Chaos in the Brickyard*," I transcribe it here, in its entirety, so you can appreciate its uniqueness:

> Once upon a time, among the activities and occupations of man [*sic*] there was an activity called scientific research and the performers of this activity were called scientists. In reality, however, these men [sic] were builders who constructed edifices, called explanations or laws, by assembling bricks, called facts. When the bricks were sound and were assembled properly, the edifice was useful and durable and brought pleasure, and sometimes reward, to the builder. If the bricks were faulty or if they were assembled badly, the edifice would crumble, and this kind of disaster could be very dangerous to innocent users of the edifice as well as to the builder who sometimes was destroyed by the collapse. Because the quality of the bricks was so important to the success of the edifice, and because bricks were so scarce, in those days the builders made their own bricks. The making of bricks was a difficult and expensive undertaking and the wise builder avoided waste by making only bricks of the shape and size necessary for the enterprise at hand. The builder was guided in this manufacture by a blueprint, called a theory or hypothesis.
>
> It came to pass that builders realized that they were sorely hampered in their efforts by delays in obtaining bricks. Thus there arose a new skilled trade known as brickmaking, called junior scientist to give the artisan proper pride in his work. This new arrangement was very efficient and the construction of edifices proceeded with great vigor. Sometimes brickmakers became inspired and progressed to the status of builders. In spite of the separation of duties, bricks still were made with care and usually were produced only on order. Now and then an enterprising brickmaker was able to foresee a demand and would prepare a stock of bricks ahead of time, but, in general, brickmaking was done on a custom basis because it still was a difficult and expensive process.

> And then it came to pass that a misunderstanding spread among the brickmakers (there are some who say that this misunderstanding developed as a result of careless training of a new generation of brickmakers). The brickmakers became obsessed with the making of bricks. When reminded that the ultimate goal was edifices, not bricks, they replied that, if enough bricks were available, the builders would be able to select what was necessary and still continue to construct edifices. The flaws in this argument were not readily apparent and so, with the help of the citizens who were waiting to use the edifices yet to be built, amazing things happened. The expense of brickmaking became a minor factor because large sums of money were made available; the time and effort involved in brickmaking was reduced by ingenious automatic machinery; the ranks of the brickmakers were swelled by augmented training programs and intensive recruitment. It even was suggested that the production of a suitable number of bricks was equivalent to building an edifice and therefore should entitle the industrious brickmaker to assume the title of builder and, with the title, the authority.
>
> And so it happened that the land became flooded with bricks. It became necessary to organize more and more storage places, called journals, and more and more elaborate systems of bookkeeping to record the inventory. In all of this the brickmakers retained their pride and skill and the bricks were of the very best quality. But production was ahead of demand and bricks no longer were made to order. The size and shape was not dictated by changing trends in fashion. In order to compete successfully with other brickmakers, production emphasized those types of brick that were easy to make and only rarely did an adventuresome brickmaker attempt a difficult or unusual design. The influence of tradition in production methods and in types of product became a dominating factor.
>
> Unfortunately, the builders were almost destroyed. It became difficult to find the proper bricks for a task because one had to hunt among so many. It became difficult to find a suitable plot for construction of an edifice because the ground was covered with loose bricks. It became difficult to complete a useful edifice because, as soon as the foundations were discernible, they were buried under an avalanche of random bricks. And, saddest of all, sometimes no effort was made even to maintain the distinction between a pile of bricks and a true edifice.

Each bit of data we collect so efficiently in public health is a brick. We require theory to mortar the bricks and build a structure of some sort. In the absence of theoretical thinking, all we have left are scattered bricks, lying around in big, disorganized piles, building nothing. Theory is the only way to connect the bricks into meaningful (even beautiful) structures that help us make sense of our reality.

One example of how it takes theoretical thinking to build scientific structures from isolated bricks of data is the development of the field of psychoneuroimmunology. The term is a mouthful because it brings together elements from various disciplines: psychology/psychiatry, neurology/neuroscience, and immunology.

