THE HISTORY OF HUMAN RESOURCE DEVELOPMENT

Understanding the Unexplored Philosophies, Theories, and Methodologies

MATTHEW W. GOSNEY
& CLARETHA HUGHES

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Matthew Gosney

I'm extremely grateful to two loving parents who taught me right from wrong, a love of learning, and a value system that provides sure footing in challenging times. I'm happiest and most successful in my life when I live the way I was taught. I also wish to thank my wonderful wife, Sharon, and my son, Grayson. Both of you fill my days with immense joy. The two best titles I have are husband and father—I do my best to honor them. Mom, Dad, Sharon, and Grayson—this one is for you.

Claretha Hughes

I would like to dedicate this book to my late father Eugene Hughes Sr., who was a foreman in the 1950s in Lake City, South Carolina.

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Introduction to HRD History and Critical Thinking Theory

On Saturday evening, January 7, 2012, a TV commercial for the prescription drug Chantix depicted a loving wife expressing a desire to stop smoking for the benefit of her husband and children. A voice-over began describing the potential side effects of the medication. The side effects become starker, with the voice-over calmly suggesting, "If you notice changes in your behavior such as a powerful, overwhelming desire to kill the person you love most, call your doctor right away" (*Saturday Night Live*, 2012). The couple, upon hearing the escalating severity of these side effects, looked at each other in horror.

This was of course a parody, created by the witty writers and performers of *Saturday Night Live*, of the ubiquitous direct-to-consumer drug advertisements that are so common in the United States. In 1997, the Food and Drug Administration reviewed and amended the guidelines governing prescription drug advertising on television (Center for Drug Evaluation and Research, 2001). Unsurprisingly, in the years that followed the guidelines revision, annual spending on direct-to-consumer advertising of prescription drugs grew from $11.4 billion in 1996 to $29.9 billion in 2005 (Donohue, Cevasco, & Rosenthal, 2007).

The humor in the parody comes from the list of increasingly disturbing side effects—information that, prior to 1997, had not been available to consumers in such a facile manner as through their television screens. While the benefits and drawbacks of direct-to-consumer prescription drug advertising can be and has been vigorously debated (Huh & Becker, 2005), the intent behind both broadening the scope of advertising and including the list of side effects is simple: to provide consumers an opportunity to make a more fully informed decision about their own healthcare choices (Siegel, 2000). Alarming and frightening side effects notwithstanding, the American public's utilization of these medications has only

increased along with its appetite for healthcare services in general (Iizuka & Zhe Jin, 2005). In fact, one may argue that the listing of the potential side effects, no matter how horrific, is ultimately an enabling force in the drug's usage.

HRD Professionals and Transparency

This idea of transparency, of course, is not unique to the prescription drug field. In fact, transparency as a construct is a stated element of human resource development (HRD) ethical practice. In reviewing the Standards on Ethics and Integrity (1999) of the Academy of Human Resource Development (AHRD), one finds respect for people's rights and dignity among the listed general principles. Delving deeper, the academy specifies what such respect entails, stating "when HRD professionals provide services to an individual, a group, or an organization, they make available appropriate information beforehand about the nature of such services and, later, appropriate information on results and conclusions" (p. 4). A fair question may be: How many HRD professionals are aware of this injunction from the academy? A follow-up question may be: What level of transparency is appropriate, and on what topics?

While obvious differences exist between the requirements of the pharmaceutical industry and those of the HRD professional, there remains something substantial yet poorly considered in the previous phrase to "make available appropriate information." The same baseline expectation of transparency is required of the HRD professional as it is of the Big Pharma company advertising its latest miracle drug. What is somewhat self-evident when considering the notion of appropriate information are the basics of an HRD intervention such as what the intervention is intended to do, what it definitely will not do, and—as the new HRD professional shortly learns—what the cost of said intervention is. These elements would be analogous to the drug company's statements of a drug's intended purpose and cost. True transparency, however, makes explicit not only the obvious elements of the intervention but also the hidden assumptions upon which the intervention is based.

Unfortunately for many HRD professionals, the existence of methodological and theoretical assumptions, hidden or otherwise, is not part of their professional training. The ability to evaluate a methodology or theory, tease out its underlying philosophy, and articulate the assumptions upon which the philosophy is based is no small feat. Therefore, increasing transparency on this topic is a significant ask of the discipline.

Nevertheless, the academy's own articulation in 1999 of its ethics and standards would suggest that an attempt is necessary.

Hidden Assumptions, Lack of Transparency, and/or Lack of Knowledge

The problem with hidden assumptions is, frankly, that they are hidden. In other words, very rarely does an HRD methodology, intervention, tool, or process come with a large disclaimer stating the assumptions upon which it is based. In fact, oftentimes the theories upon which interventions are based are just as unknown as their assumptions. How is this so? you may ask. Or, just as importantly, why is this so? The answers to "how" and "why" are inextricably tied to the unique nature of HRD as a discipline.

Not unlike other fields such as chemistry, HRD is a field whose applications originated from trial and error or hidden assumptions. This is not to say that there was an irrational effort to solve problems faced within workplaces. Without a theoretical basis or knowledge of the need for a theoretical foundation upon which to base their actions, leaders in the HRD field were trying to meet immediate needs to enhance productivity. Leaders and professionals in HRD have subsequently realized that to be considered a legitimate academic discipline, and to secure credibility, hidden assumptions, lack of transparency, and lack of theoretical knowledge must be reduced or completely eliminated.

There is no easy way to inform HRD professionals who are achieving positive results that they must change to better meet the needs of employees. If it is not broke, why fix it? Acclimating human beings to change requires time that many for-profit organizations cannot afford to set aside because they want to remain competitive; however, without investing the time to properly develop their human resources, the organizations may be doomed to failure.

The Theory and Practice Continuum and HRD

HRD is a field dominated by the practitioner (Chalofsky, 2004), a condition that not all disciplines share. Imagine a continuum for various disciplines. On one end of the continuum are disciplines rooted nearly completely in the arena of academia and where theory almost wholly guides practice. Anthropology is a discipline (Thompson, 1972) that one would imagine on this extreme end. In the middle are disciplines that strike a balance between theory and practice. A tenuous (sometimes contentious) but explicit relationship between theory and practice is clearly

evident—one informs the other. Psychology is a discipline that attempts to strike this balance.

On the other extreme end of the continuum sits HRD—a discipline with two distinct camps: the theoretician and the practitioner. In the arena of HRD, practitioners far outnumber theoreticians, a fact that undoubtedly contributes to its placement on the theory/practice continuum. Another contributing factor to the dissonance between the HRD practitioner and scholar is where most HRD practice occurs—within a larger organizational context. And, in most cases, the organizational context includes the desire for profitability and growth. Most organizations have identified the need for HRD-related solutions in order to succeed. Yet, it is critical to note that, under such circumstances, HRD is a discipline in service of a greater master; in this case, the vitality of its sponsoring organization. As Gosney (in press) wrote, the theory/practice debate is not rooted in the practitioner's unwillingness to learn and apply theory. It is rooted instead in the competing interests of the organization and its ever-present need for expediency and fecundity.

The Challenge of Theory Building

HRD is a discipline largely practiced by individuals highly motivated to produce results, profit (or at least lower costs), and growth. It is no wonder that the practitioner's attention is easily drawn to any theory or practice that assists in the effort to deliver said results. Galagan (1986) commented on the haphazard nature of HRD theory and practice, describing it as

> an omnivorous discipline, incorporating over the years almost any theory or practice that would serve the goal of learning in the context of work. Like an amoeba, it has ingested and taken nourishment from whatever it deemed expedient in the social and behavioral sciences, in learning and business. Indeed, it is a field that has borrowed heavily over the years from other disciplines, and will continue to do so in order to apply the best approaches to the learning needs of the workplace. (p. 4)

Such a description paints a dire picture for purposeful theory building in HRD. And yet, the need for theory building in the discipline still exists. Jacobs (1990) commented:

> At some point, the continued development and vitality of a profession depend as much on advances in the theoretical aspects as on the social or organizational aspects. HRD seems to have arrived at this point. Continued

> refinements and advances in practice now more than ever depend on increased understanding of related theory and research. (p. 66)

The call for a firmer theoretical basis for HRD (Swanson, 1992), and an increased tension between theory and practice (Kuchinke, 2004), has only continued since Jacobs's comments. In arguing that HRD is not, in and of itself, an academic discipline, Kuchinke (2001; 2008) notes that HRD theory and practice draws from a wide swath of extant disciplines—a notion that is, at this point, widely held and generally accepted (Ardichvili, 2008, 2012; Kessels, 2007; Lincoln & Lynham, 2011; Swanson, 1999a; Torraco, 2004). This acceptance may lead to complacency and lack of credibility for academicians who are striving to elevate HRD to an accepted discipline. The lack of a stable home college is yet another problem for the discipline. HRD cannot be found in a consistent academic college across various four-year colleges and/or universities (Kuchinke, 2002).

Swanson (1999a) argues that a simple acquiescence to a multidisciplinary approach is fool's gold. He warns that "in an attempt to be inclusive of so many theories—staking its claim so broadly—it has come up with no theory" (p. 2). Swanson suggests that HRD theory be built upon a three-tiered approach of economic, psychological, and systems theory (with a base, or solid foundation, in ethics.) He suggests that "these three theories more than any others make up the theory of P[erformance] I[mprovement] and respond to the realities of PI practice, and that each is unique, robust, and complementary to the others" (p. 11).

While Swanson's three-legged stool approach (1999a; McLean, 1998) is a well-adopted paradigm in current HRD (Iles & Yolles, 2003), there are many who would suggest other metaphors for HRD. Table 1.1 reviews a sample of theoretical takes on the discipline of HRD by Swanson and others. As can be seen from a review of the various entries, there remains a broad and diverse approach to the question of HRD theory. One can almost feel the existential angst of the discipline in reviewing the various, well-intentioned metaphors. It is also fair to ask, is all of this discussion regarding theory "sound and fury, signifying nothing" (Shakespeare, *Macbeth*, act 5, scene 5)? The utility of theory building itself has been called into question (Keefer & Yap, 2007).

Herein lies the problem. HRD is a multidisciplinary discipline, practiced largely by individuals who are not formally trained in an academic program designed to root the practitioner in sound theory. The ridiculousness of such a scenario is artfully described by Bartlett (2003) who "begs the question of whether firms would encourage or even allow an accidental accountant or accidental lawyer to administer financial or legal concerns for the organization" (p. 231). And yet, organizations are littered

Table1 .1 Metaphors of HRD

Authors	*Metaphor*	*Rationale*
Swanson (1995, 1999a)	Three-legged stool	Each leg represents a main foundation of HRD (economics, psychology, systems theory)
Willis (1997)	Downstream river	The "HRD river" has evolved so completely as to be distinct from its contributing upstream tributaries (adult education, instructional design and performance technology, business and economics, sociology, cultural anthropology, organization theory, communications, philosophy, axiology, human relations)
Lee (1998)	Clover	HRD as the integration of theory, practice, and being in a diverse, dynamic, eclectic, and vibrant community
McLean (1998)	Octopus	HRD finds its roots in many varied disciplines and is a living, evolving construct, composed of but not limited to systems theory, economics, psychology, organizational development, anthropology, sociology, and speech communications
Grieves and Redman (1999)	Wagon train	HRD as a linear journey through time and space, yet experiencing periods of uncertainty, struggle, and confusion
Lee (2001)	Heraclitus	HRD is a changeable, emergent construct
McGoldrick, Stewart, & Watson (2001)	Hologram	HRD has a multilayered context that is subject to constant flux
Walton (2003)	Theater	Performance as part of a coherent drama-based gestalt for HRD

Note: Adapted from "The Disciplinary Development of HRD: A Delphi Study," by D. McGuire and M. Cseh, 2004. Presented at the 5th UFHRD/AHRD Conference, University of Limerick, May 27–28, 2004.

with "accidental" HRD professionals so distracted with the urgency of their practice that they either spurn theory or embrace whatever theory appears most engaging at the moment. And, as evidenced in table 1.1, HRD theoreticians continue to generate more diverse theories without engaging skilled practitioner partners to vet and prove said theories.

Philosophy, Theory, and Practice

It may disappoint the reader to learn, early in the first chapter of this book, that no silver bullet solution for the above problem is included

herein. Others have noted this challenge in HRD and have attempted to address it—particularly as it relates to theory building. A seminal discussion of the topic was provided by Lynham (2000) in which she outlined the need for sound theory in the discipline of HRD. Enumerating the next steps for HRD she wrote:

> We must commit to conversations to agree to and clarify inclusive, multiple theory-building research paradigms at a philosophical (ontological and epistemological) rather than just a methods level . . . we must conduct rigorous and relevant research to develop, and make explicit and available, multiple methods and paradigms of theory building to the HRD researcher and practitioner. (p. 175)

Note in Lynham's comments a clear suggestion of a link between philosophy, theory, and practice with an explicit expectation that such a link implies a multinodal, iterative causal loop. Theory informs practice. Practice informs theory. Philosophy informs both.

Lynham (2002) continues to reinforce this idea of theory building in later writings by charging the theory builder with rooting theory axiomatically. Axiology, the study of value or utility, is itself a construct of philosophy and further adds to this notion of linkage between theory, practice, and philosophy. The emphasis on axiology is clearly no accident. HRD theory's best chance of practice and adoption is to define itself in clear axiomatic—or practical—terms. Ruona and Lynham (2004) also called for HRD to embrace a more robust examination of philosophy as informer of theory and practice. They articulated several benefits to the discipline for so doing; including "(1) practical ways of thinking about certain types of questions (questions of the nature of reality, truth and ethics) and (2) the use of logical argument, disciplined reflection and theoretical reasoning through the invoking of this process of continual questioning" (p. 158). Therefore we consider this idea of philosophy and its influence on both theory and practice.

HRD and Unconscious Philosophy

The philosopher Jaspers (1951) noted that the Greeks defined philosophy as the love of wisdom. He expounds on the current purpose of philosophy by stating:

> This meaning of the word still endures: the essence of philosophy is not the possession of truth but the search for truth, regardless of how many philosophers may believe it with their dogmatism, that is, with a body of

> didactic principles purporting to be definitive and complete. Philosophy means to be on the way. Its questions are more essential than its answers, and every answer becomes a new question. (p. 12)

Here, Jaspers suggests that philosophy is a journey; in fact, a journey to attempt to understand the world and the human organisms' place in that world. It has been suggested that many of history's greatest scientific achievements have occurred as the species has cobbled together, examined, reexamined, formulated, and reformulated their assumptions of the world and its workings (Gengerelli, 1937). Indeed this is the elegant intersection of theory and practice—where the examined life of Socrates yields both understanding and practicality (Plato, 1966).

Attention has, unfortunately, rarely been paid to this notion of philosophy in HRD. In discussing the core beliefs and underlying principles of modern-day HRD, Swanson and Holton (2001) specifically note the general lack of focus on underlying philosophy and assumption in the field. While Swanson and Holton attribute this lack of attention to the "busy, action-oriented" (p. 9) nature of the HRD professional, one must wonder if this is reason enough to leave largely unexamined the philosophical underpinnings of a discipline.

Jaspers (1951) stated that "there is no escape from philosophy. The question is only whether a philosophy is conscious or not, whether it is good or bad, muddled or clear. Anyone who rejects philosophy is himself unconsciously practicing a philosophy" (p. 12). Implied in Jaspers's comments is a challenge to shine light on unconsciously practiced philosophies. Given Swanson and Holton's acknowledgement of a lack of focus and attention to philosophy in HRD, it could be argued that HRD does *indeed* practice an unconscious philosophy (or philosophies). Jaspers might contend that these unconscious philosophies could be good or bad. Undisclosed and unexamined, these unconscious philosophies wield influence without acknowledgement. Or, as Whitehead (1926) stated, "Every philosophy is tinged with the colouring of some secret imaginative background, which never emerges explicitly into its trains of reasoning" (p. 9).

Of course, HRD is not the only discipline to be so vexed with unexplored, hidden philosophical assumptions upon which its theory and practice are based. Psychology, an academic discipline from which HRD draws heavily, has experienced a similar angst in the closer philosophical examination of its underlying theories (Slife & Williams, 1997), a topic which engendered no small amount of debate within the discipline (Slife, 2000). Psychology, albeit begrudgingly, has acknowledged the need for this type of self-examination. We suggest that HRD also needs a similar self-examination. HRD, much like the discipline of psychology, may

benefit from an increased meta-evaluation of the "formal theories, models, techniques and methods inherent in the discipline" (Slife & Williams, 1997, p. 126).

An example that supports the need for examination is as follows: Some clearly defined roles of the HRD professional are employee, management, and executive development (Swanson & Holton 2001). A common tool used by the HRD professional is the Myers-Briggs Typology Inventory, or MBTI (Moutafi, Furnham, & Crump, 2007; Sieff, 2009; Wilde, 2011). The MBTI was originally developed and validated as a means by which to empirically identify Jungian archetypes in individuals (Richek & Bown, 1968). Jungian personality theory carries with it an implicit endorsement of concepts such as a priori innateness of trait and thus an inferred determinism (Goodwyn, 2010). It is doubtful whether many, if any, HRD professionals are aware of this history of the MBTI. The dilemma for the HRD discipline is to answer the following questions and determine the extent of the need for this historical knowledge. Should practitioners utilizing the MBTI be aware of the fundamental assumptions upon which the tool rests? Is an eclectic approach to HRD acceptable and encouraged? Do the assumptions of the tools and models that HRD professionals utilize violate the spare—yet firmly held—core values of the profession? If so, what other tools and models are available to the practitioner? Providing some of this knowledge is one aim of this book.

Returning again to Jaspers's (1951) quote, there is "no escape from philosophy" (p. 12). The only question is whether the philosophy practiced is explicit or hidden—are the assumptions known or unknown? At this point in the development of the HRD discipline, it could be argued that most of the philosophical assumptions upon which its theory is based (and practiced) are hidden. We will spend a moment delving into some of the most common HRD philosophical assumptions that HRD professionals are likely to encounter when examining its theory and practice.

Philosophical Assumptions and HRD

As mentioned previously, philosophy literally means the love of wisdom. It is a discipline—in fact, it is *the* discipline—that seeks to make sense of the world we inhabit in totality. While other disciplines carve out subsets of the world to study (e. g. the mind, society, culture, biology, chemistry, economics, and so on), philosophy concerns itself with understanding the reality upon which all other disciplines reside. (This, incidentally, is the reason one earns a *Doctor of Philosophy* or PhD in a particular field. Philosophy in this case references back to this love and pursuit of

wisdom—whatever the domain.) As Jaspers (1951) noted, philosophy is as much about the exploration and journey as it is about the answers it develops. Philosophy, then, becomes the building materials upon which theory is constructed and practice springs forth.

Consider, further, this metaphor of building materials. In constructing a home, one could choose from a wide variety of materials: brick, wood, steel, adobe, even vinyl or plastic. Each option brings with it inherent assumptions about the nature of home-building. Is a home a place that should last for centuries or no more than a day? Is its primary function shelter, status, or protection? These assumptions about what constitutes a home lead to choices about building materials and, eventually, the design choices made and how the home is eventually utilized. What we see and use is the finished house (practice). The models of construction we use (theory) are based, in part, upon the materials we choose. Less explicit, indeed what may be considered hidden, are the assumptions upon which these choices of design and use rest.

While the home-building analogy is not comprehensive, it does illustrate a key point: it is no easy thing to unearth philosophical assumptions. It is a *metatheoretical* task—"the *reflection* on theories, and on the history, status, connection, and development of psychological concepts, methods, ideas, and worldviews" (Teo, 2009, p. 1). In describing the aim of theoretical psychology in exploring these same hidden assumptions of that particular discipline, Teo (2009) wrote:

> Theoretical psychology . . . refers to metatheoretical work. All psychologists rely on theories, either explicitly or implicitly in their empirical studies and practices. In that sense, all psychologists use and to a certain degree contribute to theoretical psychology; but not all psychologists reflect upon their own explicit and implicit theories and assumptions and contextualize them within philosophical domains. (p. 1)

Likewise, HRD can benefit from an examination of the explicit and implicit assumptions of its theories. And, like psychology, these assumptions can indeed be contextualized within common philosophical domains.

It is important here to note that the intent of this work is not to inform the reader of every possible philosophical assumption that may exist in HRD. In fact, we will very likely only scratch the surface of what is a multitude of assumptions. What we shall attempt to do, instead, is provide insight into some of the most prevalent assumptions. With a solid understanding of these most common assumptions, and an appreciation for the implications said assumptions carry, the reader will be prepared to

better examine a multitude of theories and trace the philosophical roots of these theories.

We will also not endeavor at this time to list each philosopher whose work is grounded upon these assumptions. A more detailed review of specific philosophers and their link to HRD theory and practice will occur later in this book. Sufficient for now is a review of the most common assumptions. The reader will find that, in fact, many philosophies are grounded upon similar assumptions—though occasionally reaching said assumptions from different angles. Slife and Williams (1995) provide a categorizing framework for philosophical assumptions that we shall adopt as well: *necessity* and *possibility*. Table 1.2 outlines these two framework categories, as well as the philosophical assumptions and subassumptions that populate the categories.

Necessity is the notion that "events…*must* (of necessity) happen the way they do" (Slife & Williams, 1995, p. 212). A first and notable assumption that falls into this category of necessity is that of *determinism*. Determinism is the notion that individuals act because of, and for no other cause than, an external influencing factor (Slife & Williams, 1995). The source of that external influencing factor can be varied. The influencing factor may come from an accumulation of previous experience, or the culture in which one lives. Inasmuch as the operation of one's genetic code is external to one's conscious self, it could be said that genetic and evolutionary factors determine one's actions (Cartwright, 2000) resulting in a subset of determinism called *biologization*. Biologization is the notion that one's actions are caused by biological forces such as genetics (Slife, Burchfield, & Hedges, 2010).

Also under the category of necessity is the assumption of *reductionism*; the notion that events and ideas are best understood at—and can indeed be reduced to—the smallest level. Or, as described by Wilson (1998), "It is the search strategy employed to find points of entry into otherwise impenetrably complex systems" (p. 59). Several types of reductionism

Table1 .2 Categories of philosophical assumption

Category	*Assumption*	*Subassumption*
Necessity	Determinism	Biologization
	Reductionism	Materialism
		Mechanism
		Temporal reductionism
		Evolutionary reductionism
Possibility	Free will	
	Contextualism	

are notable. The first is *materialism*; a dual part assumption that "everything is physical" and that "physical facts determine all facts" (Hellman & Thompson, 1977, pp. 310). A next subcategory of reductionism is *mechanism*; "the tendency to see things and events in the world as being something like a machine…composed of smaller pieces working smoothly together, the working of the whole being lawfully determined and necessary" (Slife & Williams, 1995, 134–135).

Two additional types of reductionism are particularly notable. The first is *temporal reductionism*; the notion that

> any one moment in time contains only a reduced portion of the process. That is, if a process begins at Time 1, continues through Time 2, and ultimately culminates at Time 3, the process *as a whole* literally never exists. Only part of the process can occur *at any one moment* in time. (Slife 1993, p. 20)

A final type of reduction, similar to biologization, is *evolutionary reductionism*; the idea that behavior, particularly, is best understood through epigenetic rules— "algorithms of growth and differentiation that create a fully functioning organism" (Wilson, 1998, 163). While clearly related to biologization, the two are subtly different. Biologization suggests that behavior is caused by a biological factor. Evolutionary reductionism suggests that behavior can be reduced to a genetically programmed algorithm. Undoubtedly, the two are tightly related.

The second category of philosophical assumption, per Slife and Williams (1995), is possibility. It is "a category of assumptions with no 'must' in [that] the events observed…do not have to happen as they do" (p. 216). While not possessing the same broad range of assumptions and subassumptions as necessity, the category of possibility provides an important dichotomy. Perhaps the most critical assumption under the category of possibility is *free will*; the assumption that organisms possess the possibility to act other than they did, and that the manner of action was at least a partially conscious choice.

An additional philosophical assumption that falls under the category of possibility is that of *contextualism*; the idea that "ability and action is constrained…by context" (Slife & Williams, 1995, 217). The precise nature of the context is, of course, varied depending upon the philosophy. Context could be determined by language, teleology (end goal or purpose), or any other number of factors. However, unlike the assumption of reductionism, the assumption of contextualism suggests that nothing is irreducible—to understand the part, one must consider the whole.

Now that the reader has a basic understanding of some of the fundamental assumptions of philosophy, a new capacity for theoretical analysis

and practice is possible. Unearthing hidden assumptions is not simple work. Metatheoretical work requires skill; a skill that may be underdeveloped, underutilized, and certainly underemphasized—critical thinking. It is to this skill of critical thinking that we now turn our attention.

Critical Thinking in HRD

Critical thinking involves an integrated approach to analyzing, organizing, and dealing with issues (Glaser, 1984). It involves careful analysis of facts, understanding the relationship of ideas, considering past influences, and being able to look at situations in new ways (Brookfield, 1987). HRD professionals, when faced with difficult situations, must be able to objectively explore the situation further by asking questions of themselves and others.

Asking appropriate and probing questions when dealing with important issues is one of the most important tools of critical thinking. Effective questions enable HRD professionals to better assess difficult situations, so that they may then identify the options and weigh the potential consequences. Getting answers to HRD theory and practice questions gives these professionals comprehensive information to deal with situations more productively.

HRD professionals face and must work through complex problems on a daily basis (Ruona & Gibson, 2004). It is essential to define the problem first. All too often HRD professionals try to solve problems before truly knowing what the problem is. This occurs because they are solving problems that are presented to them by others in the workplace. Problems that do not originate from their office should be extensively analyzed to determine appropriate solution processes to employ.

Thinking critically about problem solving begins with reflecting on what the HRD professional knows about the problem and defining the problem as accurately and completely as possible. This is the key reason that practitioners must understand the business within which they are working. Because problems are often presented to them, the critical thinking curve will be shorter if they can begin from a frame of reference about the problem. They must analyze the issue, strive to make sense of the situation, and remain open and flexible to the input of others. If, while trying to figure something out, they remain fixed on their own views, they often miss out on crucial information related to the people, events, and context that is being dealing with. One size does not fit all. The content or delivery method of "out of the box" or "off the shelf" solutions must often be adapted to meet the needs of the specific workplace situation. When

making a decision to help solve workplace problems, it is important to think things through with a critical examination of all relevant information. Examining the hard facts and data, exploring emotional cues (signs), finding unbiased perspectives for more information are all critical thinking examples that allow the HRD professional the opportunity to make more thoughtful, confident decisions (Urquhart et al., 2003).

Historya ndH RD

Returning once again to Jaspers notion of philosophy as a journey, one could rightly expect philosophy to change, emerge and reemerge, and wield influence throughout humankind's history. As outlined previously in this chapter, philosophical assumptions exist in HRD theory whether or not we choose to so acknowledge them. Such being the case, a compelling opportunity exists for those in the HRD discipline to more carefully review its history—this time with a critical eye to the underlying philosophies and philosophical assumptions underpinning its seminal events and theories.

This knowledge provides the learner with information that can be used to build a critical thinking skill set as well as a broader understanding of the assumptive implications of HRD theories espoused or practices utilized. Leveraging history as a milieu for such work is consistent across disciplines. Recall again Teo's (2009) description of theoretical psychology as "the *reflection* on theories, and on the history, status, connection, and development of psychological concepts, methods, ideas, and worldviews" (p. 1). This text provides reflections on the history and development of concepts, methods, and ideas in HRD for the purpose of making plain its philosophical assumptions and building a critical thinking skill set.

Using History to Understand HRD Theory

Using history as an approach to understanding theory does, in fact, have a theoretical basis: Vygotsky's (1997) historical context theory. Vygotsky lists three criteria for historical analysis of scientific theory. They are: (1) the general sociocultural context of the time period, (2) the theorems and laws guiding scientific knowledge at the time, and (3) the objective demands placed upon scientific knowledge after its introduction into the general body of knowledge as a whole. Critical to this model is the idea of historical context. To understand the utility of any aspect of scientific knowledge, one must first understand the historical context in its full extent—sociocultural as well as specific to the discipline. The third point

is equally critical. Vygotsky implies a necessary historical utility for scientific knowledge being evaluated.

While Vygotsky's original intent was to build a scientific methodology based upon historical evaluation, this work does not claim the establishment of scientific knowledge per se. Instead, the spirit of Vygotsky's theory is espoused. Our exploration of HRD history proceeds with an understanding that the seminal events in the development of HRD are to be understood and evaluated through: (1) the sociocultural context of the time period during which they occurred; (2) the predominant informing theories and philosophies of the same time period; and (3) the utility of the output of those seminal events to the discipline. It is through approaching the history of HRD in such a manner that assumptions of philosophy that were implicit in historical context become explicitly understood as the discipline is practiced today.

Gosney's model of modern era theory and practice generation in HRD (figure 1.1) will guide us as we begin to move through the history of HRD.

A quick review of the model will prove helpful. The central focus of the model is the interplay between theory and practice. Here, the model suggests some level of interaction between HRD theory and HRD practice;

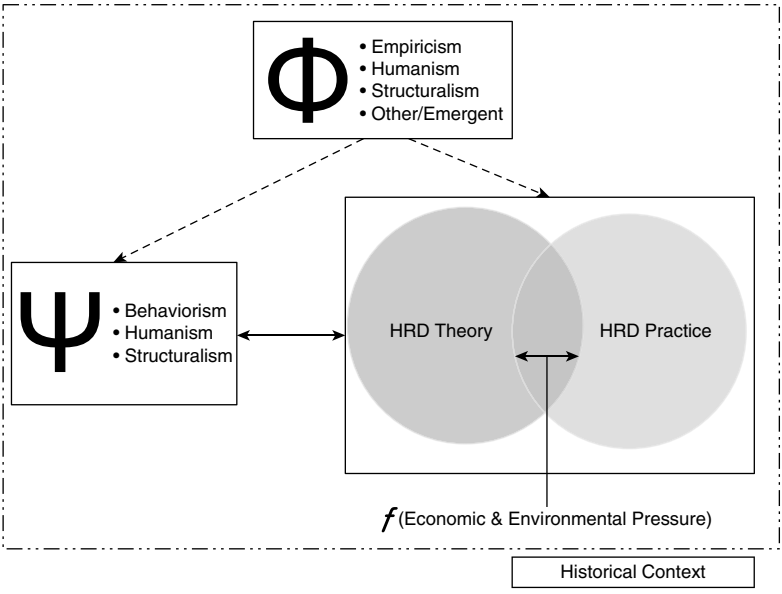

Figure 1.1 Gosney's model of modern era theory and practice generation in HRD.

however, the degree of interplay between the two is, at any time, a function of the economic and environmental pressure that exists in the field of practice; the greater the economic and environmental pressures, the less connectivity between theory and practice. The model also makes explicit the contributions of psychology to HRD theory generation. As has already been discussed, HRD as a discipline draws its theory from a wide variety of sources. The historical review contained in this text suggests that psychology (while not exclusive) is certainly preeminent as a contributor to HRD theory and practice. The bidirectionality of the arrow between psychology and HRD theory also suggests that HRD has become an outpost of psychological theory building and practice. HRD theory and practice, while largely informed by the discipline of HRD, is also in a position to inform the theory of the psychology discipline through its own work and findings.

The model also makes clear the hidden influence of philosophy upon both the theory and practice of psychology and HRD. As we progress through the history of HRD, the reader will gain greater clarity around the specific elements of psychology and philosophy listed in the model (e.g. empiricism, humanism, structuralism, behaviorism, etc.). It should be noted that this list of influences is not intended to be inclusive. Instead, the list is intended to be illustrative and compendious; not everything will be captured, however, the major influencers shall be.

Finally, the model suggests the critical nature of historical context in understanding the interplay between philosophy, theory, and practice. Given the previous discussion around philosophical assumption, the astute reader will have already rooted out one of the core assumptions upon which this model is based: contextualism. We would propose that to fully understand the fascinating interplay between these factors, one must understand the historical context upon which they occur (or occurred). Once the tableau of historical context is understood, the connectivity between philosophy, theory, and practice becomes easily discernible.

The remaining chapters of this book will begin to introduce the reader to a process of critical thinking through historical context. Historical periods particularly pertinent to HRD will be examined through the lens of the seminal events of the period and its impact on current HRD theory and practice. The philosophical influences of the time will also be examined, including a consideration for the assumptions of the philosophies considered. In so doing, the reader will begin to note the consistent interplay across history of philosophy, theory, and practice.

It would be inaccurate for the reader to consider this text to be an exhaustive examination of HRD history. In fact, it most certainly is not. The reader may be shocked and appalled that, in their opinion, critical

elements of HRD history have been apparently ignored or glossed over. Perhaps the reader considers that the authors have placed apparent undue significance on other periods or events in history. All such critique is welcome and encouraged with the following understanding: the purpose of this historical review is not to represent all seminal events in HRD or to represent them equally. Instead, the purpose of this work is to instill a critical thinking skill set in the reader using HRD's history as the context in which to do so. In that vein, the seminal events selected for discussion are simply representative of the central thesis: the influence of philosophies (and philosophical assumptions) on the theory and practice of HRD throughout its history and in its current practice. As such, the review of historical events contained herein is *representative*, not *comprehensive*.

The history of HRD is the history of humankind (Swanson & Holton, 2001). As long as humans have been teaching one another, working for one another, mastering a trade, or collectively building a society the threads of HRD can be seen. In fact, Durant and Durant (1968) defined human development as the social evolution of mankind. HRD as a discipline is in an enviable position to reflect upon and critically consider its history, and, in so doing, consider the whole of human historical experience. All the more impressive is that such a careful consideration will not only build in the discipline a greater understanding of its historical and philosophical roots but a greater capacity at transparency in its current theory and practice. Delivering such transparency, vital to the core beliefs of the discipline, further builds legitimacy in theory and practice. As the following chapters will illustrate, it is an exciting and worthwhile endeavor.

2

Early Human History

This is the first chapter in which we will begin to delve into human history to better understand the growth and development of HRD as a discipline, as well as its current practice. Historical research, like any research epistemology, carries with it strengths and weaknesses. Johnson and Christensen (2008) define historical research as an "attempt to arrive at an account of what has happened in the past by systematically examining past events or combinations of events" (p. 435). Isaac and Michael (1995) give clear cause for when historical research is appropriate. Its purpose is: "To reconstruct the past systematically and objectively by collecting, evaluating, verifying, and synthesizing evidence to establish facts and reach defensible conclusions, often in relation to particular hypotheses" (p. 48). The dirty words in Isaac and Michael's statement are *systematically* and *objectively*.

Like one man's trash is another man's treasure, one researcher's definition of systematic and objective may differ from another's. Later in the quote, however, Isaac and Michael (1995) set the aim of historical research: to reach defensible conclusions. The phrase denotes the unavoidable presence of bias, a known weakness of the historical methodology (Leming, 2014). Defensible conclusions are quite different from unassailable conclusions. Despite the fact that bias is inherent in the methodology, the end result should be defensible. The theories put forth must be cogent and defensible; however, they ascribe to nothing more than a representation of the perspective of the researchers.

Busha and Harter (1980) list six steps in conducting historical research:

1. Identification of the historical problem or uncovering the need for specific historical knowledge
2. Gathering as much data as possible

3. Development of a hypothesis to explain relationships between data
4. Evaluation of the veracity and authenticity of source material
5. Analysis of most pertinent data and drawing of conclusions; and
6. Placement of conclusions into narrative.

Isaac and Michael (1995) detailed extremely similar steps that can be summarized as follows: (1) define the problem, (2) state the research objective, (3) collect the data, (4) evaluate the data, and (5) report the findings. Wiersma (2000) proposes four key steps: (1) identification of the problem, including formulation of a hypothesis and research questions; (2) collection and evaluation of the data; (3) synthesis of information; and (4) interpretation and drawing conclusions. This work is consistent with the perspectives listed, including Wiersma's guidance in the formulation of a hypothesis as well as in guiding research questions. This book explores and explains the interplay between philosophy, theory, and practice in HRD by understanding the historical context in which the discipline evolved. We shall spend the majority of our efforts hypothesizing models (such as Gosney's model of modern era theory and practice generation in HRD) to make sense of the data, draw conclusions, and place those conclusions within the larger narrative of HRD theory and practice.

A Word on Historical Context

Perhaps the greatest challenge to historical research is that, consistent with Gosney's Model of Modern Era Theory and Practice Generation in HRD, any such research is conducted within the historical context of the time in which it is conducted. A fictional example illustrates the point. Perhaps during your younger years you had a best friend; an individual who you would consider as close as or closer than family. You may be able to recount several examples of this friend stopping by just to say hello and check in, seeking opportunities to support you and those you cared about. Indeed, all of your historical examples would support the central thesis that this was a true and genuine friend if ever one existed.

Now, say, you later discovered that at the height of your friendship, your dear compatriot made several unabashed attempts to woo your significant other. As you consider your history together you may very well evaluate the behaviors of your former friend as not the altruistic, benign actions of a loyal associate. Instead, you may reconsider the actions in the context of a sniveling weasel attempting to make a play on your love interest! All of the random stop-ins, all of the seemingly genuine interest in the lives of your loved ones, all of these behaviors become interpreted in

light of your current understanding of the individual who was previously categorized as a friend.

This is the nature of historical context. In truth, your evaluation of your friend's behavior prior to discovering his/her ulterior motives was appropriate given the context. However, once the context shifted, so too did your evaluation of the recalled behaviors. All historical research encounters the same root challenge: it is conducted within the *current* historical context. There will be a bias to place undue importance on events that align most clearly with our current understanding of the world (or, in this case, HRD theory and practice) just as there would be a bias to draw out and reinterpret past behaviors of your friend that fit his/her new context as a dirty cheat.

Does such a condition immediately invalidate historical research? Certainly not. However, we must proceed with an understanding that our evaluation of the seminal events of HRD is conducted from the perspective of our current understanding of and context around HRD theory and practice. As we consider these early periods of human civilization, this challenge of historical context becomes more apparent. There may well be (and likely are) countless events that wield significant influence on current HRD practice. Like a camouflaged animal lurking in the brush does not fail to exist simply because we cannot see it, so also, seminal events do not fail to be seminal simply because they do not stand out against the field of current historical context.

Historical research also suffers from the biases of the research. What the authors consider to be seminal events may, in the readers mind, be trivial. There may be other events that in your own review of history stand out as critical. Still other events may emerge as hugely important as our collective context shifts. Such discrepancies do not render moot the hypothesis but instead further validate a central thesis: we understand current practice against a field of historical context. That field of historical context is constantly shifting given our collective and individual position in it. As stated in chapter 1, the historical examples given are illustrative in nature. The reader is encouraged to consider such history from their own perspective and highlight events that emerge as points of influence given their own context.

Early Development of Human Resources: Out from the Stone Age

So we begin our review of early human history by casting our gaze as far back as possible. Human civilization can be traced as far back as 5 million BC as the earliest toolmakers begat the era of agriculture and animal

domestication (Alagaraja & Dooley, 2003). Rudgley (1999) traces the genesis of several modern-day elements of society to early Stone Age (5000 BCE) cultures including formalized language and writing, science, medicine and surgery, art, and industry (such as mining). The technology of toolmaking continued to advance as the mastery of pottery kilns led to the introduction of copper-working and other metallurgy at the dawn of the Bronze Age (2000 BCE) (Anthony, 2009).

This emergence of metallurgy as a distinctive feature of society also introduced the role of the smith; one who crafts metal objects. Such a role in early society was profoundly significant – carrying with it an almost mystical quality. As Kristiansen and Larsson (2005) note:

> The historical and magic-religious significance of the smith is his connection with the rise of new types of weapons and warriors, and consequently new types of power. The sword and lance define the beginning of the Bronze Age proper and a new age of heroic warfare… Here the smith occupies a central role by manufacturing the aristocratic new weapons, whose power relies upon a combination of technical skills and secret magic. As master of these transformative skills… [t]he rise of the smith and of metallurgy is accompanied by a new specialized knowledge of firing and pyrotechnics. (p. 53)

The significant amount of knowledge necessary to master the art and science of early metallurgy was substantial and, likely, not easily acquired. Thus, smiths became one of the first, highly specialized members in society. Such specialization helps explain the mystery and wonder surrounding those who practiced it—to the common individual of the time, the transformation of hunks of earth into tools and weapons must have assuredly seemed miraculous. Metallurgic knowledge afforded those who possessed it societal status (Helms, 2013), and thus was likely highly desirable.

The development and dissemination of such highly specialized knowledge could not be managed in a traditional paternal/maternal education model. Previously, knowledge was primarily passed down through one's family; what your family knew of how to navigate and manipulate the world would be passed down to you through informal instruction. Alagaraja and Dooley (2003) note the development of apprenticeship as the emerging instruction methodology during this period. *Apprenticeship*, in its broadest definition, is a relationship between a learner and a master whereby the learner is provided opportunity to become expert in a particular knowledge set, skill, or trade. As the complexity of knowledge required in a specific arena such as metallurgy expanded, complex mechanisms to manage that knowledge increasingly appeared.

The Great Pyramid: Leveraging Knowledge and Human Resource

One such example of emerging complex mechanisms to manage the application of complex knowledge occurred with the construction of the Great Pyramid at Giza (approximately 3000 BCE). Never before in human history had such large groups of individuals been organized, taught, supervised, and managed—by one estimate a total labor expenditure of 131,200 man-years (Smith, 1999) and perhaps up to 22 years real time. A project of such immensity and with such a large workforce would, by default, require a greater level of human resource organization and management. Construction of the Great Pyramid also required a broad skill-set: stonemasons, transportation teams, joiners, woodworkers, rope makers, water carriers, surveyors, supervisors, quarrymen, and food purveyors (Edwards, 2003). Clearly, the immensity of the project and the broad skill-set required for its successful completion was unparalleled.

Lehner (1999) postulates an innovative notion of the emergence of Egyptian social structure as a result of the immensity of the pyramid project. He suggests a symbiotic relationship between the project and Egyptian culture as a whole. In essence, as the Egyptians built the pyramid, the pyramid built Egyptian culture. It should come as no surprise, then, that cultural adaptation to the management of a variedly skilled workforce would emerge. Smith (1999) describes the division of labor, including payment conditions, for the construction of the Great Pyramid thusly:

> We learned that workers were paid in grain—to make bread and beer—as well as in oil, other foods, and cloth. Payments differed, of course, depending on the level of skill and rank. Ancient records indicate that a superintendent earned 8 jugs of beer and 16 loaves of bread daily…There was a barter economy in place then, so a worker with one set of skills might perform work for another, who would return the favor by making something for him. There was also some moonlighting going on as workers used their free time to work for third parties. Thus the total labor costs for construction of the pyramid were approximately 111 million jugs of beer and 126 million loaves of bread over the 10-year span of the project. (p. 42)

As the Egyptian society adapted to better manage the skill sets needed to meet its needs vis-à-vis the Great Pyramid construction project, the means whereby an individual's skill was evaluated and rewarded emerged. In this instance, relative value of a skill was assessed and compensation made dependent upon that value. If you possessed a skill that was deemed particularly valuable in the construction of the Great Pyramid then good news for you! You would be rewarded for such skill with more bread and beer.

Implicit in this notion of skill set valuation is skill set evaluation and development. Apprenticeship as the means of skill development was the method of imparting the wide-ranging knowledge necessary to complete such a massive work (Stocks, 2013). Some mechanism must also have been in place to assess the skill of the individual and mete out the appropriate level of compensation for work based upon relative value. In other words, someone had to teach the individual worker how to perform their work, and some system assessed the capacity and quality of the individual (Hellman & Liu, 2013) and compensated accordingly. In this period of early history, the first indicators of a formal practice of human resource development can be seen.

Lex Talionis: An Eye for an Eye

The central thesis of this book, as has been mentioned, is the notion that philosophy (and philosophical assumptions) influence and guide the development of HRD theory and practice—both historically and in our modern era. If the thesis is to be supported, our review of Egyptian models of human resource development should link to a prevalent and informing philosophy. In a theme that will continue throughout our exploration of human history, predominant philosophy is best expressed through a review of the codified law of the time.