Known as PNI for short, it sprung into existence in the mid to late 1980s when scientists proposed a new way of thinking about human physiology. This new way of thinking did not separate the mind from the body and did not privilege the brain as the only official residence for emotions and consciousness (Pert, Ruff, Weber, & Herkenham, 1985).

The new paradigm began mortaring many loose bricks found lying around in various disciplines' brickyards for a long time. It began connecting disjointed facts, such as college students contracting the flu right before final exams week in almost epidemic numbers, healthy widows dying of "broken heart syndrome" soon after losing their spouses, type A personalities being more prone to heart attacks, and others. Only when a new way of thinking theoretically about human physiology came about were scientists able to articulate all this information and understand the logic behind each of these seemingly "bizarre" occurrences. Here is how one of the original proponents of PNI, Candace Pert—a scientist who discovered endorphin receptors and mapped the human endorphin system—describes the "building" of this new way of thinking;

> Even with the development of modern psychology and psychiatry, mind and emotions are still not studied as part of the physical body, but are kept apart from it in a world of their own. In keeping with this spirit, still deeply entrenched in our mainstream medical practices, the 'head' and the 'body' doctors rarely sit down at the same table. . . .
>
> But contrary to the reigning-paradigm belief, the body doesn't exist merely to carry the head around! The body isn't an appendage dangling from the almighty brain that rules over all systems. Instead, the brain itself is one of many nodal, or entry, points into a dynamic network of communication that unites all systems—nervous, endocrine, immune, respiratory, and more. This is called the psychosomatic network, and the linking elements to keep it all together are the informational substances—peptides, hormones, and neurotransmitters—known as the molecules of emotion.
>
> In 1985, Michael [R. Ruff] and I proposed the existence of a psychosomatic network that is mediated by the emotions, and we published our theory in *The Journal of Immunology*. It was that scientific paper—along with our earlier research on the connection of brain, endocrine and immune systems—that helped launch a new field known as psychoneuroimmunology (PNI). (Pert & Marriott, 2006, pp. 33, 35)

An entire interdisciplinary field was "built," thanks to the ability of scientists to think theoretically about what they saw in their laboratories in novel ways. Were it not for PNI, our understanding of the role that emotions play in promoting or damaging health would still be relegated to the realm of anecdotal

evidence, to the realm of the "interesting" or the "outlandish," and dismissed as having little or no value for prevention efforts (Pert et al., 1985). Thanks to this new building in the brickyard (new kid on the block?), health promotion has begun (albeit slowly) to incorporate emotions, moods, and mental states into prevention programming and research, quite effectively.

Just one example of the contributions PNI can make to public health, among many, is expressed in a 2003 editorial in the *American Journal of Public Health*, authored by David J. Malebranche. Discussing the next steps public health should take to address the HIV epidemic among black men in the United States, Malebranche (2003) proposes that looking into PNI for understanding the issues shaping this epidemic among black males, can be very useful:

> Psychoneuroimmunology—the study of interactions between psychological factors and immune system function—has already identified associations between mental states and disease progression. For example, for HIV-seropositive gay men, traumatic events, such as the death of a partner, or attributions of negative experiences to self can predict faster CD4 decline and progression of disease. Exploring the relationship between stress, mental health, and immune markers of susceptibility to HIV is a plausible approach to understanding the current disparity in HIV rates between BMSM [Black men who have sex with men] and other MSM [men who have sex with men]. (p. 864)

As with the development of PNI, other attempts to mortar loose bricks in the public health brickyard are currently underway, such as the application of social capital perspectives and systems science to the understanding of health determinants. Continued development of these perspectives will require theoretical thinking of the highest quality. The bottom-line, take-home message is this: For research to actually contribute to knowledge development in public health, theoretical thinking is imperative. Without it, we're left with piles of descriptive bits of data, mere bricks scattered in the brickyard, building nothing but clutter.