The idea that law is an outcropping of philosophy is well established. When considered, this is not a strange notion. Pound (1922) identifies several sources for law, including law being "conceived as a philosophically discovered set of principles which express the nature of things, to which, therefore, man ought to conform his conduct" (p. 13). Given this construction of the concept of law, we should feel some level of confidence in exploring the early laws of the time of the Great Pyramid. Doing so allows us to extrapolate the philosophical influence of the era. Understanding this, then, leads to an understanding of its link to the theory and practice of that time.

Egyptian law at the time of construction of the Great Pyramid shared common ancestry with the Babylonians and, later, influenced Judaic law. All three borrow from the earlier-established legal traditions of the Sumero-Akkadians (Gardner, 1951). Babylonian law is best represented by Hammurabi's Code: a detailed record of laws and regulations governing commerce and fair business dealings (Cook, 1903). Key themes and concepts of Babylonian law, coupled with the influence of their Egyptian captivity, can be seen in the Mosaic Law (Parisi, 2001).

One of the key elements of commonality between Babylonian, Egyptian, and Judaic law is the concept of *lex talionis*: a philosophy of

proportionality (Fish, 2008). The fundamental assumption of lex talionis is that individuals have inherent, substantive, calculable worth—and that remuneration or punishment is meted out in conjunction with that worth (Held, 2010). This concept was well-expressed in Exodus 21:23–25 (KJV), "Eye for eye, tooth for tooth, hand for hand, foot for foot, burning for burning, wound for wound, stripe for stripe." However this common understanding of lex talionis fails to fully illustrate the notion.

While it is true that punishment for breaches of conduct is the most well-known aspect of lex talionis, its direct impact on managing and developing the skill sets of the laborers of Giza resides at the other end of the spectrum. The philosophy of proportionality undergirds the means by which workers were compensated and thus motivated to acquire and leverage complex knowledge and skill. Recall Smith's (1999) description of payment for Pyramid workers based upon the ascribed value of the skill set of the worker. Such a model of management is, at its core, fundamentally influenced by the philosophy of proportionality. Individual workers have a calculable worth. The work that those workers perform must be compensated in accordance with that worth. To compensate the worker more, or less, would disrupt the notion of proportionality.

As discussed in chapter 1, philosophies carry with them assumptions—hidden or otherwise. The philosophy of lex talionis is no exception. Imbedded in the philosophy are critical assumptions regarding human beings: their action and choice. The reader, after reading the previous description and upon some consideration, could likely identify several such assumptions. In keeping with our chapter 1 construct, we will simply attempt to evaluate lex talionis as a philosophy of either necessity or possibility. In that regard, the philosophy is most appropriately categorized as one of necessity.

Lex Talionis assumes an innate determinism. Its retributive quality is consistent with mechanistic and linear temporal assumptions. Take, for example, lex talionis philosophy as applied to punishment. Wrongs are met with automatic, unwavering, and consistent punishment—mechanistic and deterministic assumptions all. The point is made clearer when considering an alternative means of exacting punishment—utilitarianism, which would consider the consequences of punishment. Lex Talionis is not interested in such future consequences. Primacy is given to past events, not future consequences (Wood, 1938).

And so we see our first evidence of the influence of philosophy on the theory and practice of HRD in the context of a seminal, historical event. The construction of the Great Pyramid of Giza was a multidecade project that pushed society forward in terms of how talent was managed, developed, and compensated. The means by which that management,

development, and compensation was delivered was directly influenced by the predominant philosophy of the time: lex talionis or proportionality. But how has this seminal event, the construction of the Great Pyramid, and the methods of talent management that sprang from said event influenced current HRD theory and practice? The chapter concludes with such a consideration.

Impact on Today's HRD

Gazing as far back as 2000 BCE it is somewhat difficult to clearly identify specific HRD theory or practice, at least not explicitly. One can only infer theory and practice based upon the end results as well as what is learned from archeological and other scholastic exploration. In other words, there have been no discoveries of ancient Egyptian hieroglyphs depicting training managers conducting classes on stonecutting. What we do have is evidence, based upon the compensation and skill-development methodologies of the time, that some theory and practice of what would eventually become HRD was indeed occurring. Indeed, as we scan such ancient history we "see through a glass, darkly" (1 Corr. 13:12, KJV). And yet, certain familiar shapes appear that we can recognize in our current theory and practice of HRD.

One element of clarity comes from Hellman and Liu (2013) who suggest a necessary presence of early quality-management practice in the construction of the Great Pyramid. Organizations today that undertake a strategy of quality find several elements of HRD practice in which to differentiate, including "performance appraisal that is mostly short-term and results-oriented . . . relatively egalitarian treatment of employees . . . [and] extensive and continuous training" (Schuler & Jackson, 1987, p. 213). These three elements—results oriented appraisal, egalitarian treatment, and emphasis on training—resonate with what we have learned about the methodology of talent management in ancient Egypt.

The responsibility for the development and implementation of accountability and rewards systems (including salary structures) is part of the HRD umbrella (McLean 2006). So, too, is expertise in improving human performance and measuring and evaluating (Davis, Naughton, & Rothwell, 2004). Hughes's (2012) People as Technology model is another example of assessing individual value and constructing processes that best leverage and maintain that value—a strong example of a philosophy of proportionality. Early attempts at the development of rewards systems and driving human performance can be seen in the methods and systems of the Great Pyramid architects.

Conclusion

Any historical review comes ready-made with inherent strengths, weaknesses, and biases. Instead of invalidating the work, a better understanding of those biases can be leveraged to create a clearer perspective and salient narrative when interpreting historical data. The specific events selected for review in this book are illustrative of a particular perspective; the historical data supports a thesis but does not suggest that other, equally valid perspectives may exist.

In first considering the early elements of human history the growth and development of highly complex skill sets such as metallurgy had significant impact on the culture, as well as on the process of teaching. While earlier generations relied upon a patriarchal/matriarchal means of knowledge dissemination, advances in technology necessitated the development of alternative means of instruction such as the apprentice system, which provided greater opportunities for quality control as well as greater consistency in assigning relative value to specific skill sets.

The construction of the Great Pyramid of Giza is a seminal historical event that demonstrates the convergence of theory, practice, and philosophy in an historical context. The methodology of managing and rewarding talent is consistent with modern-day HRD theory of quality management and talent valuation. The philosophy of lex talionis, or proportionality, demonstrated clear influence on why talent was managed in a particular way as well as how best to manage talent. Lex Talionis as a philosophy carries assumptions—particularly that of determinism and mechanism. It also places primacy on historical rather than future events. Given these assumptions, it is most appropriate to place lex talionis in the category of assumptions of necessity.

3

The Hellenic Period

As we progress in our journey through human history, the reader, as an astute observer, will begin to notice a rather important phenomenon: the interrelatedness of historic events. Similar to the concept of scaffolding in learning (Wood, Bruner, & Ross, 1976), history regularly builds upon itself. New benchmarks are achieved as individuals walk paths others have trod, and then dare to go further. While we make particular note of the moments of distinction, in truth, these seminal moments are actually a culmination of perhaps decades or centuries of slow and steady progress. So, then, it should come as no surprise that as we begin to more closely examine these seminal events in the history of HRD, we begin to notice that they share DNA with other events in the past. Much like when you look through old photo albums of relatives long since forgotten—even though you may not know the exact genealogical connection—there is no denying the family resemblance.

Chapter 3 introduces us to a moment in human history that, as will be shown in later chapters, continues to wield significant influence on our very understanding of life and the purposes ascribed to it. The Hellenic Period, or the era of Ancient Greece, is very much the paterfamilias of Western thought (MacNeill, 1963). The philosophies, practices, and concepts germinated in Ancient Greece continue to influence our political (Finley, 1973), economic (Ekelund & Hebert, 2014), and social systems (Blundell, 1995) to this day. The influence of Ancient Greek thought and practice is, frankly, ubiquitous. As Gomperz (1956) wrote, "Even those who have no acquaintance with the doctrines and writings of the great masters of antiquity, and who have not even heard the names of Plato and Aristotle, are, nevertheless, under the spell of their authority" (p. 528).

Of course one of the main aims of this exercise in examining the history of HRD is to avoid unwittingly falling under such spells of authority. In exploring the philosophies and underlying assumptions of the Hellenic

Period, we avoid the scenario in which we are unknowingly spellbound by the influence of those philosophies today (while, at the same time, acknowledging the utility and insight of said philosophies). In this chapter we will first spend time better understanding the contribution of two of Ancient Greece's most prominent thinkers: Aristotle and Plato.

In evaluating the philosophies of Aristotle and Plato, we will explore some of their foundational ideas, particularly the ideas that most directly impact today's HRD. While one could consider the coming forth of the philosophies of Plato and Aristotle as the notable seminal events from the Hellenic Period, we will also review a more specific occurrence—the introduction of Plato's Academy—and draw correlations between that institution and today's discipline of training and development. Finally, the chapter concludes with a more in-depth discussion of the assumptions upon which the philosophies of both Plato and Aristotle rest, and how those assumptions continue to influence today's HRD theory and practice.

Plato and Aristotle: Influences

Ancient Greece was a place and time uniquely suited for the generation and support of philosophers. This is evidenced by the prodigious amount of philosophical thought that emanated from this epoch, as well as the continued influence of that thought in our modern era (Russell, 2013). It is no stretch to say that the cradle of Western civilization rests in Ancient Greece. Extensive texts could and have been written detailing the many influential philosophers who left their mark on history, and no doubt there exist countless others whose ideas are lost to the mists of time. Such being the case, it is clear that reviewing only two philosophers (and lightly reviewing, at that) only begins to scratch the surface of the impact of the Hellenic Period on HRD. Other philosophers and philosophies from this period, as well as a more robust examination of the philosophies of the two individuals examined, would no doubt yield more and greater insights into the theory and practice of historic and current HRD. The reader is encouraged to take up such an exploration.

We will first turn our attention to Plato. Any discussion of Plato begins first with a brief description of his mentor—Socrates. Very little is actually known about Socrates other than that he was a philosopher and teacher in Greece, of moderate means, that he was a rather disruptive force, and that he was tried and put to death at about the age of 70 (Russell, 2013). Socrates was also written about voluminously by Plato, suggesting a probable teacher-student relationship between the two. Plato recounts the trial of Socrates and, in so doing, illustrates a key component of Socrates's

philosophy that would eventually influence his own—that of the examined life (Plato, 1966). In *Apology*, Socrates addresses his accusers and states:

> If you think that by killing men you can prevent someone from censuring your evil lives, you are mistaken; that is not a way of escape which is either possible or honorable; the easiest and noblest way is not to be disabling others, but to be improving yourselves. (Plato, 2011, p. 57)

Note in Socrates's words a plain indicator of his belief that self-improvement is humankind's path to nobility. In fact, Socrates here suggests that to fail to undertake the responsibility of self-examination and self-improvement could indeed leave one condemned. While Platonic philosophy differed from that of his mentor Socrates, this ethos of self-improvement was and is a consistent core concept that the two share.

Plato was also strongly influenced by the notable practices of one particular band of Greeks—the Spartans (Russell, 2013). Sparta, the capital of Laconia, was a warrior state just southwest of Athens on the Greek Peloponnesus. The myth of Spartan civilization is one that endures, and the realities of its practices remain stark. For the Spartan, the sole purpose of existence was to be made—through breeding, training, and social mores—into a warrior fit to defend the state. All of its laws and social customs bent to this one end. The very conceptualization of law, its frame, and purpose conformed to this same goal. The first century historian Plutarch describes the correlation between law and education by explaining the philosophy of Lycurgus, Sparta's founder:

> If the most important and binding principles which conduce to the prosperity and virtue of a city were implanted in the habits and training of its citizens, they would remain unchanged and secure, having a stronger bond than compulsion in the fixed purposes imparted to the young by education, which performs the office of a law-giver for every one of them… Indeed, he assigned the function of law-making wholly and entirely to education. (Plutarch, 1989).

In Sparta, then, the aim of law was to promote education—in this case a very particular type of education designed to create a society of soldiers.

While Plato admired the means of the Spartan approach, the ends he pursued with his philosophy were far different. For Plato, and indeed for all Greeks, the aim of civilization was the embrace of a life well-lived. Mackenzie (1907) wrote:

> They played the game of life, as Goethe said, more beautifully than any others, and their centre of interest seemed always to lie in life. They were

> not called upon by the conditions of their lives, like most modern peoples, to put forth great efforts for the subjugation of natural forces; they did not get captured by an imperial mission, like that of the Romans; nor was it their tendency, like most Oriental peoples, to seek peace in contemplation of the absolute and infinite. To be men, and to play the game of life beautifully, seemed rather their highest ambition. (p. 19)

There is but little question, when considering the specific philosophies espoused by Plato, about the influence of this higher level ethos described so well by Mackenzie. Such an ethos—the life well-lived (and well-examined)—gives a definitive raison d'être that grounds the Platonic and later Aristotelian philosophy and provides us valuable insight into understanding the ontological aim of those philosophies.

While the Greek ideal was clearly influential for Plato, so too were the philosophies of his contemporaries and immediate predecessors. Russell (2013) notes other philosophical influencers of Plato, including Pythagoras, Parmenides, and Heraclitus:

> From Pythagoras… Plato derived the Orphic elements in his philosophy: the religious trend, the belief in immortality, the other-worldliness, the priestly tone… his respect for mathematics, and his intermingling of intellect and mysticism.
>
> From Parmenides he derived the belief that reality is eternal and timeless, and that, on logical grounds, all change must be illusory.
>
> From Heraclitus he derived the negative doctrine that there is nothing sensible in the world. This, combined with the doctrine of Parmenides, led to the conclusion that knowledge is not to be derived from the senses, but only by intellect. (p. 104–105)

From these philosophical influencers, Plato would formulate his own philosophy—a philosophy whose influence continues to be felt in our modern-day interpretation of the world in which we live and the aims of work, education, and the realization of human possibility.

The Philosophies of Plato

Unlike his mentor Socrates, Plato was an individual of means (Russell, 2013). He came from aristocracy. He was a noted author and orator, and, in fact, there is some reason to believe that his primary skill—or at least his primary focus—was in oration. Regardless, as Reale (1990) notes, "the philosophy of Plato has been the most 'influential,' to use a modern term, and the most stimulating for well over a millennium" (p. 7). His

philosophy can be broken down into five distinct categories: his notion of utopia, his theory of ideas (or forms), his philosophy of immortality, his cosmogony, and his thoughts on knowledge and perception. While all five areas of philosophic investigation are interesting and worthwhile, three relate most keenly to our modern-day understanding and practice of HRD: Plato's theory of ideas, philosophy of knowledge and perception, and idea of utopia.

Theoryo fI deas

Plato's theory of ideas (or forms) is the first element of Plato's philosophy that we will consider. This concept, originating with Plato, is both logical and metaphysical (Russell, 2013) and is best explained by example. First, an exploration of the logical arm of Plato's theory. There exist in the world countless living organisms that could be described as "trees." When one looks upon one of these organisms, one would undoubtedly say "that's a tree." But what do we mean by "tree"? Clearly there is a difference between the universal concept of tree and individual, specific trees that we may encounter. When we use the word tree we do not suggest that all trees are the same—or that we are indeed referring to the same tree each time. And yet, there is a universal "tree-ness" that is inferred when we utilize the term. That universality is a key tenet in Plato's theory of ideas: certain forms are indeed universal in their application.

In addition to this concept of universality, the idea of tree-ness is atemporal. The meaning of the word tree does not spring into being with the arrival of any particular seedling nor does it disappear with the demise of an individual tree. The concept of tree exists independent of time or space—it is simultaneously applied to all trees and independent of any one tree that has existed or ever will exist. A tree exists in its own eternal, universal sphere. These two concepts, the universality and atemporal nature of ideas or forms, is the logical arm of the theory of ideas.

The metaphysical element of the theory of ideas stems from Plato's suggested foundation of these universal forms—God. In Plato's philosophy the word tree refers to the ideal conceptualization of a tree—*the* tree. This ideal conceptualization, created by God, is the true reality of the tree. All other trees that we may observe in our conceptualization of existence are simply imperfect partakers of the divinely conceived notion of *the* tree. All other trees are not, in fact, real, only perceived. In Plato's philosophy there is only one tree and it exists as an idea or form created by God.

Herein lays the crux of Plato's philosophy. We may observe that which we consider to be beautiful or good; however, it is only an observation.

To Plato, what we observe is not reality but instead tied to the *one* object that truly is beautiful or good (Kraut, 2015). Few are capable of truly comprehending the universal form or idea; those that can are obliged to teach others to live in ways that are consistent with these universal forms. Living thus *is* living a life of virtue, a life well-played (Mackenzie, 1907).

Knowledgea ndP erception

Plato's theory of ideas informs the next considered element of his philosophy: his approach to knowledge and perception. Plato was one of the first philosophers to clearly distinguish between the concepts of *episteme* (or know-what) and *techne* (or know-how). For Plato, episteme is the ability to know the real as it is (Parry, 2014), an idea that ties directly with Plato's theory of ideas. Episteme, then, is "Maker's Knowledge," the knowledge of the true form (e.g., "the tree") that exists as God created it (Floridi, 2011).

Plato differentiates between episteme, Maker's Knowledge, and techne, User's Knowledge. While no less important, and intrinsically linked together, User's Knowledge is nevertheless substantively different from Maker's Knowledge. While our previously considered example of a Platonic form was that of a tree, another object may help better illustrate this differentiation. Consider an engineer who designs a chair. Her knowledge is that of the maker; she possesses the pure knowledge of the chair as an idea, as a form. Her role, however, is not to construct the chair. That is the role of the carpenter who interprets the maker's design to produce a tangible object. This knowledge of how to manifest a form as a temporal reality is techne, User's Knowledge.

The two concepts, episteme and techne, are closely connected yet distinct. And, in separating the two, Plato infers a hierarchy, with episteme taking prime position (Floridi, 2011). In essence, Plato suggests that the higher knowledge is that of the form or idea. Inasmuch as techne aids the individual in better understanding the form, it is worthwhile knowledge. Indeed Plato considered the obtaining and sharing of episteme the primary role of the philosopher. This was famously expressed by Plato in his simile of the cave as explained by Russell (2013):

> Those who are destitute of philosophy may be compared to prisoners in a cave, who are only able to look in one direction because they are bound, and who have a fire behind them and a wall in front. Between them and the wall there is nothing; all that they see are shadows of themselves, and of objects behind them, cast on the walls by the light of the fire. Inevitably they regard these shadows as real, and have no notion of the objects to which they are due. At last some man succeeds in escaping from the cave

> to the light of the sun; for the first time he sees real things, and becomes aware that he had hitherto been deceived by shadows. If he is the sort of philosopher who is fit to become a guardian, he will feel it his duty to those who were formerly his fellow-prisoners to go down again into the cave, instruct them as to the truth, and show them the way up. (p. 125)

This highly instructional example gives three important insights into Plato's position on the role of knowledge. First is the moral responsibility of those individuals who possess knowledge to share said knowledge. Second, the example also infers the primacy of episteme as higher knowledge. In the cave example, the most valuable knowledge is that of the actual form—not the shadows that the form casts. The valuable knowledge is of things as they really are. Finally, the cave example places the perception of the individual as the means whereby knowledge is obtained.

Russell (2013) encapsulates the interconnectedness of knowledge and perception, per Plato, with three straightforward theses: "1. Knowledge is perception; 2. Man is the measure of all things; and 3. Everything is in a state of flux" (p. 153). These three theses state the crux of Plato's philosophy of knowledge and perception. Knowledge is not simply obtained by perception, but perception makes up knowledge.

Return again to the theory of ideas. Let us say that you are walking one day and you happen upon a tree. You say to yourself, "I see a tree." In this example are two key components—you as the perceptor and the tree representing your judgment of its adherence to the universal ideal of a tree using the vehicle of the language available to you to thus describe. You may likely happen upon another tree, different from but similar to the first. You say to yourself, "I see another tree." In that moment, you have increased the data set—these two things that you have observed fit into the Platonic form of a tree. When you see a bush, you may likely say to yourself "Now, that's a bush." You have again furthered knowledge via an observation of difference (versus sameness). In all these instances, you are the yardstick by which tree-ness is being measured and, in turn, by which knowledge of the Platonic ideal of tree is obtained. Indeed, in this example, knowledge is perception and you are the crux of that perception.

There is, however, a third aspect that must be considered—that everything is in a state of flux. Here we see the influence of Heraclitus on Plato's philosophy. In fact, Plato famously quotes Heraclitus as saying that "You could not step in the same river twice" (Sedley, 2003, p. 104). Here, Plato suggests a perhaps cruel relativity that is inherent in the idea of the individual's role as nexus of experience. If human beings are the yardstick by which the idea of tree-ness is known, what happens when the meaning of the word tree changes over time? What if we change in relation to trees?

Plato suggests that this change is constant and, therefore, all knowledge is relative to the moment it is acquired.

Despite this somewhat negative thesis, Plato himself maintains a reasonably positive outlook as to the aims and objectives of the obtaining of knowledge—both episteme and techne. The obtaining of both is in service to the life well-lived. For Plato, "human well-being…is the highest aim of moral thought and conduct, and the virtues…are the requisite skills and dispositions needed to attain it" (Frede, 2013). In a sense, then, one could consider episteme the knowledge of what human well-being entails and techne, the means of obtaining that well-being. The final philosophy of Plato that we shall consider describes his ideal environment for both these types of knowledge to thrive: Plato's utopia.

Utopia

In considering Plato's ideal political scenario, it is worthwhile to recall his admiration of the methodology of Sparta (Mumford, 1965). In Sparta, Plato saw an ideally sized city-state where all education, policy, and practice bent to one single aim. However, unlike the Spartan ambition of war-readiness and defense, Plato sought to define a place where, as Mackenzie (1907) noted previously, as many of its citizens as possible could live life well. The idea of a utopian society was not unique to Plato. His vision of the ideal utopian society was far reaching.

To understand how Plato framed the ideal utopian society, it is worthwhile to first understand the political principles he fundamentally rejected. It is worth noting that Plato was no fan of democracy, and readily pointed out its shortcomings (Schofield, 2006). Instead, Plato favored the division of individuals into one of three classes: a ruling oligarchy termed "the guardians," a group of military protectors, and the common class (Russell, 2013). The factor distinguishing guardians from other citizens was mentioned previously in the simile of the cave; guardians are those who have left the metaphorical cave and can see the source of the shadows cast upon the walls. In Plato's utopia, the guardians are the only individuals who ever leave the metaphorical cave—the rest remain dependent upon the guardians and their obligation to educate (Bobonich & Meadows, 2013).

Education of the citizenry, in Plato's utopia, is the primary responsibility of the guardian. Given what we have learned about Plato's theory of ideas and perspective on knowledge and perception, this should not come as a surprise. From the theory of ideas, Plato suggests that an understanding of "true" forms is a rare endowment, and that those who

obtain it are obligated to teach others (Kraut, 2015). From his philosophy of knowledge and perception, Plato suggests that this knowledge of the true form, episteme, is distinct yet connected to the knowledge of that form in action, techne. He also posits in his philosophy of knowledge and perception that all knowledge is obtained through the observation of the individual. In his philosophy of utopia, then, we find more fully realized the role of the guardian: to teach others virtue, for well-educated men shall develop into good men (Bobonich & Meadows, 2013).

While Plato suggests topics of education that are important for the development of the virtuous individual, the specific curricula are secondary to the educational experience as a whole (just as techne is secondary to episteme.) As stated by Mackenzie (1907):

> All the studies that he [Plato] describes, whether literary, scientific, artistic or physical, are regarded from the double standpoint of furnishing a preparation for the practical life of the good citizen, on the one hand, and, on the other hand, of leading up to a true philosophical insight. So long as he can show that they subserve these purposes, Plato does not care in the least what the subject-matter is of which he avails himself, whether it be science, poetry, music, diet, gymnastic exercise, military drill, or whatever else it may be… What he sought to do was to show how the material that he thus found at hand could be made subservient to his special purpose. (p. 135)

Mackenzie makes clear the point that, for Plato, training was a means to a philosophical end. Inasmuch as training helped achieve the realization of individual potential, it was deemed consistent with the Greek ideal.

Plato suggests why such an approach to education is necessary in describing the soul of man. He contends that education's primary purpose is to provide humans the ability to properly balance pleasure and pain, and to employ reason (in fact it could be said that these three components are the pillars of a virtuous life) (Bobonich & Meadows, 2013). He also suggests that the soul is a puppet created by the gods with three strings: two hard and iron, one soft and gold. The two iron strings represent the moderation of pleasure and pain, while the gold cord represents reason. Education's purpose is to properly train one in the manipulation of all three cords and, thus, to live a life of virtue.

The reader should note that we have herein only briefly and incompletely covered the full scale and scope of Plato's philosophy. Other elements of his philosophy no doubt influence the current theory and practice of HRD. Nevertheless the three topics covered in this chapter—Plato's theory of ideas, his philosophy of knowledge and perception, and

his conceptualization of utopia (and particularly the role of education in that utopia) are markedly influential in today's HRD. More will be said about the correlation between Platonic philosophy, its underlying assumptions, and the impact on modern HRD later in this chapter. First, however, we will spend some time reviewing the second major philosopher of Ancient Greece: Aristotle.

The Philosophies of Aristotle

Perhaps Plato's greatest student, Aristotle's influence as a philosopher extends throughout history and into the present day (Shields, 2014). Aristotle was born in Greece and educated by Plato in Athens. His career was predominantly that of a scholar, lecturer, and teacher—including three years as tutor to Alexander of Macedonia (later termed Alexander the Great) (Russell, 2013). While Aristotle's philosophy is clearly influenced by Plato, much of current philosophy and theory trace their roots back to the unique ideas of Aristotle. Mackenzie (1907) articulates well the difference between Aristotle and his predecessors:

> The doctrine of Aristotle differs from that of Socrates and Plato chiefly through the introduction of the idea of history or process. The end for Socrates seems merely to be something that he finds within his own consciousness. For Plato it is the secret of the universe, but a secret laid up, as it were apart—a treasure in heaven, which is only degraded by its presentation on earth. For Aristotle it is implicit in the life of the world. The world is thus conceived as unfolding its meaning, somewhat as a man works out his purpose. (p. 25–26)

As we will read in this and later chapters, Aristotle's notion of knowledge stemming from sensory experience gained over time is a philosophy with far-reaching impact in HRD and elsewhere (Slife & Williams, 1995).

Aristotle's philosophy, like Plato's, can be broken down into five main categories: metaphysics, ethics, politics, logic, and physics. Also similar to Plato, the root ethos for Aristotle is a striving for the good—for a life well-lived. Unlike, Plato, however, Aristotle holds that the core component of striving for the good is doing good things. As Shields (2014) notes:

> He says, not that happiness is a virtue, but that it is a virtuous *activity*. Living well consists in doing something, not just being in a certain state or condition. It consists in those lifelong activities that actualize the virtues of the rational part of the soul. (p. 59)

Aristotle's philosophy is one of doing, experiencing, testing. While each of the categories of Aristotle's philosophy is worthy of consideration, in relation to its impact on HRD we will consider Aristotle's metaphysics, logic, and physics.

Metaphysics

The philosophy of metaphysics was described by Aristotle as the "first philosophy" or foundational philosophy—in fact he did not even use the term metaphysics (Cohen, 2014). It is an explanation of some of the core concepts upon which he builds the rest of his philosophy. Metaphysics is the study of the nature of reality, and Aristotle's point of view was markedly different from Plato. His position on metaphysics can be found in the terms he *did* in fact use to describe the topic: "first science, whose subject matter is logically prior to that of every other . . . wisdom . . . the search . . . [and] theology, or the science which expounds the nature of God" (Collingwood, 1948, pp. 6–7). In essence, for Aristotle, the first science is the metaphysical science of understanding the nature of reality.

Aristotle postulated two main forces in the universe: that which is substance and that which is universal (Russell, 2013). Substances exist independent and apart, while universal elements do not exist apart from substances. This, not surprisingly, is best described by an example. Substances apply to things: dogs, cats, houses, caterpillars. Universal elements describe those things with substance: fuzzy, green, cuddly. The substance can exist independent of the universal—not all dogs are required to be cuddly. The universal, however, must exist codependent with substance. Fuzzy does not exist in and of itself.

Aristotle builds on the concept of substance by describing the conditions upon which change occurs. He contends that substance is made up of two components: matter and form. Matter, the indivisible element of the substance, does not change. Form, however, does experience change. For example, if the substance considered is a horse, its matter does not change. It remains a horse. Its form, however, may change. The horse may be wet or dry, hot or cold. Aristotle termed these combinations of matter and form hylomorphic compounds—ontologically distinct ways of being (Witt, 1989).

It is clear that in his metaphysics Aristotle is wrestling with the idea of materiality, attempting to rectify it with theology. Russell (2013) describes his management of the two thusly:

> Change consists in giving form to matter, but, where sensible [material] things are concerned, a substratum of matter always remains. Only

> God consists of form without matter. The world is continually evolving towards a greater degree of form, and thus becoming more progressively like God. But the process cannot be completed, because matter cannot be wholly eliminated… Plato was mathematical, Aristotle was biological; this accounts for the differences in their religions. (p. 168–169)

Russell hits upon the core element of Aristotle's metaphysics—the foundational root of materiality. In short, events happen independently of the individual and in an objective and absolute position in time. To account for this materiality, Aristotle proposed three key principles. First is the idea of empiricism, "the notion that knowledge is derived… from our experience of world events as they are organized separately from us". Second is the notion of contiguity, that "events vary in their contiguity to one another in time… [and that]… events that are more contiguous or near to one another in time and space are more likely to be associated". Finally is the idea of repetition—that "events which occur frequently across time are those likely to be learned" (Slife 1993, p. 111).

These three concepts—empiricism, contiguity, and repetition—give a set of rules to understanding the materiality Aristotle sought to encapsulate. In summary, all things (other than God) are material. Materiality infers both absolute space (matter must exist somewhere) and absolute linear time (matter must exist at some objective, indivisible moment), independent of us. Knowledge of the material is possible, however, through the epistemological principles of empiricism, contiguity, and repetition. The next element of Aristotle's philosophy—logic—provides a means whereby that material world could be systematically evaluated.

Logic

Perhaps no aspect of Aristotle's philosophy is more familiar to the casual reader than his contributions to the field of logic. In fact, so pronounced is his impact on the field that others have considered the subject matter closed for debate—most famously by Kant (1855) who stated "Since Aristotle… logic has not been able to advance a single step, and is thus to all appearance a closed and complete doctrine" (p. bviii). While we shall not attempt a full and robust evaluation of the various concepts of Aristotle's logic, what follows is a brief description of the core concept—the syllogism.

Aristotle's logic entirely rests on the idea of the syllogism (Smith, 2015). A syllogism consists of three parts: the major premise, the minor premise, and the conclusion (Russell, 2013). Consider the following as an example.

All HR professionals are handsome (the major premise). I am an HR professional (the minor premise). Therefore, I am handsome (the *obvious* conclusion). The idea of Aristotelian logic is likely so ingrained in our modern culture that the above example seems blatantly obvious (the method, not necessarily the content.) This self-evidence is tied in part to the syllogism's contribution to deductive reasoning and scientific investigation.

Deductive reasoning is the process of taking general statements and examining possibilities to reach a specific conclusion (Bradford, 2015). The tongue-in-cheek example in the paragraph above is both an example of a syllogism and the process of deductive reasoning. The major premise is the theory, and the minor premise, the testing of that theory in a particular scenario. Coupled with inductive reasoning, going from specific observations to general theories, deductive reasoning is the basis of the scientific method (Smith, 2015). It is firmly rooted in Aristotle's logic—primacy is given to that which is observable—and his metaphysics—primacy is given to the biological and governed by the principles of empiricism, contiguity, and repetition. What remains to be evaluated in Aristotle's philosophy is that of his physics, what is referred to as Aristotelian causality.

Physics

In attempting to understand the world around him, Aristotle posed a simple but profound question: "What is it that changes during events in the world and what is it that endures during such changes?"(Silverstein, 1990, p. 23). From this query came Aristotle's view of causality. He proposed four complementary points of view (or causalities) from which change was to be understood. Silverstein (1990) describes them thusly:

1. Material—The physical composition of a thing
2. Formal—The essential nature of a thing
3. Efficient—The source or agent of change
4. Final—The predictably normal way a substance functions after a change of a particular sort has occurred. (pp. 23–24)

A brief overview of each of these causes is warranted. Let us evaluate each of these four causes using the example of the book you now hold in your hand (presupposing, of course, that you indeed are holding a physical book.)

Material causation is the stuff the book is made of—in this case paper (perhaps some percentage recycled!) Material causation implies

reductionism, the notion that phenomena can best be explained by zooming in to the most basic, atomic element (Slife & Williams, 1995). To understand a thing from a material causal perspective requires its evaluation on the particle, even cellular, level. When one considers evaluating the cause of something at this level, Russell's (2013) assertion of Aristotle's biological religion becomes more pronounced.

Formal causation harkens back to Plato's theory of ideas or forms (Kraut, 2015), and links to Aristotle's metaphysics of matter and form. If the material cause is the matter of the thing, the formal cause is the essential form of the thing. In our example of the book, the formal cause is the form of the book. Unlike the material cause, which is reducible on the atomic level, formal cause requires an evaluation of the thing as a whole.

The efficient cause is the principle that produces the thing—in our case the book (Falcon, 2015). It would be tempting to interpret this as the *individual* who produces the thing—the book binder, the printer, etc. This is not what Aristotle meant by efficient cause. Instead, the efficient cause is the knowledge required to produce the book. It is this knowledge, not the individual who possesses the knowledge that is the most salient causal factor. Once again, one can see Plato's influence in considering his concepts of episteme and techne (Parry, 2014). Here, as with Plato, the knowledge of how something is takes primary position and exists independent of the knowledge of how-to. Once again, efficient causality is irreducible. If one only possesses some of the knowledge required to make a book, that does not mean that only part of that knowledge exists. The knowledge exists as a whole. Individuals may possess only part.

The fourth cause in Aristotelian causality is the final cause, sometimes termed teleology. It is the central tenet of Aristotle's philosophy of nature (Meyer, 1992). The idea was succinctly expressed by Aristotle in stating that "the whole is greater than the sum of its parts" (Aristotle, 1930). Otherwise stated, some phenomena (or perhaps all) are to be only fully understood when considered in context. And this context is best described as the ultimate goal or end of the object or thing—it exists *because*. For example, the book you hold in your hand may exist to make the authors money. The reader should be advised, however, that one does not become rich by writing textbooks. It may exist to gain the authors tenure. This seems more plausible. Or, the book's teleology may and is likely to impart very specific knowledge to its readers. It exists *because*.

Final causality is, like formal and efficient cause, irreducible. And, if one were to plot the four causes on a timeline, teleology is a future cause. While material cause "pushes" the change, teleology is a "pull." For Aristotle and from a teleological perspective, the book in your hand came to be because it was meant to fulfill its purpose of being read by you,

right now. Aristotle contends that any or all four causes may be brought to bear in answering the question of "why"? However, he gives explanatory priority to the final cause (Falcon, 2015). Thus teleology is the crux of Aristotle's natural philosophy—understanding why change occurs by first understanding the context and purpose in which the subject of change exists.

We have now reviewed the key philosophies of both Plato and Aristotle. From Plato we have learned his theory of ideas or forms. From the theory of ideas we entered a discussion around knowledge and perception—how one can know and who can know these platonic forms. This led us to the idea of Plato's utopia—the ideal setting where education is the core function of society. We then shifted our attention to the philosophies of Aristotle, beginning with his metaphysics. Contemplating his notions of matter and form led us to Aristotle's logic and the use of syllogisms as a means of scientific exploration. Finally, we reviewed his theory of change—Aristotelian causality. In evaluating the four causes, we learned of the primacy given to the final cause, or teleology. Now that we have reviewed these fundamental philosophies of Plato and Aristotle, we can turn our attention to one of the key manifestations of Hellenic philosophy in action: the establishment of Plato's Academy.

Plato's Academy: Formalizing the Role of Training and Development

Following his journey to Sicily in 388/387 BCE, Plato established what was to be known as Plato's Academy (Chroust, 1967). While ultimately dissimilar to what would be recognized as a modern university today, it was nevertheless a critical first step in the establishment of concepts of higher education (Power, 1964). Plato's Academy was a place where Plato could instruct talented youth in mathematics, art, music, and philosophy, much like his mentor Socrates had done in the gymnasia of Athens (Zeller, 1888). Plato's Academy became the location for the great minds of Athens, including Aristotle to learn, as alumni.

That Plato would seek to establish a formal institute of learning is not surprising given what we have learned of his philosophy, particularly regarding his utopian state. Plato considered it the responsibility and moral obligation of the guardians and philosophers to educate the citizenry in the ways and means of a virtuous life (Bobonich & Meadows, 2013). Creating a place where Plato could identify and tutor young guardians, who would then in turn go and lead the people, was a practical application of his theory of utopia. This made the academy, as Chroust (1967) notes, possibly the first organized school of political science. Students of the academy were then entrusted with the leadership of the citizenry.

The curriculum of the academy was also consistent with Plato's philosophy. Recall Mackenzie's (1907) previous quote regarding Plato and education. For Plato, instruction on any topic was useful inasmuch as it aided in the development of the individual. In the academy, the goal was not mastery of mathematics for mathematics sake. The goal was mastery of mathematics as an avenue for obtaining episteme. This ability to obtain true knowledge and lead others based upon that knowledge was the end goal of the academy.

A review of the linkage between the philosophies of Plato and Aristotle and its impact on modern-day HRD appears later in this chapter. For now, we will consider the consequences of Plato's Academy on HRD theory and practice. As a seminal event, the establishment of Plato's Academy was significant for two reasons. First, Plato's Academy was notable as a formally established means of training and developing a subset of its citizenry. Second, the target audience and ultimate objective of the academy most closely mirrors today's efforts in leadership development.

First, as mentioned, Plato's Academy was a formal institution established with the purpose and intent of education (the obtaining of knowledge), and not simply training (the passing along of a skill.) This vital differentiation gave birth to the concept of humanistic education in which education's aim is the contribution of human flourishing (Phillips & Siegel, 2013) and indeed many would regard Plato as one of the primary progenitors of humanism (Mackenzie, 1907). Barrie and Pace (1998) have written elegantly for the promotion and advantages of a humanistic approach to education in the arena of HRD. Spurgeon and Moore (1997) have demonstrated that humanistic education, among other philosophical approaches, has an established place in the educational philosophies of HRD. The establishment of Plato's Academy as the genesis of the humanistic education movement has had clear impact on current HRD theory and practice.

The second impact of Plato's Academy to HRD is no less significant. Consider once again the audience and aim of the academy—to train future leaders. Applying Plato's distinct philosophical points of view to modern-day leadership practice has occurred (Takala, 1998), and that should be no surprise. Modern-day theories of leadership focus upon the values and character of the leader (Northhouse, 2013), a theoretical approach that links back to Platonic ideals. The academy was a place for potentially great men to learn how to lead. The philosophy of great men (and women) leading from a place of personal virtue was first espoused by Plato and realized in his academy. We continue to see this philosophy of leadership today.

What of the academy's methodology? Recall that for Plato, the acquiring of techne was in subservience to the obtaining of episteme. The study

of specific topics at the academy was undertaken primarily to serve the purpose of building leaders. Plato's methodology struck a balance between learning and sensemaking that has been applied to management training methodology in current HRD (Schwandt, 2005). What we see, then, when closely considering the establishment of Plato's Academy is a clear connectivity to current HRD in its commitment to formalized training and development via a humanistic approach, and in its establishment of an ethics-based leadership. Clearly the philosophies of both Plato and Aristotle are far-reaching. As discussed in chapter 1, all philosophies carry assumptions—Plato's and Aristotle's are no different. An evaluation of those assumptions follows.

Philosophical Assumptions of Plato and Aristotle

In this text, we evaluate philosophy based on categories of assumption as defined by Slife and Williams (1995). In this rubric are two main categories: necessity and possibility. The reader is encouraged to refresh themselves as to the definitions of the categories, assumptions, and subassumptions that make up the evaluative rubric. The following section will contain an evaluation of the major philosophies of both Plato and Aristotle contained in this chapter as they relate to the categories of assumption previously defined. In so doing, the reader may determine that they disagree with the authors' categorizations. This is wholly acceptable! While we shall attempt to provide rationale for our categorizations, it is expected that the reader will bring his or her own perspective and evaluation to the process. Such a perspective is perfectly valid.

A quick review of table 3.1 will quickly demonstrate a theme in the evaluation of Plato's philosophy. In every instance, Plato's philosophies assume determinism. Each will be evaluated in kind, beginning with the theory of ideas. One may recall that in Plato's theory of ideas, all things that are observable are simply representations of the eternal form of the object; for example, the tree. Inherent in this philosophy is an underlying determinism. An object has no other choice but to be a tree—it is determined by its eternal form. Per Plato, humans are as much subject to the concept of the ideal form as is a tree—therefore we exist in accordance with a universal form.

Next for Plato is the concept of knowledge and perception. Linked as it is to the theory of ideas, the classification of knowledge and perception as a deterministic philosophy is likely self-evident. Recall that, per Plato, knowledge is broken down into two categories: episteme and techne. Episteme is knowledge of the universal form. While Plato's philosophy of

Table3 .1 Categories of philosophical assumption: Plato and Aristotle

Philosopher	*Philosophy*	*Category*	*Assumption*	*Subassumption*
Plato				
	Theory of ideas	Necessity	Determinism	
	Knowledge and perception	Necessity	Determinism	
	Utopia	Necessity	Determinism	
Aristotle				
	Metaphysics	Necessity	Determinism Reductionism	Materialism
	Logic	Necessity	Reductionism	Materialism
	Material cause	Necessity	Determinism Reductionism	Materialism
	Formal cause	Necessity	Determinism	
	Efficient cause	Necessity	Determinism	
	Final cause	Necessity/ Possibility	Determinism Reductionism Contextualism	Biological Reductionism

knowledge and perception is of a more epistemic nature (in other words, it is more concerned with the process by which knowledge is acquired), it is based upon a deterministic axiology—the theory of ideas. As such, it shares in the same deterministic assumptions.

Finally, we take a look at Plato's utopia. Once again Plato's philosophy of utopia falls within the category of determinism for two main reasons. First, and similarly to the philosophy of knowledge and perception, Plato's philosophy of utopia is largely epistemic. It is a description of process. It is based, however, on the same axiomatic principles found in Plato's theory of ideas. In addition, recall Plato's descriptor of the soul as a puppet created by the gods—hardwired as it were. Frankly, a more deterministic analogy could not be used than that of a puppet. In this instance, Plato makes the case for a deterministic categorization all on his own.

Aristotle's metaphysics can be classified as both deterministic and reductive. First let us account for reductivism. Aristotle proposes that everything is made up of matter, and that all matter is material. This particular type of reductivism is consistent with materiality—that everything that can be divided into its most basic, atomic element. Aristotle hinted at this concept in differing between matter and form, with matter being the eternal component.

Aristotle's metaphysics is also categorized as deterministic based upon the three principles outlined: empiricism, contiguity, and repetition. Empiricism's foundational axiom is that objective reality is observable

and quantifiable. The application of said principle seeks to explain the world in natural, measurable terms (as opposed to seeking to understand the world through individual, rational thought). Contiguity and repetition introduce another, highly deterministic element of philosophy: that of linear time. Slife (1993) has written extensively on the impact of linear time as an underlying deterministic assumption in the philosophy of Aristotle and others. This type of determinism—temporal reductionism—is a core assumption of Aristotelian metaphysics: for something to exist (material), it must occupy absolute space and be observable (viz.: empiricism), as well as occupy an absolute and indivisible moment in time (viz.: contiguity and repetition).