Reason 7: Because Theoretical Thinking Provides Roadmaps for Research

Scholars in applied disciplines have consistently asked for more theory-based research because theory-driven inquiry leads to analytical-type studies, capable of going beyond mere descriptions of the here and now, and capable of generalizing results. Norgaard et al. (2000), for instance, when advocating for more theory-based research in their field of pharmacy practice, conclude "we argue for theory-based PPR [pharmacy practice research] because we see a tendency in this field to focus

on descriptive studies that address the 'what' or 'how many' questions, but rarely answer the 'why' questions" (p. 77).

Similarly, a colleague of mine who serves as the editor of *Rehabilitation Psychology* had this to say about his expectations (in Elliott, 2006) of articles to be published in that journal:

> As a psychological journal, *Rehabilitation Psychology* places a high premium on theoretical explanations and prediction; in this process, we expect authors will provide studies that advance psychological theory, regardless of the diagnostic conditions that may be under investigation. Studies reporting theory-driven, prospective prediction of meaningful outcomes are particularly encouraged. (p. 1)

Granted, this editor's field is similar to health promotion in its emphasis on practical applications to improve quality of life; therefore, the call for theory-based research is symmetrically balanced with the need to publish studies "that focus on improving quality of life for persons living with chronic disease and disability" (Elliott, 2006, p. 1).

Gioiella (1996) emphasizes that in her field—nursing—theory-based research is a must due to its ability to identify generalizable practices and outcomes. For her,

> Clinical guidelines for much of nursing practice are being and will continue to be developed. These guidelines, to be credible, must be based on sound science. It is, therefore, more important than ever for nurse researchers to do good science, that is, science guided by theory. (p. 47)

Yet, theory-based research not only affects the quality of the final product (i.e., knowledge in the field)—it also makes the processes of conducting and implementing a research project much easier and logical. Imagine a researcher wishes to study the use of condoms among HIV serodiscordant couples (one partner is HIV positive and the other, HIV negative). The researcher could brainstorm an entire list of variables to observe and measure, such as partners' age, education, income levels, knowledge of condom use, knowledge of HIV transmission, duration of the relationship, and so forth, without giving much thought to *why* or *how* these bits of information might help understand couples' use (or nonuse) of condoms in their sexual relationships. However, if the same researcher starts with one or more health behavior theories in mind, he or she will know precisely what to look for and which variables to measure. If, for instance, the investigator chooses to use the Precaution Adoption Process Model—developed specifically to explain "why and how people make deliberate changes in their habitual patterns" (Weinstein & Sandman, 2002, p. 124)—he or she will be interested in assessing in which stage of decision (to take

precautionary action) each member of the couple finds himself or herself. If in addition to the Precaution Adoption Process Model the researcher also thinks from the perspective of the Health Belief Model, he or she will make sure certain variables such as "perceived susceptibility" or "cues to action" will be measured as well (Champion & Skinner, 2008; Hochbaum et al., 1992).

Moreover, theories not only provide a blueprint of *which variables to measure*, they also come to the rescue when it is time to *analyze what was measured*. While it is true that "contemporary research emphasizes statistical technique to the virtual exclusion of logical discourse [or theory]" (Aneshensel, 2002, p. 01), in essence all statistical data analyses are designed to test theoretical predictions, or hypotheses. Although statistical calculations may reveal numerical associations among several variables in a particular study, it is only based on what theory proposes that the researcher can determine whether these numerical associations constitute, in fact, "true" relationships in the population being studied. For instance—using the example of serodiscordant couples mentioned previously—the researcher may find that the variable "perceived susceptibility" is strongly correlated with the couple's use of condoms during sex. Nevertheless, the Health Belief Model (from which he or she derived the "perceived susceptibility" variable) proposes that factors such as age and gender may moderate this relationship between the two variables. In other words, the strength of the association between "perceived susceptibility" and "condom use" may vary, depending on whether the partner is younger/older or male/female. Statistically testing for this moderating effect makes little sense if there is no logical framework proposing the effect, in the first place. Yet a data analyst working without a theory to frame the analysis may completely overlook this important moderating effect because his or her data analysis may not have captured it spontaneously (Aneshensel, 2002).

Quite often we think of theories as existing "out there," buried in a textbook somewhere, and we view them as a series of abstract propositions and statements about a phenomenon. If we're preparing a research project, we usually approach theory as something we must fit in our proposal—usually because our academic department or funding agency requires it—and as something only remotely related to the data we want to collect and the statistical analyses we want to perform.

In contrast, if we learned to think of theories not as abstract statements, unrelated to empirical evidence, but as once-upon-a-time mirrors of reality, or statements resulting directly from theorists' observations of certain phenomena or, in other words, if we could understand theories as having originated themselves

from observations of very concrete events, we might begin to see how theories might actually help us understand our data, right here, right now. Think of it this way: When you were a budding adolescent, full of questions regarding puberty, dating, marriage, and love, you may have approached one of your parents (if you were fortunate to have a good relationship with them) with questions such as: "How do you know when you're falling in love with someone?" or "Why do I get so nervous when I see Janie, and I can hardly say 'hello' without embarrassing myself in front of everyone?" What was your attempt by asking these questions? Most likely you had many motives, but among them was probably this one: You were trying to see whether another (more experienced) person's "theory" could be useful to help you understand your own experience at that point in time. Your mother may have answered these questions in quite "abstract" ways; you may have felt like she was "preaching" to you about the dangers of getting emotionally involved with someone older or about accepting this stage of your life as "normal" and beautiful (as if there was anything beautiful about embarrassing yourself silly because you can't even say hello to someone without turning beet-red! Oh, well . . .).

You get the mental picture I'm trying to paint here: In applying theory to our research, we are invoking experienced scholars' lifetime of trials and errors to see whether they can help us understand our own research questions/objects more clearly and to see whether we can approach our project without having to start from scratch. We often forget that theories' now-abstract statements and propositions emerged once from direct observations, measures, tests, and adaptations of their proponents' own questions (which may have been, in fact, quite similar to the questions we now are pursuing in our own research).

If thought about in this manner, existing theories avoid, oftentimes, that we move in circles in our research; they provide roadmaps for "seeing" the landscape of the journey we're about to begin. Existing theories will point to which variables or factors we should consider measuring and observing. They also propose potential relationships among those variables and specify under which conditions these relationships show up and in which circumstances they are not present (Aneshensel, 2002).

We deal with this topic in much more detail in Chapter 8. There, we examine the role of theory within various types of research models or paradigms. Interestingly, theory will behave and look different, depending on what type of research you do. For now, keep in mind that theories can be extremely useful roadmaps for our research journeys. In this sense, thinking theoretically becomes a rather useful and practical compass.

FINAL THOUGHTS

I hope I have been able to convince, persuade, or at the very least, intrigue you regarding the importance and the value of thinking theoretically about health promotion and public health. In conclusion, I just wanted to offer one extra reason for thinking theoretically, which I encountered when reading an article by Roald Hoffman (an American theoretical chemist who won the 1981 Nobel Prize in Chemistry) (Hoffmann, 2003, pp. 9–11). The reason is not as compelling and convincing as the ones I offered previously because it doesn't sound very "academic," but it is meaningful nonetheless. The reason is this: If you ask Hoffman (2003) "why think theoretically?" one of his answers would be simply "Because 'Tis a Gift":

> Every society uses gifts, as altruistic offerings but more importantly as a way of mediating social interactions. In science the gift is both transparent and central. Pure science is as close to a gift economy as we have. . . . Every article in our open literature is a gift to all of us. Every analytical method, every instrument. . . .
>
> The purpose of theory . . . is "to bring order, clarity, and predictability to a small corner of the world." That suffices. A theory is then a special gift, a gift for the mind in a society . . . where thought and understanding are preeminent. A gift from one human being to another, to us all. (p. 11)