Aristotle's logic is also deterministic, specifically mechanistic. It is also, in and of itself, a methodology—one grounded in deterministic assumptions. And, as mentioned previously, the primary axiom of Aristotle's logic is that knowledge comes from perception and observation. It is, in fact, the very nature of "science"— understanding the world through that which is observable.

Finally, we come to Aristotle's four causes. The first cause, material cause, is self-evidently deterministic—specifically materialistic. Formal and efficient causes are more subtly deterministic. While some philosophers have categorized efficient causation as an expression of an assumption of linear time (equating it to a concept similar to Newtonian "force") (Slife, 1993), there is reason to believe that such was not the intent of Aristotle (Slife & Williams, 1995). Nevertheless, in both cases, the locus of change is external to the object. In the end, both causes are deterministic. Later interpretations of efficient causality also assume temporal reductionism.

Teleology is the partial outlier in our categorization of philosophical assumption. The case could be made that final causal explanations fit into the category of either necessity or possibility. The question is where the teleology is rooted within or external to the object or individual. Rychlak (1988) suggests three types of teleology. The first is deity teleology—acting for the sake of a supreme being. Next is natural teleology—acting for the sake of nature (e.g., evolution). Both of these examples of teleology are firmly deterministic. Finally, there is human teleology—humans act for the sake of their own desires. This type of teleology may or may not be deterministic depending on the theorist! For example, Rogerian humanism (Rogers, 1951) is rooted in both natural and human teleology and would best be defined as deterministic (Slife & Williams, 1995). Others, such as Rychlak (1988), would be classified as within the realm of possibility owing to their allowance of free will. Such issues will be sorted out to a greater degree in later chapters. Suffice it to say now that there is no easy categorization of teleology.

Greek Philosophy and Its Impact on Today's HRD

While the impact of Plato's Academy has already been discussed, we would be remiss in failing to note other countless aspects of HRD that have been and continue to be influenced by the works of Plato and Aristotle. Of course this does not comprise all of the elements of modern HRD that may trace their roots to the philosophies of Plato and Aristotle. Nevertheless, the list is representative of the immense impact these two giants of philosophy have had on the discipline.

First, and not insignificantly, Plato is considered by most to be the progenitor of humanism. Humanism, as defined by Slife and Williams (1995) is "the idea that every human being is unique. Part of that uniqueness is an innate potential that suggests, and holds out a goal for us, what we can become if we develop fully" (p. 33). Mackenzie (1907) articulates the connection between Plato and humanism thusly:

> It might mean that man's life furnishes us with a key which opens up to us the secrets of the universe more adequately than any other that can be used, but that it must, nevertheless, be constantly considered in relation to the other aspects of our experience. This I take to be the view of Plato. (p. 17)

Humanistic learning theory, as previously mentioned in this chapter, fits into the overall humanist philosophy and further emphasizes Plato's influence. Much more will be said regarding the development of humanism as a predominant philosophy in chapter 6. Suffice it to say for now that humanism, with its roots in Platonic philosophy, has, and continues to wield, sufficient influence in the theory and practice of today's HRD (Trehan & Rigg, 2004)— though that influence is not universally embraced (McGuire, Cross, & O'Donnell, 2005).

The concepts of episteme and techne also set in motion a schism in thought that continues to impact HRD today. Floridi (2011) argues that Plato's act of distinguishing between these two types of knowledge forms the genesis of the theory/practice debate that plagues a multitude of disciplines including HRD (Kuchinke, 2004). This notion is particularly resonant in HRD where the work of knowledge transfer is a core competency (Davis, Naughton, & Rothwell, 2004).

Aristotle's influence in HRD is equally profound particularly as it relates to learning. His primary thrust, that knowledge is perception, forms the foundation of constructivist learning theory (Hein, 1991). For example, Mazur (1994) defines learning as a "process of change that occurs as a result of an individual's experience" (p. 2). Marquardt (2002)

likewise defines individual learning as "The change of skills, insights, knowledge, attitudes, and values acquired by a person through self-study, technology-based instruction, and observation" (p. 246). Note in both definitions the influence of Aristotelian epistemology—the experience of the learner is at the root of learning. Contiguity and repetition are more implicit than explicit in both definitions; however, a reading of either Mazur or Marquardt finds ample evidence for both concepts.

Finally, Aristotelian causality influences a wide variety of HRD theory and practice. Material causality and an emphasis on natural observation to determine cause provided the springboard to the eventual development of the scientific method (Slife & Williams, 1995), a method of research and inquiry fully embraced by HRD (Reio, 2009). Likewise systems theory, as formulated by von Bertalanffy (1972), is built upon the construct of Aristotelian teleology. More will be said about the scientific method, systems theory, and their relation to HRD in chapters 5 and 7, respectively.

Conclusion

In summary, nearly all of Western philosophical traditions emanate from the period of Ancient Greece represented by Plato and Aristotle. The articulation of their various philosophies stands alone as seminal events in the history of HRD. The real-world application of Plato's philosophy in the establishment of the academy wields demonstrable influence in our current practice of training and leadership development. An understanding of their philosophies provides a bedrock foundation for properly interpreting much of the theory and practice of what would go on to become the discipline of HRD. An ability to then recognize the assumptions of those philosophies becomes all the more critical for the HRD scholar and practitioner.

4

400–1800 AD: The Middle Ages, Renaissance, and Enlightenment

As we move forward in our historical examination of seminal events in HRD, one fact should become more apparent: casting a net large enough to appropriately capture the various influential events is impossible. Therefore, no claims should be made, or expectations set, that the history contained herein is comprehensive in nature. However, as we progress down the timeline into the Middle Ages, Renaissance, and Enlightenment periods, truly interesting patterns begin to emerge more distinctly and the interplay between the predominant philosophy of the time and the theory and practice of what will go on to become HRD becomes more readily apparent.

This chapter covers three periods in human history: The Middle Ages, Renaissance, and Enlightenment. It should be noted here, that the review of these periods will be conducted from a Eurocentric perspective. While numerous profound advancements occurred in the Far East during the three periods considered, in general it is fair to say that the major influences on what would become the discipline of HRD stemmed from Western thought. While this text will not cover Eastern developments during this or later periods, the enterprising scholar may likely find a compelling application of this book's research methodology in evaluating the philosophy, theory, and practice of Eastern cultures throughout history.

We will begin our evaluation of the Middle Ages with a review of three fundamental philosophers of the time: St. Augustine, St. Thomas Aquinas, and William of Ockham. Following the pattern set in chapters 2 and 3, we will then examine two seminal events stemming from the Middle Ages that directly impact HRD today: the promulgation of the

Catholic Church and the establishment of the Magna Carta. We will conclude our review of the Middle Ages by connecting these seminal events with modern-day HRD practice.

Next we will review the Renaissance by following a similar process. We will first review a duo of influential philosophers of the time: Bruni and Vives. Next, we will take a look at a significant event—the expansion of exploration (including into the Americas) and the establishment of trade routes throughout much of the world—and evaluate its impact on HRD theory and practice today.

Lastly, we will explore the Enlightenment period and review several key philosophers of the time, including Descartes, Bacon, Hobbes, Locke, Newton, and Foucault. Two seminal events will be evaluated for their impact on HRD: the French and the American Revolution. Finally, we will conclude the chapter with a discussion of the impact of the philosophers and revolutions of the Enlightenment period on HRD And in doing so, lay the groundwork for the Industrial Revolution and the dawn of HRD as an established practice.

TheM iddleA ges:5 00–1500 AD

The Middle Ages conjures up images of knights and castles, plagues and peasants. One might picture a monk scribbling on a manuscript secured in a monastery cloister, or a king on horseback, or a boy pulling a sword from a stone. This period is often romanticized—particularly when less carefully considered. The line between myth and reality can seem blurred (e.g.,, the sword and the stone in the previous reference), and our understanding of the very real work of human management is limited.

The Middle Ages have also been termed "The Dark Ages," though that is not the term we have chosen in this work. Using the descriptor The Dark Ages implies a time of very little creative, scientific, or independent thought. Such an appraisal of the time was most likely made by those who immediately followed, a flaw of human nature, if you will. We tend to consider our current age far more enlightened and forward-thinking than the period immediately preceding it. Creative titling, like the term Dark Ages, helps to reinforce such a notion. A review of a handful of philosophers of the time may help dispel this idea.

Philosophers of the Middle Ages

Some would argue that the Middle Ages were indeed "dark" due to the dominance of religious thought at the expense of secular philosophy. In

this sense, there is some merit to the title. There is but little question that many of the predominant thinkers of the age were either Christian apologists or, at the very least, working from within the confines of the predominant religion. To suggest, however, that philosophical discourse had ceased would indeed be a myopic perspective. Instead, early Christian thinkers considered the philosophies of Plato, Aristotle, and others, melded these philosophies with their own theology, and created a unique Christian philosophy that continues to impact religious and secular thought (Gilson, 1955).

This section begins with a review of three of these theologians/philosophers: Saint Augustine, Saint Thomas Aquinas, and William of Ockham. Each will be shown to contribute significantly to the philosophy of the time—contributions that influenced events of the day that then became precursors to modern HRD.

Saint Augustine

Saint Augustine, born at the dawn of the Middle Ages in 354 AD in North Africa, was first a rhetorician and then religious leader (Spade, 2013), culminating in his position as bishop of North Africa (Mendelson, 2012). The full 75 years of his life were spent in North Africa, save for four formative years in Rome. There are two significant aspects of Augustine's philosophy in general. First is the sheer volume of work he produced—largely unequaled in the history of Western thought and the influence of that thought. Augustine has been called "*the* authority in Latin-speaking Christian theology and philosophy" (Stone, 2001, p. 253). Second is the significant shift in his philosophical position from largely Hellenic and optimistic of the human condition to a position of negativity and an assumption of the damned nature of most of humanity. In short, he changed his mind about a few things over the years he was active as a scholar, philosopher, and religious leader. In this sense, a study of Augustine is frustrating.

Augustine's initial view of human nature was extremely similar to and clearly influenced by Aristotle's concepts of materialism: matter and form. The reader may recall from chapter 3 a discussion of Aristotle's metaphysics and its inherent materialism as well as its core assumption of time as an absolute, linear construct (Slife, 1993). Aristotle postulated two main forces in the universe: that which is substance and that which is universal (Russell, 2013). For Aristotle, God is the only purely nonmaterial matter. Everything else, including the soul, is material. Augustine amended this view, suggesting that the soul was in fact without substance

and eternal—like God, while the body was material and placed in the same context of absolute space and absolute time as Aristotle suggested (Knuuttila, 2001).

This subtle difference between Augustine and Aristotle was a critical philosophical shift; Augustine suggested that there was a divine aspect to humans that allowed for growth, redemption, and revelation through the immortal soul's communion with an immortal God (Pasnau, 2015). He continues an explanation of this duality between the material and the divine by suggesting three separate levels of materiality: "things that exist, things that exist and live, and things that exist, live, and possess understanding" (Mendelson, 2012). An example of this categorization might be as follows. A rock is a thing that exists. It consists of matter and occurs in a particular, indivisible moment in time. A tree is a thing that exists and lives. It possesses the same material elements as the rock, and yet it is alive—possessing some form of immaterial soul. A tree, however, is neither capable of reasoning, nor communing with God. It cannot live a good or evil life because it is not capable of gaining knowledge from the ultimate source of good—God. Therein lies the difference between the tree (the thing that exists and lives) and a human being (the thing that exists, lives, and possesses understanding).

For Augustine, the purpose of gaining understanding is to better know how to experience the ultimate "good" through communion with God. Augustine describes this scenario:

> If . . . we are asked what view the city of God holds about the Ultimate Good and the Ultimate Evil, the reply will be that eternal life is the Supreme Good, and eternal death the Supreme Evil, and that to achieve the one and escape the other, we must live rightly . . . we do not yet see our good, and hence we have to seek it by believing; and it is not in our power to live rightly, unless while we believe and pray we receive help from him who has given us the faith . . .
>
> All man's use of temporal things is related to the enjoyment of eternal peace. Thus, if we were irrational animals, our only aim would be the adjustment of the parts of the body in due proportion, and the quieting of the appetites . . . But because there is in man a rational soul, he subordinates to the peace of the rational soul all that part of his nature which he shares with the beasts, so that he may engage in deliberate thought and act in accordance with this thought, so that he may thus exhibit that ordered agreement of cognition and action which we called the peace of the rational soul. (Augustine, 1989, p. 9)

In the prior quotation from Augustine, we see several core elements of his philosophy. First, that there is a distinct difference between the

material and immortal—and that as beings capable of rational thought we can glean from God knowledge that helps us live rightly.

Among the many of Augustine's lasting influences is this notion of human beings as cognitive creatures. Augustine suggests that, inherent in humanity, is the capability to reason and to choose. An appropriate analogy would be that of hardware and software. Materially, humans possess the hardware necessary for obtaining knowledge. It is however the divine soul, the software, that permits the individual access to "divine illumination," or knowledge from God (Pasnau, 2015). While much more will be said in later chapters regarding the influence of both cognitive psychology and humanism on HRD theory and practice, both find their philosophical footing in Augustine's philosophy (Huitt, 2009). Suffice it to say, Augustine's philosophy has been and continues to be profoundly influential. Another medieval philosopher, influenced by Augustine and influential in his own right, was Saint Thomas Aquinas.

Saint Thomas Aquinas

Saint Thomas Aquinas, born in Italy in 1225, was a true philosopher/scholar/theologian. He began his theological studies at age five, matriculating to both the University of Naples and the University of Paris (McInerny & O'Callaghan, 2015). Like Augustine, Aquinas was undoubtedly influenced by Aristotle (Wippel, 2012). Medieval philosophers resonated with Aristotle's proposal of a material body and immaterial soul, and used the notion as a springboard for an explanation of their philosophy. In fact, for Aquinas, philosophy and theology were virtually identical (Davies & Stump, 2012).

This is a particularly profound suggestion. For Aquinas, there was no debate as to the veracity of his theology; philosophy was seen as subservient to theology (Gracia, 2002). While embracing some Greek methodology for reasoning, and even vocabulary, the philosophy of Aquinas did hold several specific differences to that of Aristotle and other Hellenic thinkers (Moody, 1958). Philosophy, as a concept, was anathema to the leading thinkers of the time. Instead, the tools of philosophy were used to defend and grow the faith.

Perhaps the most significant example of this difference is in the Hellenic view of the role of the citizen when compared to the medieval view. Puhalo (2010) states that "the Greek *polis* [city] and *paideia* [culture or education] were the antithesis of the Christian *polis* (church) and *paideia* (Scriptures)" (p. 4). While the Greeks held that the city served the individual, with education as the vehicle for that individual's

enlightenment, the thinkers of the Middle Ages held that the individual served the church and that salvation (instead of enlightenment) was the role of the *paideia*.

For Aristotle, there was no more "godlike" entity than the state. For Aquinas, the state served the important purpose of tending to the temporal welfare of its citizens. Responsibility for the immaterial, the soul, however rested with the church (Finnis, 2014). Aquinas explains the difference between temporal rule and divine rule:

> If the end of man were to be found in any perfection existing in man himself, the final object of government in a community would lie in the acquisition of such perfection and in its preservation once acquired. So that if such an end, whether of an individual or of a community, were life and bodily health, doctors would govern. If, on the other hand, it were abundance of riches, the government of the community could safely be left in the hands of the economist. If it were knowledge of truth, the kind, whose task it is to guide the community, would have the duties of a professor. But the object for which a community is gathered together is to live a virtuous life… Only a divine rule, then, and not human government, can lead us to this end. Such government belongs only to that King who is both man, and also God: that is to Jesus Christ, our Lord, Who, making men to be sons of God has led them to the glory of heaven. (Aquinas, 1989, p. 12)

Consistent with Aristotle and Augustine, Aquinas suggests that there is a material and immaterial. Unlike Aristotle, however, Aquinas suggests that the salvation of man is not the province of the state but of the church. This philosophy, as we shall see, positions the church with enormous influence. This chapter will consider one final medieval philosopher of influence: William of Ockham.

William of Ockham

Like his predecessors Augustine and Aquinas, William of Ockham was a theologian and philosopher. Born in England, ca. 1285, he was Oxford-educated and a member of the Franciscan order (Noone, 2002). And, like Augustine and Aquinas, the launching point for much of his philosophy was Hellenic thinkers such as Plato and Aristotle (Maurer, 1999). The original postulation of Plato that knowledge is perception (Russell, 2013) was expanded upon by later philosophers into a philosophy of cognition, a concept that was further refined by William of Ockham.

Previous philosophers had suggested that knowledge of a thing (its *species*) was transmitted by the thing itself to those capable of understanding the thing (Stump, 1999). This may strike some as an odd concept, so some description is in order. Say, for example, you see a bowl of strawberries sitting on a table. Per the species theory of cognition, the bowl of strawberries would transmit to you, through some medium such as air, an immaterial version of itself—its species. And you, as a being capable of reasoning, would receive this ethereal transmission and thus gain understanding of its "bowl of strawberry-ness." Knowledge is formed as you receive other such transmissions from other bowls of strawberries, until eventually you have a robust understanding of the essence of a bowl of strawberries. Ockham rejected this notion entirely (Spade & Panaccio, 2011).

He replaced this species idea of cognition with a theory of his own: intuitive and abstract cognition (Spade & Panaccio, 2011). Ockham suggested that intuitive cognition is perception—when you see an actual, existent object, your mind naturally makes judgments about that object in relation to other, similar objects you have already seen. Ockham suggests that these perceptions are always accurate unless God intervenes to cause a false perception (Karger, 1999). Abstract cognition, however, is something more akin to memory or intuition. It is not caused by a tangible object per se, and, unlike intuitive cognition, is subject to false perceptions (Spade & Panaccio, 2011).

Thus, what Ockham is suggesting is a fairly profound way of knowing—through direct physical observation of an object (Slife & Williams, 1995). This is, in fact, another step forward in Aristotelian empiricism—the idea that knowledge is obtained through direct sensory experience of the world. Ockham's most lasting philosophical contribution, however, was in putting forth an elegant, reductivist philosophy of parsimony: Ockham's Razor (Spade & Panaccio, 2011), generally explained as the following: "when there are several explanations for an event, the best one is the one that makes the fewest unsupportable assumptions" (Slife & Williams, 1995, p. 127):

> Ockham's Razor provided an simple ontology for understanding how we come to know. For him, there is no such a thing as a nature considered absolutely; there are only universal concepts in the mind and individual things outside the mind… The existence of universal concepts in the mind can be explained in terms of the natural capacity of the mind to form a general concept based on the particular experience of individuals. (Gracia, 2002, p. 9).

From Gracia's explanation we can begin to see the foundations of cognitive psychology—a branch of psychology that suggests mental processing as a core component of behavior (Staats, 2003). More will be said in later chapters regarding cognitive psychology's influence on current HRD theory and practice. It is sufficient to note, for now, the direct influence of Ockham's Razor on later concepts of cognitive psychology (Myung & Pitt, 1997).

Ockham's Razor provided an eloquent way to express the notion of reductionism. Reductionist philosophy and Ockham's Razor has found application in a variety of different avenues: materialist reductionism (explanations of reality based upon the smallest evaluative element), mechanistic reductionism (explanations of reality based upon the operation of a mechanism, be it God or physical law), temporal reductionism (explanations of current reality as a mere summation of previous events), and even genetic or evolutionary reductionism (explanations of reality based upon the actions of genes) (Slife & Williams, 1995).

The Middle Ages and HRD: Seminal Events and Current Practice

The following section reviews a handful of seminal events from the Middle Ages and their impact on current HRD theory and practice. In reviewing these events the reader will notice the reemergence of a distinct pattern from previous chapters—the influence of the period's predominant philosophies on events as they unfold. The section will begin with a look at the growth of the Catholic Church in the Middle Ages, particularly on the means by which the church managed its growth. Next is a review of the creation of the Magna Carta, including the influence of its development on current HRD theory and practice.

Growth of the Church

During the Middle Ages, the Christian Church was the dominant force in virtually all aspects of life (Swanson & Holton, 2001). The church as an institution was, in and of itself, a model of organizational design. The Catholic Church in the Middle Ages was the central component of the community, dictating commerce, social status, politics, and military action (Chevedden, 2013). The church's influence extended into how society managed economy, science, and even the ways and means of reckoning time and date (Feldhay, 2006). Indeed, the Catholic Church is the oldest continuous institution of Western civilization (Ekelund & Hebert, 2010).

The promulgation of the Catholic Church in the Middle Ages is perhaps the greatest example of replicable organization design and human

resource development in the history of Western civilization, with its reach and scope dwarfing even the Roman Empire it replaced. Its means of replication most closely resembled the franchise model of today, wherein two interested parties (in this case the church in Rome and regional political leaders) sought mutual economic benefit (Terkun, 2010). Ekelund, Hébert, and Tollison (1989) propose a model for the growth for the medieval church in which industrial organization is a key component. Building upon the Ekelund, Hébert, and Tollison model, Davidson (1995) confirms the notion via historical review of the church as a franchise.

A key component of successful franchise growth is the training and development of the franchisee at all levels (Justice & Chan, 1991). Consistency in execution and delivery becomes a key strategy in both geographic expansion and vertical integration (Castrogiovanni & Kidwell, 2010). Rothenberg (1967) identifies several key elements to a successful franchise, with the training of technical and commercial knowledge being paramount.

Training and development became a key component in the Catholic Church as franchisor to "standardize and replicate a successful model in a different location" (Castrogiovanni & Kidwell, 2010, p. 229)—the stated purpose of training and development in the franchise model. This focus on training as a means of growing the church as an organization could be seen in its selection of pastors (Caspers, 2003) as well as in their continued education and development (Weiler, 2003). The means whereby this training and education occurred is also consistent with today's HRD practice. For example, Gonzalez (2006) notes the use of mentorship as a key component of clerical training during this time period—a methodology that continues to be leveraged in today's HRD (Ghosh, 2013; Hegstad, 1999; Hezlett & Gibson, 2005). Scientific management training methodology is also considered the key to successful knowledge management and dissemination in the franchise business model (Cappelli & Hamori, 2008). While a more detailed analysis of scientific management is given in later chapters, it is worth noting its first tentative expression as a modality during this period in history.

There is little question that the informing philosophies of the time influenced this dramatic expansion of the church. While the Greeks held that the city served the individual, with education as the vehicle for that individual's enlightenment, the thinkers of the Middle Ages held that the individual served the church and that salvation (instead of enlightenment) was the role of the *paideia*. While secular knowledge was obtainable through observation, divine knowledge was the sole providence of the church—and that divine knowledge was given prime position. Quoting again from Aquinas:

> The ministry of this [heavenly] kingdom is entrusted not to the rules of this earth but to priests, so that temporal affairs may remain distinct from those spiritual; and, in particular, it is delegated to the High Priest, the successor of Peter and Vicar of Christ, the Roman Pontiff; to whom all kings in Christendom would be subject, as to the Lord Jesus Christ Himself. For those who are concerned with the subordinate ends of life must be subject to him who is concerned with the supreme end and be directed by his command . . . (1989, p. 12)

Here, Aquinas unequivocally states that the subordinate ends of life are subject to those concerned with the supreme ends. The priest is the individual on a local level that has been given responsibility and authority for managing these spiritual affairs, as a mouthpiece of the Pope. Is it any wonder, then, that a franchise model was so readily adopted by the church wherein priests could be systematically trained and assigned to specific churches in communities throughout the world to consistently further the work of salvation?

Creation of the Magna Carta

Another prime example of a historically significant event that was intertwined with the philosophy of the day was the establishment of the Magna Carta (or Great Charter). The Magna Carta was the first attempt at a legal summation of human rights, designed specifically to control the "accelerating state of despotism" (Linebaugh, 2008, p. 22) found during the Middle Ages. It is, essentially, a legal document outlining the various rights—and limitation of rights—of those subject to the English monarchy. Written in 1215, the original document was, in fact, only valid for a period of three months. However, after revision, it became part of English law—certain elements remaining active well into the twentieth century (Holt, 1992).

The Magna Carta was an extension of the philosophy of the time—such as was postulated by Augustine and Aquinas (O'Sullivan, 1950)—in that it extended its rights under the auspices of religious authority. Quoting from the charter,

> Know that we are, at the prompting of God and for the health of our soul and the souls of our ancestors and successors, for the glory of the holy Church and the improvement of our realm, freely and out of our good will have given and granted the archbishops, bishops, abbots, priors, earls, barons and all of our realm these liberties written below to hold in our realm of England in perpetuity. (Magna Carta translation).

Note in the extract from the Magna Carta the implicit link between the rights granted and the will of God through the church. Compare this with Augustine's descriptor of the earthly city and its aims:

> So also the earthly city, whose life is not based on faith, aims at an earthly peace, and it limits the harmonious agreement of citizens concerning the giving and obeying of orders to the establishment of a kind of compromise between human wills about the things relevant to mortal life. (Augustine, 1989, p. 10)

Aquinas, as well, gives specific description of the link between earthly and heavenly government:

> Just as the divine control is exercised over all created bodies and over all spiritual powers, so does the control of reason extend over the members of the body and the other faculties of the soul: so, in a certain sense, reason is to man what God is to the universe… A king, then, should realize that he has assumed the duty of being to his kingdom what the soul is to the body and what God is to the universe… Thus the final aim of social life will be, not merely to lie in virtue, but rather through virtuous life to attain to the enjoyment of God… We believe… that it is the supreme power in temporal affairs which is the business of a king. Now government is of a higher order according to the importance of the ends it serves. For it is always the one who has the final ordering of affairs who directs those who carry out what pertains to the attainment of the final aim: just as the sailor who must navigate the ship advises the shipwright as to the type of ship which will suit his purpose. (1989, p. 12)

There are a few key points to note from the previous quotes. First, Augustine makes clear that the role of the state is evident—to ensure individual human rights through the balancing of independent human wills. Second, Aquinas infers that this role of the state is similar, but not equal to, the role of God—for God oversees eternal affairs and the king oversees temporal affairs. And third, as Aquinas notes, the role of the state is still crucial. Aquinas compares the role of the secular government to that of the shipwright—advising as to the type of vessel necessary to successfully reach the desired destination. For Aquinas and Augustine, human rights were divinely bequeathed, yet secularly governed (Nickel, 2014). Nevertheless, the protection of these human rights was essential for the full realization of human potential. The Magna Carta, then, stands as a preeminent example of humanistic philosophy codified into law (Kurtz & Wilson, 1973).

Later chapters will delve more fully into the impact of humanism on HRD. For now, let us simply consider the impact of codifying humanistic

philosophy as governing and guiding principles. The AHRD issued a statement of ethical standards in 1999, in which general principles were articulated, among them:

> HRD professionals accord appropriate respect for the fundamental rights, dignity, and worth of all people. They respect the rights of individuals to privacy, confidentiality, self-determination, and autonomy…HRD professionals are aware of their professional responsibilities to the community, the society, in which they work and live, and the planet…They apply and make public their knowledge of learning and performance in order to contribute to human welfare. (pp. 2–3)

Likewise, the Association for Talent Development (ATD) cites as the first two elements of their code of ethics the objective to "strive to…recognize the rights and dignities of each individual [and] develop human potential" (n.d.). To the reader, these dual notions of guarding human rights and promoting human welfare may seem self-evident. In fact, they are not; rather, they trace their philosophical lineage back to the Magna Carta and the philosophers whose work it inspired.

Middle Ages: A Summary

Far from being a period of darkness and unoriginal thought, we have seen how the Middle Ages brought forth considerable, significant philosophies. Three of the great thinkers of the time, Augustine, Aquinas, and Ockham, delivered philosophical constructs that directly impacted the age in which they lived, as well as our current perspectives today. Their writings on the separation of the state and the church, emerging humanistic philosophy, and empirical inquiry continue to impact HRD theory and practice. The promulgation of the church and the establishment of the Magna Carta are but two examples of those philosophies in practice. With our evaluation of the Middle Ages concluded, we now turn our attention to the philosophies and events of the Renaissance.

TheR enaissance:1 500–1700 AD

The word renaissance means "rebirth." It implies a fundamental, even spiritual, pivot from one way of life to another. The difference between the old state and new is radical, jarring. Such was the case during the period known as the Renaissance. Ground zero for the Renaissance was Italy; thus, many of the leading philosophers and seminal historical

events originate from there. Nevertheless, the principles of the Italian Renaissance soon permeated all of Europe—even extending to a newly discovered land named after Italian explorer Amerigo Vespucci.

The Renaissance as a movement represented a sea change in a variety of different arenas: math and science, politics, art, architecture, commerce, music, and philosophy included (Najemy, 2004). The cause for this significant transformation is varied. However, one of the leading catalysts was the development of the "city-state" in Italy. Emerging from centuries of tyrannical rule, the Italy of the Renaissance was a collection of cities ruled as independent governmental entities. Najemy (2004) describes the mind-set of the time thusly:

> This was a culture that idealized cities, citizens, and the norms of civility that emerged from assumptions about cities. In this respect it was unlike any European culture since antiquity. The "civilizing process" was under way in and through Italy's cities long before it was translated to Europe's courts. Praise of cities as the incubators of superior civility and the locus in which citizens could fulfill their intellectual and ethical potential pervaded Italian culture. (p. 5)

This emphasis on the city as an ideal location from which to realize one's potential should sound extremely familiar to those paying attention in chapter 3 of this text. The period's emphasis on humanism, and the role of the city in achieving individual actualization, is a notion lifted directly from Aristotle—a key contributor to the philosophy of the Renaissance (Copenhaver, 1992). However, the return to Greece was not limited solely to philosophy. In art and architecture, politics and music, an embracing of Greek classicism was a hallmark of the Renaissance (Baron, 1966). The following sections will consider two philosophical positions emanating from the Renaissance—civic humanism and humanistic education. We will then consider the impact of the expansion of exploration and trade in light of these philosophies, and the impact those events have in today's HRD.

Philosophy of the Renaissance

As mentioned previously, the primary ethos of the Renaissance was a return to classical Greek schools of thought. This classicism manifested itself in two main forms. First was an emphasis on the city as a vehicle for individual actualization. As you may recall from chapter 3, the Greeks aimed for a life "beautifully played" (Mackenzie, 1907, p. 19), in which the individual was able to maximize his/her capacity to experience the

good—virtue. From that concept sprung philosophies of politics and education. Two philosophers, Bruni and Vives, expanded upon these notions of political and educational philosophy during the Renaissance.

Bruni and Civic Humanism

Leonardo Bruni was an Italian historian, statesman, and former secretary to four popes (Burke, 1908). His translation of many of the classic works of Greek philosophy into Latin spurred the return to classicism that spurred the Renaissance period. He was also a leading thinker in forwarding the concept that was to be known as civic humanism (Moulakis, 2011). Civic humanism draws significantly from the concepts of state and humanism put forth by Aristotle and Plato in that the role of the state was to assist the individual in realizing the good and experiencing virtue. It also squarely placed responsibility and authority on those given the opportunity to lead and to create the environment where such a realization was possible.

Bruni promoted and further developed this idea of the role of the state with one key addition. Unlike more Stoic views that eschewed material wealth as anathema to the possessing of virtue, Bruni considered material wealth essential (Baron, 1988). Nevertheless, he maintained that those who are so blessed with material goods were obligated to use those goods to help others achieve the same virtue. This is, however, a landmark moment in philosophical thought as it began to tie together the notion of individual wealth and public good, thereby creating a more positive appraisal of capitalism and the seeking of wealth (Connell, 2000).

Vives and Humanistic Education

Unlike the other philosophers considered in this section, Juan Luis Vives was born in Spain in 1493, educated in Paris, and a long-time resident of Bruges in Belgium and Oxford in England (Norena, 1970). His position on education was widely influential in furthering the ideas of humanism during the Renaissance period. Vives valued "Maker's Knowledge," or the knowledge one obtains from creating an object (Casini, 2012). This is a different conception than that proposed by Plato and as discussed in chapter 3 (Floridi, 2011). Vives considered the ephemeral knowledge of objects known only to God as outside of the grasp of humans, and as such not worth considering. Instead, he placed primacy on that which can be sensed and, further still, that which the mind can reason. This notion of human reason as the source of knowledge, and an emphasis on the knowledge of now and not of the eternal, places him directly in the

camp of humanistic education. Humanistic education is a point of view that places premier emphasis upon a liberal, practical education aimed at elevating the capacity of the individual to achieve their full potential (Graves, 1913).

Vives's particular addition to the school of humanistic education is his emphasis on history as the crucial topic by which to base any educational pursuit (Casini, 2012). He (1913) himself states, "I know not how otherwise history could be proved to appear more excellent than all studies, since it is the one study which either gives birth to, or nourishes, develops, cultivates all arts" (p. 234). For Vives, knowledge is obtained in an iterative nature with the past building our understanding of the present. Such a philosophy is inherently reductionist in nature—in this case, temporally.

The combination of these two philosophies—civic humanism and humanistic education—combined in Italy to create an ideal setting in which individuals were provided the means and opportunity to pursue a liberal education. The aim of this education was practical—the theoretical was eschewed in favor of the practical. For example, one would not study mathematics simply for the sake of studying. Humanism would most assuredly not advocate a "hard science" of empiricism—placing greater emphasis on rational thought than observation (Blair & Grafton, 1992). The humanist would study mathematics as it applied to architecture, or surveying. For, consistent with Vives's philosophy, Maker's Knowledge was the key to a virtuous life. And Maker's Knowledge is obtained in making. Therefore, the flourishing of art, architecture, music, trade, and civic involvement were no accident. They were quite literally the by-products of the predominant philosophy of the time.

A Seminal Event of the Renaissance and HRD: Expansion of Trade and Exploration

Apart from the impressive, lasting architectural and artistic contributions one immediately associates with the Renaissance, one of the hallmark elements of the period is the dramatic expansion of global trade, and exploration that sprung from the period. Beginning with Marco Polo's journeying forth from Italy to China and other locations in the Far East (Polo, 1908), the Renaissance period was a time of expanding global borders. The primary cause for this increase in exploration was tied to economics; an expansion of trade routes meant a financial boon to the sponsoring government or institution (Goldthwaite, 2009). Modern economists trace the beginning of the global trade boom to Columbus and his trade-inspired journey to the Americas (O'Rourke & Williamson, 2002).

It is not difficult to see the dual philosophical influence of civic humanism and humanistic education in this expanding emphasis on trade and exploration. Civic humanism gave legitimacy to seeking material gain, particularly when that material gain could be used for reinvestment in the state. Humanistic education, with its emphasis on practical, liberal education provided the abundant technical skill necessary to fuel the expansion.

HRD of today has been influenced greatly by this expansion of trade and exploration that germinated during the Renaissance. While more will be said in later chapters regarding the influence of humanism on HRD, there is ample evidence to suggest that humanistic education is a philosophy that continues to bear influence in the discipline (Sambrook, 2004). Members of the AHRD, in attempting to define HRD, stated that "the purpose of HRD is to enhance learning, human potential, and high performance in work-related systems" (Bates, Hatcher, Holton, & Chalofsky, 2001, p. 205). Enhancing human potential is a decidedly humanistic approach to HRD and education. Swanson (1995) has suggested viewing HRD as a "major business process" (p. 207) with a clear linkage between its work and the success of the organization. This position could be interpreted as a form of civic humanism, in this case, the state being replaced with the corporation, and the processes of HRD as catalyst.

In summation, the Renaissance was the time of full expression of the humanist philosophy. While this philosophy was clearly demonstrated in the well-known art, architecture, and literature of the period it also found its way into Renaissance politics, economics, and education. It is the humanistic influence in these arenas, spurred by philosophers such as Bruni and Vives that links to the HRD practices of today. Humanism however would find its counterpoint in the Enlightenment period that followed—that we will consider next.

TheE nlightenment:1 650–1790 AD

The Enlightenment, also termed the Age of Enlightenment or the Age of Reason, demonstrated a clear pendulum-swing from the humanistic Renaissance that immediately preceded it. And once again, a quirk of human nature is demonstrated in the naming of the era, for of course implied in the name Enlightenment is an inference of darkness in the era it followed. If the Enlightenment were the Age of Reason, then, by default, there was very little reason in previous ages. The wise reader would do well to note this foible of human nature to castigate previous eras as utter foolishness compared to the incomparable wisdom of the age to which one belongs.

Nevertheless, the Age of Enlightenment was unquestionably profound in its revolutionary contribution to Western thought, politics, and science (Bristow, 2011). The philosophy of the Enlightenment sought to sweep away two relics of the medieval and Renaissance ages: the tyranny of tradition (particularly religious dogma) and the subjectivity of humanism. This was done through the introduction of philosophies that formalized empiricism as both a methodology and worldview, revised the view of the individual, and introduced an epistemology of empiricism through a reevaluation of physics. Numerous philosophers contributed to the thinking that represented the Age of Enlightenment. In the following section, we will review some of the philosophies of Descartes, Bacon, Hobbes, Locke, and Newton.

EnlightenmentP hilosophy

Bristow (2011) breaks down Enlightenment philosophy into one of three categories: philosophy concerned with reality (science and metaphysics), philosophy concerned with the individual (politics, ethics, and religion), and philosophy concerned with aesthetics. In the following section we will consider philosophers whose work contributed to the first two categories: philosophy of reality and philosophy of the individual. In so doing, it is important to note that a full examination of the various contributors to Enlightenment philosophy is simply more than can be reasonably accomplished in a chapter section, or even a chapter. What the reader will find is a representative selection of philosophical thought, with direct ties to the historically significant events of the period as well as its impact on today's HRD.

Descartes and Bacon: Formalizing the Scientific Method

The first, and possibly most significant, contribution of the Enlightenment (to philosophy certainly and Western civilization prohibitively) is the establishment of the scientific method. While some may consider the scientific method to be the domain of the scientist, it is indeed the domain of the philosopher (Slife & Williams, 1995). There is no "pure" scientific method, however there are core principles, based largely upon the philosophies of the Enlightenment thinkers, that have been consistently adopted in both hard and soft sciences.

Slife and Williams (1995) enumerate these four principles. First, knowledge comes from observation in conjunction with rationality. Second, these observations occur under objective conditions. Third, scientific observation is conducted under controlled conditions. Fourth,

scientists predict what will occur and validate or disconfirm their predictions based upon the results of their objective, controlled conditions. These four elements make up the core concepts of the scientific method. Other foundational principles such as repeatability and the public nature of scientific inquiry are also often considered part of the method.

As mentioned, the first principle of the scientific method holds that observation is paramount—that which is observable is true. However, the scientific method also holds that data, by itself, means nothing. Some level of rational consideration must be made to interpret the data in a systematic and logical way. This notion of leveraging rational thought in understanding the material world is at the heart of the philosophy of René Descartes (Hatfield, 2015).

Descartes, a French philosopher, forwarded the notion of rationalism as a means of understanding the material world. However, unlike the undisciplined rationalism of previous eras, Descartes put forth a skeptical methodology in which most all suppositions are presumed false. The burden of proof, as it were, rests on the inquirer to demonstrate unequivocally the truth of a supposition. Once that proof has been obtained, other suppositions can be made based upon the truthfulness of the original (Newman, 2014).

While Descartes brought forth two crucial elements of what would go on to become the scientific method—rationalism as means to an empirical end and skepticism as preferred theory-building epistemology—Sir Francis Bacon should rightly be credited with putting forth a coherent system of the sciences (Klein, 2012). Bacon was foremost in rejecting the mysticism and irrational rationality of previous eras, derailing the false worship of what he termed "idols": false notions of authority, habit, and language (Slife & Williams, 1995). Human nature's tendency to fixate on such false idols, claimed Bacon, prevented the methodological rigor and objective perspective necessary to obtain true, empirical knowledge. Together with Descartes's utilitarian rationalism and skepticism, Bacon's rejection of the unobservable and championing of a system of the sciences created the foundation for the scientific method we know today. However, it is not the only philosophical contribution from the Enlightenment period. The next section will consider philosophies of the individual as espoused by Hobbes and Locke.

Hobbes and Locke: Human Nature and the Enlightenment

Philosophers of previous eras had suggested that within human beings dwelt the divine—an immaterial and immortal soul that sought the good. The philosophy of Thomas Hobbes stood in stark contrast to these

previous ideas. Hobbes held that nothing was immaterial—everything was material (Duncan, 2013). Philosophy for Hobbes was the investigation of the material, therefore he drew a clear line between philosophy and theology, warning against the power of religious beliefs to cloud one's ability to understand material, natural law (Lloyd & Sreedhar, 2014). Hobbes held a rather pessimistic view of humanity. As an empiricist he judged humanity based on what he observed—and, thus, he considered the natural state of the world (including us) to be one of war; for resources, power, and authority (Duncan, 2013).

Locke shared Hobbes's empirical view of humanity—though it must be said that he also held a contradictory rationalist point of view as well (Sheridan, 2014). Unquestionably, he believed that humans' desire for resources could be leveraged for the good of the whole. Quoting from Locke (1989):

> To understand Political Power right, and derive it from its Original, we must consider what State all Men are naturally in, and that is, a *State of perfect Freedom* to order their Actions, and dispose of their Possessions, and Persons as they think fit, within the bounds of the Law of Nature, without asking leave, or depending upon the Will of any other Man… [thus] no one can be put out of this Estate, and subjected to the Political Power of another, without his own Consent. The only way whereby any one divests himself of his Natural Liberty, and *puts on the bonds of Civil Society* is be agreeing with other Men to joyn and unite into a Community, for their comfortable, safe, and peaceable living one amongst another, in a secure Enjoyment of their Properties… The great and *chief end* therefore, of mens uniting into Commonwealths, and putting themselves under Government, *is the Preservation of their Property.* (pp. 16–18)

Locke's position is that regardless of individual human nature, we will act peaceably in the interest of defending our property. This fundamental philosophy, along with other of his ideas such as the separation of powers (Rabkin, 1996) as well as Hobbes's contributions would become a key leveraging point for the formation of new forms of government in both France and what would later become the United States (Mansfield, 1996).

From Descartes and Bacon, the Enlightenment has bequeathed a philosophy of an understanding of the nature of reality and how to test and evaluate it. From Hobbes (1996) and Locke (1989) comes the notion that a similar set of laws to evaluate science can be applied in the evaluation of humans—and that indeed our materialism suggests certain types of ideal government. Prior to leaving the Enlightenment, we will turn our attention to perhaps the most influential thinker of The Enlightenment—the mathematician Sir Isaac Newton (Rynasiewicz, 2014).

Newtonian Physics

Sir Isaac Newton stands alone as the father of physical science; his contributions to mathematics, optics, and orbital mechanics profound (Smith G., 2008). What he is best known for, however, are Newton's laws of motion, which established the following:

1. Absolute, true, and mathematical time from its own nature, passes equably without relation to anything external, and thus without reference to any change or way of measuring of time (e.g. the hour, day, month, or year).
2. Absolute, true, and mathematical space remains singular and immovable without relation to anything external… Relative spaces are measures of absolute space defined with reference to some system of bodies or another, and thus a relative space may, and likely will, be in motion.
3. The place of a body is the space which it occupies, and may be absolute or relative according to whether the space is absolute or relative.
4. Absolute motion is the translation of a body from one absolute space to another; relative motion the translation from one relative place to another. (Rynasiewicz, 2014, Overview of the Scholium, para 2)

The effects of Newton's laws were profound, for they gave science an epistemology on which to hang empirical research. And the advances made through Newton's epistemology were world-changing. As Burtt (2003) said:

> Magnificent, irrefutable achievements gave Newton authority over the modern world, which feeling itself to have become free from metaphysics through Newton the positivist, has become shackled and controlled by a very definite metaphysics through Newton the metaphysician. (p. 230)

Burtt notes the irrefutable achievements made through application of Newton's laws, achievements that further cemented Newton's metaphysics as the de facto epistemology (Harper, 2011). Those laws carried significant assumptions—including the linearity of time—that are now nearly considered common sense (Slife, 1993).