Those of us involved in education know how good we feel when one of our students or clients has that "aha!" look on their faces, and tells us, "I never thought of it [whatever you were teaching] that way." We feel as if we've given them an invaluable present: a new place in which to stand, a new perspective, which can effectively lead to positive transformations in their lives. Public health offers many gifts to us all—health promoting policies and legislation, vaccines, community health practices. Many of these gifts are crucial to our survival and wellness. May it also offer the continued gift of theories, of sense making, and of meaning attribution. Without these, the survival and wellness of the public health profession, and of the public itself, are at serious risk. Remember Tuskegee.

SUGGESTIONS FOR PRACTICING THEORETICAL THINKING

1. Raise these questions in one of your theory classes, or promote a seminar/panel discussion in which the following questions are addressed:
   - Is our professional training preparing us to become health promotion *technicians*, or health promotion *scholars*?

- To what extent are we being trained in the methods and procedures for health promotion and neglecting to learn how to ask the difficult, reflexive questions about our health promotion practice and research?
- Are we currently training public health workers to think theoretically?
- What are we learning about theories and theoretical thinking? Are we learning merely to borrow appropriate explanatory theories from psychology, sociology, and economics to use these in interventions with the public, or are we learning to develop our own theoretical thinking as it applies to our own practice?
- Are we abdicating the right to theorize about health promotion to medical sociologists, ethicists, or anthropologists, claiming that because our field is "applied" we are not responsible for knowledge development, ourselves?
- Who is currently developing the ideology to which the public health workforce holds?

2. What might be other valuable reasons for thinking theoretically about health promotion? Can you and a group of your colleagues identify a few more reasons not outlined in this chapter?
3. When was the last attempt to build a new building in the brickyard of public health or health promotion? When was the last time a new paradigm, or a new set of values and beliefs, sprung up in public health and health promotion? Can you identify at least one of these "turning point" moments in the field? What was the resulting contribution from that paradigm shift? Were there any drawbacks to the shift?

REFERENCES

Alderson, P. (1998). Theories in health care and research: the importance of theories in health care. *British Medical Journal, 317,* 1007–1010.

Aneshensel, C. S. (2002). *Theory-Based Data Analysis for the Social Sciences*. Thousand Oaks, CA: Pine Forge Press.

Argyris, C. (1974). *Theory in Practice: Increasing Professional Effectiveness*. San Francisco: Jossey-Bass.

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.

Bartholomew, L. K., Parcel, G. S., Kok, G., & Gottlieb, N. H. (2006). *Planning Health Promotion Programs: An Intervention Mapping Approach*. 2nd ed. San Francisco, CA: Jossey-Bass.

Biswas, R., Umakanth, S., Strumberg, J., Martin, C. M., Hande, M., & Nagra, J. S. (2007). The process of evidence-based medicine and the search for meaning. *Journal of Evaluation in Clinical Practice, 13,* 529–532.

Buchanan, D. R. (1994). Reflections on the relationship between theory and practice. *Health Education Research: Theory & Practice, 9*(3), 273–283.

Buchanan, D. R. (1998). Beyond positivism: humanistic perspectives on theory and research in health education. *Health Education Research: Theory & Practice, 13*(3), 439–450.

Buchanan, D. R. (2000). *An Ethic for Health Promotion: Rethinking the Sources of Human Well-Being.* New York: Oxford University Press.

Buchanan, D. R. (2004). Two models for defining the relationship between theory and practice in nutrition education: is the scientific method meeting our needs? *Journal of Nutrition Education and Behavior, 36,* 146–154.

Buchanan, D. R. (2006a). Further reflections on a new ethic for health promotion. *Health Education & Behavior, 33*(3), 308.

Buchanan, D. R. (2006b). A new ethic for health promotion: reflections on a philosophy of health education for the 21st century. *Health Education & Behavior, 33*(3), 290–304.