The effect of Newton's metaphysics likely cannot be overstated. They were the launching pad for philosophers such as Descartes, Bacon, Hobbes, and Locke—whose philosophies later influenced how we view science and government. Slife (1993) notes, "at the time of psychology's

conception, Newtonian physics was the queen of the sciences" (p. 17), and that the discipline borrowed both its metaphysics, including assumptions of linear time, as well as its empiricist methodology from Newton. In the next section we will see how the influence of these philosophies impacted key events during the Enlightenment, as well as how those events, in turn, affect HRD today.

Seminal Events of the Enlightenment and Today's HRD

The first seminal event of the Enlightenment that we will review actually occurred twice: once in 1682 and again in 1758. A quick bit of math will demonstrate that 76 years passed between these two identical events: the periodic visit of Halley's Comet. One might wonder why an astronomical event would be considered seminal, for the Enlightenment or otherwise. The event itself was not as impactful as was the calculations made to predict its return. Edmond Halley, an English astronomer, had been attempting for decades to work out the mathematics required to successfully predict the comet's return after his observation in 1682. He took the problem to Newton, whose theories of orbit were based upon his laws of motion, and who quickly provided Halley the mathematical support he needed to successfully predict a return (Ridpath, 1985).

The return of the comet was a high profile example evidencing the authority of Newton's laws and of the scientific method. In HRD, and throughout academia, the scientific method and empiricist philosophy is nearly ubiquitous (Slife & Williams, 1995). Chapter 5 of this text delves more deeply into the development of scientific management as an outcropping of empiricism and positivist philosophy. Han, Kuchinke, and Boulay (2009) have written elegantly on the ubiquity of empirical philosophy and methodology that continues in HRD today. In conceptualizing theory building in HRD, Lynham (2002) argues that along with demonstrating utility, good HRD theory "must be extended to include the conditions of empirical rigor and trustworthiness" (p. 236). In current HRD theory and practice, a rigorous empirical approach is not simply suggested, it is understood as the de facto methodology.

The second seminal event stemming from Enlightenment philosophy that we shall consider is the American Revolution. As Staloff (2005) noted:

> The United States of America was forged in the crucible of the Enlightenment; no other nation bears its imprint as deeply. Our ideals of liberty and equality, the ringing "self-evident truths" of the Declaration

> of Independence, and the measured tones of the Constitution and *The Federalist* all echo the language of the Enlightenment and express its most profound convictions about the political life and natural rights of mankind. (p. 3)

The founding fathers were steeped in the philosophy of the Enlightenment, and it was that philosophy that spurred the colonists to rebellion and formed the glue that held together the newly formed country. Recall Locke's (1989) assertion that individuals bind themselves together for the protection of property and then recall that it was not abuse of religious freedoms that caused Bostonians to dump tea into the harbor. In searching for meaning behind the formation of the new country, Wood (1991) eloquently stated:

> To be an American could not be a matter of blood; it had to be a matter of common belief and behavior. And the source of that common belief and behavior was the American Revolution…In concrete day-to-day terms invocations of the Constitution meant the freedom to be left alone, and in turn that freedom meant the ability to make money and pursue happiness. (p. 336)

And so, democracy was the rallying cry and the modality of delivery, but capitalism was the underlying objective of the American Revolution.

Capitalism, then, is the milieu in which HRD functions as a discipline—particularly in the United States. As noted economist Schumpeter (1989) wrote, "All the features and achievements of modern civilization are, directly or indirectly, the products of the capitalist process" (p. 91). As a feature of modern civilization, particularly of modern business practice, HRD falls squarely into the category of output of capitalism. Hatcher and Lee (2003) note the tension between the democratic ideals of HRD and the reality of the capitalistic environment in which it so regularly operates. HRD is a product of the capitalistic environment inspired by Enlightenment philosophy.

Conclusion

This chapter has seen a repeated pattern of philosophy influencing the events of the time in which the philosophy was espoused. The philosophy of the Middle Ages influenced the growth of the church as well as establishment of individual rights. The Renaissance, with its philosophical emphasis on rationalism, civic humanism, and humanistic education, spurred the expansion of trade and led to the discovery of new lands. The

Enlightenment ushered in the Age of Reason and scientific method, as well as the philosophies that spurred the establishment of a new country.

In reviewing the philosophies of each of these eras, one common theme has emerged: all fall within the category of necessity established in chapter 1. Whether it is deistic determinism, humanistic determinism, or materialistic determinism, the root remains the same. Reductionism, particularly as it pertains to time, is also a prevalent assumption found in many of the philosophies considered in this chapter. The assumptions that these philosophies carry, when considered against the dichotomous lens of necessity or possibility, become far more clearly evident.

We have also seen how select seminal events from each of these eras, influenced as they were by the philosophies of their day, have impacted the theory and practice of HRD today. Noted were medieval parallels between training methodologies in training priests to the franchise training methodologies of today, as well as the championing of individual rights that is the hallmark of HRD ethical standards. Humanistic education methods pervasive in today's HRD, trace their lineage back to events of the Renaissance. And, perhaps most significantly, the enormous impact of the establishment of the scientific method as the de facto methodology, and the United States as a capitalist society have held almost immeasurable influence on today's HRD. The next chapter considers the enormous impact of the Industrial Revolution and World War I on HRD as a discipline.

5

The Industrial Revolution

The end of the Middle Ages also brought about a significant reduction and almost extinction of the craft economy in which farmers, artisans, and miners were the predominant workforce (Bass, 1994). The Industrial Revolution of the late 1800s through the early 1900s ushered in the mass production economy and, with it, bureaucratic procedures and the notion of the worker as part of a larger organization (Carnevale, 1991). The American Industrial Revolution showed technological and organizational change in the areas of transportation and communication, roads, canals and engineering, railroads, the telegraph, manufacturing—including the Lowell system in the textile mills with power-operated processes—agriculture, and networks and systems (Williams, 2008). Jensen (1993) also noted widespread technological and organizational change that led to "declining costs, increasing average but decreasing marginal productivity of labor, reduced growth rates in labor income, excess capacity, and—ultimately—downsizing and exit" (p. 2). Energy in preindustrial America came from human labor, animal power, water power, and wood. The key concern then was human labor and the best use thereof. Capital markets played a major role in eliminating excess products and capacity of human resources and "although the vast increases in productivity associated with the nineteenth century industrial revolution increased aggregate welfare, the large costs associated with the obsolescence of human and physical capital generated substantial hardship, misunderstanding, and bitterness" (p. 2). Technological and other developments during the Industrial Revolution yielded rapidly improving productivity, the creation of overcapacity, and, consequently, the requirement for exit. "Although efficient exit—because of the ramifications it has on productivity and human welfare—remains an issue of great importance, research on the topic has been relatively sparse since the 1942 publication of Schumpeter's insights on creative destruction" (p. 3). "The problem that is usually being visualized is how capitalism

administers existing structures, whereas the relevant problem is how it creates and destroys them" (Schumpeter, 1976, p. 83).

The Industrial Revolution was unique because of the vast shift to capital-intensive production, rapid growth in productivity and living standards, the formation of large corporate hierarchies, overcapacity, and, eventually, closure of facilities (Chandler, 1977, 1984, 1990, Jensen, 1993; Lamoreaux, 1985; and McCraw, 1981, 1992). Inventions including the McCormick reaper (1830s), the sewing machine (1844), high-volume canning and packaging devices (mid-1880s), and the automobile assembly line (1913) exemplified a worldwide surge in productivity that "substituted machine tools for human craftsmen, interchangeable parts for hand-tooled components, and the energy of coal for that of wood, water, and animals" (McCraw, 1981, p. 3). "New technology in the paper industry allowed wood pulp to replace rags as the primary input material" (Lamoreaux, 1985, p. 41) and "continuous rod rolling transformed the wire industry: within a decade, wire nails replaced cut nails as the main source of supply (p. 64). All of these transformations brought about a demand in changes of worker knowledge, skills, and abilities (KSAs).

Three significant developments in HRD sprung from the Industrial Revolution and its need for a more specifically skilled worker. First was the birth of vocational education, originated in 1809 by DeWitt Clinton as a means of providing "occupational training to unskilled young people who were unemployed or had criminal records" (DeSimone & Werner, 2012, p. 5). Second was the development of factory or corporation schools as a means of training industrial workers in the specific skills of the factory (Swanson & Holton, 2001). Third was the competing philosophy—referred to in this text as productivity-as-philosophy in a nod to the theology-as-philosophy of the Middle Ages. A more appropriate term is pragmatism (Brandom, 2004), a distinct (and somewhat American) philosophy whose influence in HRD theory and practice was crucial.

VocationalE ducation

Vocational education in the United States originated in Europe and was influenced by apprenticeship, the Industrial Revolution, and the manual training movement, while vocational curriculum development was led by influential leaders, mainly, Booker T. Washington (Washington & Du Bois, 1907; Washington, Wood, & Williams, 1969), W. E. B. Du Bois (1903, 1932, 1935), David Snedden (Drost, 1967), Charles Prosser (Prosser & Allen 1925; Prosser & Quigley, 1949), and John Dewey (Dewey & Dewey, 1915; Dewey, 1916) whose views were incorporated within the curriculum.

Vocational education's professional growth was impacted by land-grant institutional instruction. Many factors influenced the development of vocational education including war activities, study panels, and the American Vocational Association. Legislative history was specifically significant and continues to be today. The changing workforce including the participation of women in vocational education emerged from legislative breakthroughs and the emergence of sex equity, which is today referred to as gender equality (Gordon, 1999).

The foundation of the past and current vocational education system has been built around Charles Prosser's Sixteen Theorem (Prosser & Allen, 1925; Prosser & Quigley, 1949). The theorems are as follows:

1. Vocational education will be efficient in proportion as the environment in which the learner is trained is a replica of the environment in which he must subsequently work.
2. Effective vocational training can only be given where the training jobs are carried on in the same way, with the same operations, the same tools, and the same machines as in the occupation itself.
3. Vocational education will be effective in proportion as it trains the individual directly and specifically in the thinking habits and the manipulative habits required in the occupation itself.
4. Vocational education will be effective in proportion as it enables each individual to capitalize his interests, aptitudes, and intrinsic intelligence to the highest degree.
5. Effective vocational education for any profession, trade, occupation, or job can only be given to the selected group of individuals who need it, want it, and are able to profit by it.
6. Vocational training will be effective in proportion as the specific training experiences for forming right habits of doing and thinking are repeated to the point that these habits become fixed to the degree necessary for gainful employment.
7. Vocational education will be effective in proportion as the instructor has had successful experiences in the application of skills and knowledge to the operations and processes he undertakes to teach.
8. For every occupation there is a minimum of productive ability which an individual must possess in order to secure or retain employment in that occupation.
9. Vocational education must recognize conditions as they are and must train individuals to meet the demands of the "market" even though it may be true that more efficient ways for conducting the occupation may be known and better working conditions are highly desirable.

10. The effective establishment of process habits in any learner will be secured in proportion as the training is given on actual jobs and not on exercises or pseudo jobs.
11. The only reliable source of content for specific training in an occupation is in the experiences of masters of that occupation.
12. For every occupation there is a body of content which is peculiar to that occupation and which practically has no functioning value in any other occupation.
13. Vocational education will render efficient social services in proportion as it meets the specific training needs of any group at the time that they need it and in such a way that they can most effectively profit by the instruction.
14. Vocational education will be socially efficient in proportion, as, in its methods of instruction and its personal relations with learners, it takes into consideration the particular characteristics of any particular group that it serves.
15. The administration of vocational education will be efficient in proportion as it is elastic and fluid rather than rigid and standardized.
16. While every reasonable effort should be made to reduce per capita cost, there is a minimum level below which effective vocational education cannot be given, and if the course does not permit this minimum of per capita cost, vocational education should not be attempted. (pp. 218–233)

These theorems emerged through extensive discussion, debate, disagreements, and dialogue among and between leading vocational education thinkers of that period.

Preparation for a vocation was not the purpose of the university or higher education at the onset of the 1800s. Instead, university education fell more in line with the purposes of Plato's Academy—to prepare individuals socially, academically, and morally to participate successfully in society. This notion changed with the passing of the Morrill Act of 1862 (also known as the Land Grant Act) (Grubb & Lazerson, 2005). The Morrill Act "established programs of training at the college level in agricultural education, industrial and trade education, and home economics education" (Swanson & Holton, 2001, p. 43), thus bringing higher education to a much broader audience than had ever previously been offered. That these subjects were taught at a university also legitimized the notion of vocational training in the minds of the people.

Vocational education's next boon was the passage of the Smith-Hughes Act in 1917, which earmarked congressional funds for the

development of training programs in agriculture, home economics, industry, and teacher training (DeSimone & Werner, 2012). Its passage required the cooperation of vast and varied groups including the National Society for the Promotion of Industrial Education, American Federation of Labor, National Education Association, National Association of Manufacturers, US Chamber of Commerce, National Democratic Party, the Progressive (or Bullmoose) Party, American Home Economics Association, General Federation of Women's Clubs, Wallace's Farmer & Hoard's Dairyman (influential publications of the time), Farmer's Union, National Grange, and the Association of American Agricultural Colleges and Experiment Stations (Hillison, 1995; Paulter, 1999). A cursory glance of such a list of disparate interests emphasizes the notion that vocational education was viewed as a critical aim for the successful growth of the nation.

The growth of vocational education mirrored the ever-increasing need for individuals trained in an ever-increasing number of skills. Matching individuals to the vocation in which they were best suited suddenly became of keen interest to the academic (and indeed commercial) community (Baker, 2009). Thus, career development, a pillar of human resource development, emerged (Cramer, 1999; Holland, 1963; Super, 1953). Assessments were developed by the likes Münsterberg (1913) to assist individuals in finding a suitable vocation (Freeman, 1912). Vocational psychology became an established field with clear ambitions. As described by Parsons (1909):

> The wise selection of the business, profession, trade, or occupation to which one's life is to be devoted and the development of full efficiency in the chosen field are matters of the deepest moment to young men and to the public. These vital problems should be solved in a careful, scientific way, with due regard to each person's aptitudes, abilities, ambitions, resources, and limitations, and the relations of these elements to the conditions of success than if he drifts into an industry for which he is not fitted. An occupation out of harmony with the worker's aptitudes and capacities means inefficiency, unenthusiastic and perhaps distasteful labor, and low pay; while an occupation in harmony with the nature of the man means enthusiasm, love of work, and high economic values, superior product, efficient service, and good pay. (p. 3)

The practicality of vocational guidance was clear from its outset (Bennett, 1937). Parsons's articulation of the ideal union of skilled, invested laborer and meaningful, well-suited occupation is a perfect example of the ethic and aim of vocational education at its commencement during the Industrial Revolution.

Society also influenced vocational education because the rising merchant and trading classes began to press for an education more appropriate to their interests. They sought one that was more useful and utilitarian than that of the Christian scholar and gentleman, so they developed private venture schools. The emergence of the private schools removed the mystery from a trade, a skill, or a craft that was now being transferred, through vocational education, from the family and through apprenticeship into a world of publicly available schools. This transfer of knowledge marked the beginning of the end in America of certain restrictive practices by which control of education, apprenticeship, and, hence, recruitment into the trades of an orderly society had been maintained.

FactoryS chools

One of the unintended consequences of the Industrial Revolution was a significant upheaval of the previously established educational system, particularly the elimination of full-time education for youth. Time spent in school was now spent in the factory. Interestingly, the cause of the deficiency in education also provided the solution with the advent of the factory (or corporation) school (Sanderson, 1967). The first factory school was located at Hoe and Company in 1872. They were joined by Westinghouse in 1888, General Electric and Baldwin Locomotive in 1901, International Harvester in 1907, and Ford, Western Electric, Goodyear, and National Cash Register shortly thereafter (DeSimone & Werner, 2012).

Early factory schools adopted a modified apprenticeship model in which young men would learn increasingly complex aspects of factory work as well as classroom learning and instruction (Nelson-Rowe, 1991). Beatty (1918) outlined the five purposes of the factory school: (1) the development of trained workers; (2) the development of managerial talent; (3) improvement in quality of output; (4) decrease in the turnover of labor; and (5) reduction in waste and in number of accidents. A less explicitly stated purpose of the corporation school was to lessen the influence of worker's unions—an influence that was monumental in vocational education as a means of swelling the union ranks (Jacoby, 1996). This concern for worker unrest and union activity can be seen both in the dialogue of corporation school leaders, as well as in the means (such as shareholder programs) by which such actions were combated (The National Association of Corporation Schools, 1920).

Collectively, factory schools were keenly interested in applying the best thinking and research of the time to meeting the five aims outlined

previously. Henderschott (1918), a founder of The National Association of Corporation Schools, made an appeal to psychology for assistance in addressing the challenges of effectively managing the workforce, that is:

1. A lack of understanding, almost universal in extent upon the part of the individual, as to the law of rewards.
2. The absence of standards sufficiently understood at least, by which the individual can measure his comparative value as a worker and thereby determine his position among his fellow men.
3. A lack of the element of leadership—or a lack of knowledge of methods through which latent talent for leadership may be aroused and developed.
4. A lack of information about or understanding of the earlier periods in the history of the world and of how civilization has developed.
5. A lack of civic vision on the part of both executives and workers of industrial institutions.
6. The lack of an equitable system to insure a just distribution of rewards earned. (pp. 214–215)

The 1919 bulletin of the National Association of Corporation Schools addressed topics such as "What to Teach and How to Teach It"; "Recognizing Loyal and Faithful Service"; "How the Westinghouse Air Brake Company Solved the Problem of Feeding 2,500 Employees"; and "Reducing Marketing to a Scientific Basis," among a host of others. In Henderschott's plea and the bulletin's topical choices, one can very clearly see the first echoes of a more formal HRD process in the problems addressed and stratagems developed by these early corporate leaders.

Pragmatism

Pragmatism is a philosophical movement that has had a major impact on American culture from the late nineteenth century to the present, and calls for ideas and theories to be tested in practice (Paulter, 1999). Pragmatists assess whether acting upon the idea or theory produces desirable or undesirable results and test all claims about truth, knowledge, morality, and politics (Fenwick, 2005). Pragmatists do not believe that there are absolute truths and absolute values. In a sense, pragmatism is the quintessential American philosophy: use what works. HRD professionals have been using a pragmatic approach to consulting (Bell, 1977) without it becoming a prevalent approach within HRD research. HRD scholars and professionals used mixed methods, complexity, systems dynamics

research, yet, very little HRD research is evaluated from the pragmatic perspective (Jayanti, 2011; Kuchinke, 2001; Sambrook, 2008).

O'Donnell, McGuire, and Cross (2006) suggest that HRD scholars and professionals challenge their assumptions using critical analysis from a pragmatic perspective; thus, HRD scholars and professionals must understand what pragmatism is and how it relates to the HRD discipline. Reio (2012) described the need for curiosity-driven scholarship, which also requires a pragmatic perspective.

The challenge of pragmatism is not that it is not leveraged in today's HRD, but rather that it is leveraged inconsistently and haphazardly, which is the leading concern at the heart of the theory/practice debate within the HRD field. Practitioners have embraced a de facto pragmatism—use what works. What is lacking is the rigor required (and ideally supplied) by theoreticians to determine what is truly pragmatic versus simply expedient.

ScientificM anagement

Scientific management, a natural outcropping of the Industrial Revolution, arose from the factory's need to run ever-more efficiently and effectively—in effect, to do more with less effort (Gilbreath, 1912). Applying scientific method to manufacturing and, particularly, human resource management led to core principles that could be replicated in virtually every environment. Frederick W. Taylor, a Philadelphia engineer, pioneered the concepts of scientific management and outlined its purposes and aims. Scientific management and its principles represent an argument for Taylor's Philosophy of Human Labor (1911).

The four principles of scientific management are as follows:

> *First*. They develop a science for each element of a man's work, which replaces the old rule-of-thumb method.
>
> *Second*. They scientifically select and then train, teach, and develop the workman, whereas in the past he chose his own work and trained himself as best he could.
>
> *Third*. They heartily cooperate with the men so as to insure all of the work being done in accordance with the principles of the science which has been developed.
>
> *Fourth*. There is an almost equal division of the work and the responsibility between the management and the workmen. The management take over all work for which they are better fitted than the workmen, while in

> the past almost all of the work and the greater part of the responsibility were thrown upon the men. (Taylor, 1911, p. 11)

The application to HRD, and particularly training, was readily apparent. In describing the conditions of the day Taylor (1911) wrote:

> The search for better, for more competent men, from the presidents of our great companies down to our household servants, was never more vigorous than it is now. And more than ever before is the demand for competent men in excess of the supply. What we are looking for, however, is the ready-made competent man; the man whom some one else has trained. It is only when we fully realize that our duty, as well as our opportunity, lies in systematically cooperating to train and to make this competent man, instead of hunting for a man whom some one else has trained, that we shall be on the road to national efficiency. (p. 6)

From Taylor's words one can clearly see the critical nature of more effective employee management and training, as well as the explicit goal to manage and train that employee in a way that was systematic, empirical, and replicable (Thompson, 1917). It is worth noting that concurrent with the private sector's reach for an empirical approach to management, John Watson was advocating an empirical approach to psychology, stating that the "businessman could use our data in a practical way" (Watson, 1994, p. 251). (A more explicit description of behavioral and cognitive psychology appears later in this chapter.) That the rise of scientific management, with its underlying empirical, reductionist philosophy, occurred concurrently with the establishment of a theory of psychology that shared the same philosophical assumptions was surely no accident.

Two significant events caused the acceleration of scientific management as a practice. The first was the creation and implementation of Henry Ford's assembly line and second was the advent of World War I (DeSimone & Werner, 2012).

Ford'sA ssemblyL ine

As Ford's assembly line drove down automobile prices, demand increased—thus requiring more assembly lines and more individuals trained to operate them. In fact, the assembly line with its emphasis on efficiency and replicability is a sterling example of scientific management at work (Drucker, 1999). Automobile manufacturers, and soon others, were forced to meet the new standards of cost and speed, with scientific management providing the how-to blueprint.