Buchanan, D. R. (2008). Personal Communication.

Busch, M., & Custer, B. (2006). Health outcomes research using large donor–recipient databases: a new frontier for assessing transfusion safety and contributing to public health. *Vox Sanguinis, 91,* 282–284.

Cameron, R., Manske, S., Brown, S., Jolin, M. A., Murnaghan, D., & Lovato, C. (2007). Integrating public health policy, practice, evaluation, surveillance, and research: the school health action planning and evaluation system. *American Journal of Public Health, 97,* 648–654.

Champion, V. L., & Skinner, C. S. (2008). The Health Belief Model. In K. Glanz, B. K. Rimer & K. Viswanath (Eds.), *Health Behavior and Health Education: Theory, Research, and Practice* (4th ed., pp. 45–65). San Francisco: Jossey-Bass.

Chehab, L. G., Pfeffer, B., Vargas, I., Chen, S., & Irigoyen, M. (2007). "Energy Up": a novel approach to the weight management of inner-city teens. *Journal of Adolescent Health, 40*(5), 474–476.

Chen, L.-S., & Goodson, P. (2007). Entering the public health genomics era: why must health educators develop genomic competencies? *American Journal of Health Education, 38*(3), 157–165.

DiClemente, R. J., Crosby, R. A., & Kegler, M. C. (Eds.). (2002). *Emerging Theories in Health Promotion Practice and Research: Strategies for Improving Public Health.* San Francisco: Jossey-Bass.

Elder, J. P., Ayala, G. X., & Harris, S. (1999). Theories and intervention approaches to health-behavior change in primary care. *American Journal of Preventive Medicine, 17*(4), 275–284.

Elliott, T. R. (2006). Editorial. *Rehabilitation Psychology, 51*(1), 1–2.

Fee, E., & Brown, T. M. (2000). The past and future of public health practice. *American Journal of Public Health, 90*(5), 690–691.

Flicker, S., Travers, R., Guta, A., McDonald, S., & Meagher, A. (2007). Ethical dilemmas in community-based participatory research: recommend actions for institutional review Boards. *Journal of Urban Health: Bulletin of the New York Academy of Medicine, 84*(4), 478–493.

Forscher, B. K. (1963). Chaos in the Brickyard. *Science, 142*, 339.

Frank, A. W. (1995). *The Wounded Storyteller: Body, Illness, and Ethics.* Chicago: The University of Chicago Press.

Freimuth, V. S., Quinn, S. C., Thomas, S. B., Cole, G., Zook, E., & Duncan, T. (2001). African Americans' views on research and the Tuskegee Syphilis Study. *Social Science and Medicine, 52,* 797–808.

Garrett, L. (2000). *Betrayal of Trust: The Collapse of Global Public Health*. New York: Hyperion.

Geanuracos, C. G., Cunningham, S. D., Weiss, G., Forte, D., Reid, L. M. H., & Ellen, J. M. (2007). Use of geographic information systems for planning HIV prevention interventions for high-risk youths. *American Journal of Public Health, 97,* 1974–1981.

Gilmore, G. D., Olsen, L. K., Taub, A., & Connell, D. (2005). Overview of the National Health Educator Competencies Update Project, 1998–2004. *Health Education & Behavior, 32*(6), 725–737.

Gioiella, E. C. (1996). The importance of theory-guided research and practice in the changing health care scene. *Nursing Science Quarterly, 9*(2), 47.

Gladwell, M. (2000). *The Tipping Point: How Little Things Can Make a Big Difference*. New York: Little, Brown and Company.

Glanz, K., Rimer, B. K., & Viswanath, K. (2008). *Health Behavior and Health Education: Theory, Research, and Practice* (4th ed.). San Francisco: Jossey-Bass.

Green, L. W. (2006). Public health asks of systems science: to advance our evidence-based practice, can you help us get more practice-based evidence? *American Journal of Public Health, 96,* 406–409.

Green, L. W., & Kreuter, M. W. (2005). *Health Program Planning: An Educational and Ecological Approach* (4th ed.). Boston: McGraw-Hill.

Hinyard, L. J., & Kreuter, M. W. (2007). Using narrative communication as a tool for health behavior change: A conceptual, theoretical, and empirical overview. *Health Education & Behavior, 34*(5), 777–792.

Hochbaum, G. M., Sorenson, J. R., & Lorig, K. (1992). Theory in health education practice. *Health Education Quarterly, 19*(3), 295–313.

Hoffmann, R. (2003). Why buy that theory? *American Scientist, 91,* 9–11.

Homer, J. B., & Hirsch, G. B. (2006). System dynamics modeling for public health: background and opportunities. *American Journal of Public Health, 96*(3), 452–458.

Hunter-Gault, C. (1997). *An Apology 65 Years Late*. Available from http://www.pbs.org/newshour/bb/health/may97/tuskegee_5-16.html

Jackson, C. (1997). Behavioral science theory and principles for practice in health education. *Health Education Research: Theory & Practice, 12*(1), 143–150.

Jones, J. H. (1993). *Bad Blood: The Tuskegee Syphilis Experiment* (New and Expanded Edition ed.). New York: The Free Press.

Katz, R. V., Kegeles, S. S., Kressin, N. R., et al. (2006). The Tuskegee Legacy Project: willingness of minorities to participate in biomedical research. *Journal of Health Care for the Poor and Underserved, 17,* 698–715.

Lantz, P. M., Mujahid, M., Schwartz, K., et al. (2006). The Influence of Race, Ethnicity, and Individual Socioeconomic Factors on Breast Cancer Stage at Diagnosis. *American Journal of Public Health, 96,* 2173–2178.

Leischow, S. J., & Milstein, B. (2006). Systems thinking and modeling for public health practice. *American Journal of Public Health, 96*(3), 403–405.

Malebranche, D. J. (2003). Black men who have sex with men and the HIV epidemic: next steps for public health. *American Journal of Public Health, 93*(6), 862–865.

Marmede, S., Schmidt, H. G., & Rikers, R. (2007). Diagnostic errors and reflective practice in medicine. *Journal of Evaluation in Clinical Practice, 13,* 138–145.

McCallum, J. M., Arekere, D. M., Green, B. L., Katz, R. V., & Rivers, B. M. (2006). Awareness and knowledge of the U.S. Public Health Service Syphilis Study at Tuskegee: implications for biomedical research. *Journal of Health Care for the Poor and Underserved, 17,* 716–733.

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly, 15*(4), 351–377.

Merriam-Webster. Merriam-Webster OnLine. Available from http://www.merriam-webster.com/dictionary

Minkler, M. (1989). Health education, health promotion and the open society: an historical perspective. *Health Education Quarterly, 16*(1), 17–30.

Minkler, M. (1999). Personal responsibility for health? A review of the arguments and the evidence at century's end. *Health Education & Behavior, 26*(1), 121–140.

Minkler, M. (2000). Using participatory action research to build healthy communities. *Public Health Reports, 115*, 191–197.

Minkler, M. (2004). Ethical challenges for the "outside" researcher in community-based participatory research. *Health Education & Behavior, 31*(6), 684–697.

Minkler, M., & Wallerstein, N. (Eds.). (2003). *Community Based Participatory Research for Health*. San Francisco: Jossey-Bass.

Minkler, M., Blackwell, A. G., Thompson, M., & Tamir, H. (2003). Community-based participatory research: implications for public health funding. *American Journal of Public Health, 93*, 1210–1213.

Moore, S., Shiell, A., Hawe, P., & Haines, V. A. (2005). The privileging of communitarian ideas: citation practices and the translation of social capital into public health research. *American Journal of Public Health, 95,* 1330–1337.

National Commission for Health Education Credentialing. Available from www.nchec.org

Neuhauser, L., Constantine, W. L., Constantine, N. A., et al. (2007). Promoting prenatal and early childhood health: evaluation of a statewide materials-based intervention for parents. *American Journal of Public Health, 97,* 1813–1819.

Norgaard, L. S., Morgall, J. M., & Bissell, P. (2000). Arguments for theory-based pharmacy practice research. *The International Journal of Pharmacy Practice, 8,* 77–81.

Nyswander, D. B. (1967). The open society: its implications for health educationers. *Health Education Monographs, 22,* 3–15.

Oakes, J. M. (2002). Risks and wrongs in social science research: an evaluator's guide to the IRB. *Evaluation Review, 26*(5), 443–479.

Patton, M. Q. (1997). *Utilization-Focused Evaluation: The New Century Text.* Thousand Oaks, CA: Sage Publications.

Pert, C. B., & Marriott, N. (2006). *Everything You Need to Know to Feel Go(o)d*. Carlsbad, CA: Hay House, Inc.

Pert, C. B., Ruff, M. R., Weber, R. J., & Herkenham, M. (1985). Neuropeptides and their receptors: a psychosomatic network. *The Journal of Immunology, 135*(2), 820s–826s.

Potvin, L., Gendron, S., Bilodeau, A., & Chabot, P. (2005). Integrating social theory into public health practice. *American Journal of Public health, 95,* 591–595.

Rasberry, C. N., & Goodson, P. (2006). Health Education. In F. W. English (Ed.), *Encyclopedia of Educational Leadership and Administration* (Vol. 2, pp. 452–455). Thousand Oaks, CA: Sage Publications.

Reeve, B. B., Burke, L. B., Chiang, Y.-P., et al. (2007). Enhancing measurement in health outcomes research supported by agencies within the US Department of Health and Human Services. *Quality of Life Research, 16,* 175–186.

Resnicow, K., & Page, S. E. (2008). Embracing chaos and complexity: a quantum change for public health. *American Journal of Public Health, 98*(8), 1382–1389.

Rimer, B. K., Glanz, K., & Rasband, G. (2001). Searching for evidence about health education and health behavior interventions. *Health Education & Behavior, 28*(2), 231–248.

Robertson, A., & Minkler, M. (1994). New health promotion movement: a critical examination. *Health Education Quarterly, 21*(3), 295–312.

Rogers, E. M. (1962). *Diffusion of Innovations* (5th ed.). New York: Free Press.

Rogers, N. (2007). Race and the politics of polio: Warm Springs, Tuskegee, and the March of Dimes. *American Journal of Public Health, 97,* 784–795.

Simons-Morton, D. G., Simons-Morton, B. G., Parcel, G. S., & Bunker, J. F. (1988). Influencing personal and environmental conditions for community health: a multilevel intervention model. *Family and Community Health, 11*(2), 25–35.

Trochim, W. M., Cabrera, D. A., Milstein, B., Gallagher, R. S., & Leischow, S. J. (2006). Practical challenges of systems thinking and modeling in public health. *American Journal of Public Health, 96*(3), 538–546.

Tuskegee University. *History of Tuskegee University*, 2008. Available from http://www.tuskegee.edu/Global/story.asp?S=1070392

Vogt, W. P. (2005). *Dictionary of Statistics & Methodology: A Nontechnical Guide for the Social Sciences* (Vol. 3rd). Thousand Oaks, CA: Sage Publications.

Weinstein, N. D., & Sandman, P. M. (2002). The Precaution Adoption Process Model. In K. Glanz, B. K. Rimer & F. M. Lews (Eds.), *Health Behavior and Health Education: Theory, Research, and Practice* (pp. 121–143). San Francisco: Jossey-Bass.

Whitehead, D., & Russell, G. (2004). How effective are health education programmes—resistance, reactance, rationality and risk? Recommendations for effective practice. *International Journal of Nursing Studies, 41,* 163–172.

Willinsky, J. (1998). Teaching literature is teaching in theory. *Theory Into Practice, 37*(3), 244–250.