According to Henry Ford (Ford & Crowther, 1922) the following are the principles of assembly:

1. Place the tools and the men in the sequence of the operation so that each component part shall travel the least possible distance while in the process of finishing.
2. Use work slides or some other form of carrier so that when a workman completes his operation, he drops the part always in the same place—which place must always be the most convenient place to his hand—and if possible have gravity carry the part to the next workman for his own.
3. Use sliding assembling lines by which the parts to be assembled are delivered at convenient distances. (p.80)

The principles were developed to improve productivity by reducing movement of workers throughout the work process and enhancing assigned task performance.

WorldW arI

World War I's influence on the spread of scientific management can be significantly attributed to one man—Bernard Baruch (Smiddy & Naum, 1954). Baruch served as the first chair of the War Industries Board, an entity created to coordinate and manage the purchase of supplies needed for the US war effort (*The New York Times*, 1917). Baruch opened up the manufacturing and supply channels to any and all sources, thus leveraging the power of the free market economy to reduce cost while increasing speed and quality. Manufacturers that could not run their operations efficiently would fail as governmental contracts went to the lowest cost operator. Companies operating via the principles of scientific management enjoyed a distinct advantage in such an environment.

The demand for rapidly expanding production was particularly pronounced in the shipyards, where demand increased ten-fold due to the war effort (Huntzinger, 2002). Charles Allen, a former vocational instructor who became director of training for the US Shipping Board, utilized scientific management principles to increase the time-to-competency of previously unskilled laborers. His four-step method, later named job instruction training (JIT), was simple and effective. Allen (1917) described it as follows:

> Each complete teaching lesson calls for four steps, or teaching operations known as step 1, Preparation, step 2, Presentation, step 3, Application and step 4, Testing (or Inspection). These steps are always carried out in the order given—The purpose of step 1 is to get the learner ready to be instructed, of step 2 to instruct him, of step 3 to check up errors, and of step 4 to give a final inspection of the instruction job. (p. 129)

These four steps of instruction are still used today as an effective means of teaching basic skills (DeSimone & Werner, 2012), as are common phrases coined by Allen such as "telling is not training" (Stolovitch & Keeps, 2011).

Continuing the work of Münsterberg (1913), the development of aptitude testing accelerated during World War I (Ghiselli, 1973). Individual traits were seen as potential grist for the mill of efficiency (Münsterberg, 1913). Efficiency and efficacy in identifying those with capacity to learn a vocation was paramount and consistent with the ethos of scientific management (Seashore, 1917). The military leveraged the science of testing for a three-fold purpose, "(a) to aid in segregating the mentally incompetent, (b) to classify men according to their mental capacity, (c) to assist in selecting competent men for reasonable positions" (Yoakum & Yerkes, 1920, p. xi). For the military, aptitude testing became a key feature in an overall strategy to identify and train individuals to carry out the mission of the organization, a strategy that continued throughout the twentieth and into the twenty-first century with the development of the Armed Services Vocational Aptitude Battery (Cronbach, 1979; Peterson, Park, & Castro, 2011).

The military's leveraging of scientific management principles extended beyond vocational testing. In 1899 Elihu Root, a devotee of Fredrick Taylor and scientific management, was named the US secretary of war (Sibul, 2011). Scientific management principles were applied to military operations, as well as military education, as the fundamental tasks of war were identified and perfected. The military's dedication to the perfection of technical skills training had two key downstream benefits as noted by Roberts (1976). First, the military became a key source of training innovation. Second, retired military personnel brought their technical skills to bear in the private sector to the boon of the nation. This latter suggestion was supported by Fredland and Little (1980) who found a long-term economic benefit to veterans trained in vocational skills via the military.

Finally, the state extended the commitment of education and learning of the military with the passing of Public Laws 16 and 346 (also known as the GI Bill) (Brophy & Long, 1943). This legislation permitted veterans

access to funds to be applied specifically to the pursuit of education. The combination of vocational assessment, scientific management as applied to training, and legislative commitment funding veteran education cemented the military's role as a key innovator in technical skills training and career development—both core practices of HRD (Davis, Naughton, & Rothwell, 2004).

EmploymentM anagement

The implementation of scientific management practices in industry was joined by other significant changes that would impact HRD. Baron, Dobbin, and Jennings (1986) detail three major changes in employment management during this period. First was the introduction of what was at the time called welfare work practices—the precursor to modern benefits packages. The second, as has been detailed in this chapter, was the implementation of scientific management practices. The third was a shift in management approach centered around adopting personnel practices that would reduce turnover and better leverage the existing workforce. Baron, Dobbin, and Jennings (1986) describe this third change thusly, "hiring, promotion, and firing were centralized and regulated; exiting employees were interviewed; systematic turnover records were kept; salary classification, rating systems, and job ladders were introduced or extended; and centralized personnel units flourished" (p. 359). The implementation of scientific management, coupled with the introduction of centralized personnel management, constituted the beginnings of technical and bureaucratic control systems that would help dictate business practice for decades to come (Edwards, 1979).

Conclusion

As in previous eras reviewed in this chapter, there is clear linkage between the philosophy of the Industrial Revolution and the seminal events stemming from the period. As the prevailing philosophy of the time shifted away from Neo-Platonism, there came to bear a "new notion of virtue, one that dramatically rejects the assumptions of civic humanism. Citizenship and the public quest for the common good were replaced by economic productivity and hard work as the criteria of virtue" (Kramnick, 1982, p. 662). Musson and Robinson (1969) describe the philosophical shift of the time by stating that "the essence of the Scientific Revolution was the change from metaphysical to experimental science, and that this change was stimulated by technological, economic, and social factors" (p. 29).

This increased focus on the empirical versus metaphysical, spurred by the industrial advances of the time, provided a philosophical grounding from which many of the behavioral sciences have never uprooted (Slife & Williams, 1995).

The impact of the Industrial Revolution on HRD as it is practiced today is immense. Scientific management is the progenitor of evidence-based practice (Rousseau, 2006), an ontology that is still clearly embraced in HRD today (Hamlin, 2002; Holton, 2004; Terpstra & Limpaphayom, 2012). The application of psychological testing also continues to play a key role in HRD practice as organizations seek to leverage empirical methods to match the individual to the work environment (Berr, Church, & Waclawski, 2000), or to identify skill sets critical to the changing work environment (Lohman, 2004; Messmann & Mulder, 2012).

Perhaps most significant is the impact of the development of the factory school on current HRD practice. Noe's (2005) definition of training exemplifies this impact. He defines training as follows:

> Training refers to a planned effort by a company to facilitate employees' learning of job- related competencies. These competencies include knowledge, skills, or behaviors that are critical for successful job performance. The goal of training is for employees to master the knowledge, skill and behaviors emphasized in training programs and to apply them to their day-to-day activities. (pp. 3–4)

Explicit in Noe's definition is the role of private organizations in managing the process of skill development. Abel and Li (2012) note the expansion of corporate involvement in employee skill building through the establishment of corporate universities with the clear purpose of "achiev[ing] competitive advantage through improved workforce performance and productivity" (p. 104). With their focus on performance and productivity, the aims of the early factory schools and today's corporate universities are clearly in close alignment. Senge (1990) popularized the idea of a learning organization and it remains an evolving concept for HRD scholars and professionals (Dixon, 1999; Garvin, 1993; Hosley, Lau, Levy, & Tan, 1994; Kerka, 1995; Marquardt, 1996; Meister, 1998).

The impact of the Industrial Revolution on the eventual discipline of HRD was significant. First was the establishment of vocational education as a viable educational alternative—a clear movement away from education as an ennobling force for the individual and toward education as a primarily societal benefit. Scientifically developed assessments to assist in determining job fit were also introduced and leveraged in both the public and private sector. Factory schools were also introduced as education was,

in part, removed from the public arena and brought to private enterprise. Finally, with the advent of Ford's assembly line and World War I came the introduction of scientific management as a methodology for consistently delivering operational results. With its emphasis on testable, replicable findings, scientific management clearly aligns with an empiricist philosophy that was prevalent at the time.

6

World War II

In 1944, when World War II was in full swing would anyone have imagined that B. F. Skinner (yes, the same B. F. Skinner who developed operant conditioning) would be playing an integral role in America's development of a weapon? Or, that his development would be related to training? Although he did not train humans, he trained pigeons to guide bombs by pecking a target that would hold a missile on its trajectory.

WWII brought many about changes that remain evident in modern human resource development. A clear understanding of WWII's role is outlined within this chapter. Many of these changes did not happen during the war, they were spawned after the war. The Training within Industry (TWI) service, the human relations movement, and the mass entry of women into the industrial workforce are three occurrences specifically noted in this chapter.

The onset of World War II spurred into action, once again, the industrial arm of the United States to support the manufacturing needs of the war effort. In response to this need for increased efficiency and quality in the manufacturing sector, the federal government established the Training within Industry service (DeSimone & Werner, 2012). TWI, with Channing R. Dooley as its head, focused on three main areas: job performance (efficiency), job quality, and human relations (Swanson & Holton, 2001). This effort and focus is considered by many to be the starting point of contemporary HRD (Swanson, 2001).

Trainingw ithinI ndustry

Dooley (1945) established multiple programs to address the topics of performance, quality, and human relations (Jacobs, 2002). Specifically, job instruction training (JIT) addressed the need to systematically improve and consistently replicate job training; job methods training (JMT)

met the challenge of improving job quality; and Job relations training (JRT) gave specific means and methods for improving relations between employee and supervisor (a need identified by the human relations movement, as detailed previously). Each method was presented with accompanying training and J-cards (job aides to assist in recalling and utilizing the methods on the job) to supervisors across the country in war-impacted industries. A brief examination of each illustrates the continued impact on the field of HRD.

Job Instruction Training (JIT)

Due to the urgency of the need, job instruction training was the first training system rolled out by TWI (Huntzinger, 2006). JIT, initially developed by Charles Allen (1917) is a four-step method of instruction that is essentially a train-the-trainer approach to teaching job skills (Dooley, 1945). Prior to instruction, the trainer is to determine the following:

1. Decide what the learner must be taught in order to do the job efficiently, safely, economically and intelligently.
2. Have the right tools, equipment, supplies and material ready.
3. Have the workplace properly arranged, just as the worker will be expected to keep it. (p. 193)

Once the instructor has thus prepared, the four steps originally outlined by Allen are followed, that is: (1) preparation, (2) presentation (demonstration of the skill), (3) performance (the learner attempts the skill) and (4) follow-up. The JIT methodology proved to be highly repeatable, thus leveraging a multiplier effect in which large numbers of individuals could be trained in a variety of circumstances with available personnel (Robinson & Schroeder, 1993).

Not only was the JIT methodology repeatable, but it was also impactful. Dooley (1945) noted improvements at Northrop Aircraft in Hawthorne, California. Specific improvements included a 17 percent increase in productivity, a 22 percent reduction in break time, and a 45 percent reduction in injuries. Indeed, as innovative and impactful as JIT proved to be, Dooley's fastidiousness in testing and proving his methodologies were equally so.

Job Methods Training (JMT)

JMT introduced and formalized the concepts of continuous improvement in the United States (Bhuiyan & Baghel, 2005) and eventually

became the impetus for industry-standard process and quality improvement methodologies such as Deming's management model (Deming, 1986), Kazien/Lean (Huntzinger, 2006), and Six Sigma (Soltero, 2004). Continuous improvement also found expression in HRD through the work of Kirkpatrick and his organizational elements model (Watkins, Leigh, Foshay, & Kaufman, 1998). Dooley (1945) outlined the four steps of JMT as: (1) breaking down the job into its individual steps as it is currently being accomplished, (2) carefully analyzing each detail of each step with an eye toward questioning the utility and effectiveness of each step, (3) developing a new method based upon opportunities uncovered by the analysis conducted in step two, and (4) applying the new method. Special emphasis was made to ensure employers understood their employees were not to become quality engineers. Instead, much like his train-the-trainer/multiplier JIT model, all employees would be empowered to find opportunities to improve the quality and efficiency of their work.

Dooley's attention to downstream results held true with his evaluation of the JMT model. As an example, Dooley described the need for maximum efficiency of war-related industry in the Hawaiian Islands. Due to the fixed number of available workers, plantations and other such organizations on the islands were pressed to find ever-more efficient and effective ways of working. He summarized the success of one such facility, writing "new methods saved 7,460 man-days a year—the equivalent of adding 25 men to the payroll. Installing the improvements cost $11,000; the yearly savings were $40,000" (1945, p. 99). Such well-detailed results were typical of Dooley's reporting.

Job Relations Training (JRT)

The final methodology developed by Dooley was the job relations training method. Unlike the previous methods, in which some existing research or specific methodology could be used as a baseline, no proven method of improving human relations had been established (Dooley, 1945). The need to develop such training, however, was clear. Upon surveying supervisors and their managers, it was found that "one of the most apparent weaknesses was in handling relationships with other people" (p. 205).

A two-year development process with ten iterations of vetted methodologies spawned the final JRT method, released in 1943 (Dooley, 1945). The first version was simple, with three key points of instruction for supervisors: "1. Employees are human beings. 2. They are all individuals. 3. It is important to find out how they feel" (p. 210). While not explicitly stated by Dooley, the influence of human relations theorists such as Mayo (1945)

and Follett (1919) is evident in his initial JRT model. Eventually, the model was modified to first state fundamentals of good supervision, that is:

> Everyday recognition of people as individuals. Letting people know how they are getting along. Giving people a chance to talk over in advance the things that affect them. Giving credit when due. [And] [m]aking the best use of people's ability. (p. 215)

These principles were put into action with a four-step action plan to be used when supervisors encountered a relations issue: "1. Get the facts. 2. Weigh and decide. 3. Take action. [And] 4. Check results" (p. 215).

Results of JRT were positive, and consistent with the other J-programs. Particular improvement in absenteeism was seen by organizations that implemented the JRT program (Dooley, 1945). In all, the importance of the work done by Dooley and the Training Within Industry group cannot be overstated. The models Dooley established continue to resonate within HRD and have been called upon as standards to which the industry should return (Sirny, 1975). Perhaps underrated at the time but critical in today's HRD was Dooley's diligence in testing and proving his models. His identification of training return on investment (ROI) is evidenced in the Hawaiian Islands example—a concept that is of immense focus and import in today's HRD practice (Phillips, 1996).

An unfortunate and unacceptable consequence of the Industrial Revolution (and, it must be said, of the scientific method of management) was the overemphasis on the collective at the expense (and oftentimes abuse) of the individual (DeSimone & Werner, 2012; Hughes, 2012). This condition underscored the general tension between autonomic and group benefits that continues to be at the crux of the HRD challenge (Elliott & Turnbull, 2003). Turner (1976) described the challenge thusly:

> Institutional motivations are external, artificial constraints and superimpositions that bridle manifestations of the real self. One plays the institutional game when he must, but only at the expense of the true self. The true self consists of deep, unsocialized, inner impulses. Mad desire and errant fancy are exquisite expressions of self. (p. 992)

HumanR elationsM ovement

That the pendulum had swung too far in one direction was apparent to many, including Chester Barnard (1938), Mary Parker Follett (1919, 1927, 1970), and Elton Mayo (1945). As the United States prepared for war yet again, these scholars and others gave rise to the human relations

movement (Swanson & Holton, 2001). The human relations movement differentiated itself from scientific management in its concern for the individual worker, arguing that "organizational effectiveness resulted from meeting the needs of employees for constructive social relationships, satisfaction, and self-actualization" (Ledford, 1999, p. 27).

HawthorneE xperiments

If the human relations movement had a genesis, it was the Hawthorne experiments conducted by the Western Electric Company in the mid-1920s. The Hawthorne experiments are so named because they took place at the Hawthorne manufacturing facility. Over the space of two years, the productivity of factory workers was assessed against a variety of variables (fatigue, working conditions, etc.). It is worth noting that the Hawthorne experiments also introduced the interviewing research methodology and theories of Jean Piaget to the United States (Hseuh, 2002). It is somewhat surprising that a psychological theorist best known for his structuralist theory of child development first came to light in the United States via the avenue of industrial psychology. Nevertheless, Piaget's clinical interviewing techniques (Piaget & Kamii, 1978) in which the interviewer listened attentively and without guidance to the interviewee provided the foundational approach to the Hawthorne experiments (interestingly enough, without the knowledge of Piaget himself).

The results of the Hawthorne experiments were unexpected. The most predominant factor in the productivity of the employee was found to be attitude toward one's immediate supervisors (Pennock, 1930). It should be noted that later research of the original Hawthorne findings cast doubt on this hypothesis (Pitcher, 1981). Nevertheless, once the results of the Hawthorne experiments were popularized, they became the de facto means of understanding employer/employee relations.

The Hawthorne experiments gave legitimacy to the notion that the worker's thoughts, feelings, wishes, desires, and opinions were of concern and utmost importance to organizations. This nascent notion was provided a platform with the publication of Barnard's (1938) *The Functions of the Executive*. Barnard's career spanned 40 years with American Telephone and Telegraph (AT&T), culminating in the presidency of New Jersey Bell—the post he occupied at the publication of his work. Underscoring this growing schism between the needs of the individual and the organization, Barnard wrote:

> The significance of these observations may be made clearer by noting the extreme differences of conception regarding the "individual"—to

> take one word—in discussions of cooperation and of organizations and their functions. On the one hand, the discrete, particular, unique, singular individual person with a name, an address, a history, a reputation, has the attention. On the other hand, when the attention transfers to the organization as a whole, or to remote parts of it, or to the integration of efforts accomplished by coordination, or to persons regarded in groups, then the individual loses his preeminence in the situation and something else, non-personal in character, is treated as dominant. (pp. 8–9)

SystemsT heory

Barnard's solution for this challenge was the proposal of a systems theory of organizations. In his text, Barnard suggested that humans all strive for "fullness of personal development" (1938, p. 296) primarily through their association with explicit and implicit systems. The challenge of leadership, given this model of human behavior, is to encourage and manage individual cooperation to the benefit of the individual and the organization. He suggested the executive serve three functions: (1) the maintenance of organization communication, (2) the securing of essential services from individuals (subdivided into recruiting others into the system and then inspiring them to greater fealty and effort once affiliated), and (3) the formulation of purpose and objectives.

Barnard's text (1938), coupled with the results of the Hawthorne experiments, further drove the human relations movement, which was additionally encouraged and emboldened by the writings and works of Mary Parker Follett. Follett did not fashion herself a businesswoman. In fact, her initial interests lay more specifically in political science. Nevertheless, she found great interest and passion in the human factor of management (Sethi, 1962).

Follett's Law of the Situation

Mary Parker Follet's enduring contribution to HRD is, as she described it, the law of the situation (Fox, 1968). She explained the this as "the discovery and formulation of modes of unifying" (1919, p. 586). This concept of unifying was central to her thesis of management. Follett saw humans as constantly striving for freedom, and came to the conclusion that the primary vehicles for that fulfillment were the associations they formed with others. Follett defined this freedom as the "free range of activity and thought and power and control" (1970, p. 137). This fundamental aspect

of human behavior—striving for freedom through communal association—had a clear impact upon management:

> If the industrial manager is to get the fruits of scientific management, he must understand the intricate workings of a group…It is impossible to work out sound schemes of compulsory compensation or compulsory insurance without understanding the group relations and group responsibility upon which these are based. And so on and so on. The study of community as process is absolutely necessary for the sound development of industry. (Follett, 1919, p. 585)

Follett did not suggest the elimination of scientific management; far from it. Instead, she suggested a broadening of the approach to take into consideration the fundamental elements of human behavior outlined above. In so doing, she proposed the creation of what could be considered the first HRD professional. Follett (1927) describes the role thusly:

> There should be, I think, in every plant, an official, one of whose duties should be to classify and interpret managerial experience with the aid of the carefully kept records which should be required of every executive. For such classification and interpretation of experience—this experience which in essentials repeats itself so often from time to time, from department to department, from plant to plant—it would be possible to draw useful conclusions. The importance of this procedure becomes more obvious when we remember that having experience and profiting by experience are two different matters. (p. 77)

Compare Follett's idea of the role of the HRD professional with McLagan's (1989) later definition of HRD:

> On a simple level, HRD is the process of increasing the capacity of the human resource through development…So HRD is something that everyone does. Individuals do it as they work to develop themselves, managers do it as they work to support others' development, and the HRD staff does it as it creates the overall development strategy and provides formal development tools to the organization. (p. 52)

McLagan's role for the HRD staff, to provide the formal tools and strategy of human resource capacity, is a natural progression of Follett's charge to classify and interpret managerial experience for future benefit. In order to provide effective tools and impactful strategy, as McLagan suggests, HRD first needs the organizational knowledge suggested by Follett. One predicates the other. Follett was a clear thought leader in the development of the human relations movement.

Mayo'sM ethodology

Another who provided much of the theoretical and philosophical backbone to the human relations movement was Elton Mayo, an Australian philosopher, writer, clinical psychologist, and political scientist who was part of the faculty of Harvard Business School (Hseuh, 2002). Midway through the Hawthorne experiments, Mayo was called in to assist in the research and help interpret the results (Gomberg, 1957). Mayo's methodology (1945), based upon the interviewing theories and practices of Jean Piaget, was fundamentally comparative in nature. In other words, hypotheses were developed based upon a conceptual framework and tested, compared against a like group, measured against the objectives of the organization, and validated through repetition (Dale, 1959).

While Mayo's (1945) methodology was influential, his philosophy was doubly so. Mayo's philosophies were in line with both Barnard (1938) and Follett (1919) in that he identified personal growth and development as the fundamental goal of humans, the role of (formal and informal) social groups as the primary means of that growth and development, and the leader's task to leverage those concepts for the growth of the organization. Mayo's key contribution to the human resource movement, as seen in the results of the Hawthorne experiments, was the establishment of employee engagement as a key predictor of productivity in the workplace (Melé, 2003). Mayo (1945) described the notion by stating:

> It is far easier for an industrialist to assume the overwhelming importance of material and technical factors and to neglect, or shrug off, the need for active and spontaneous participation in the effort by the workers. Yet[,] it is true that the larger the organization the more dependent is it, not only upon technical advance, but also upon the spontaneous human cooperation of every last member of the group. (p. 117)

Mayo's influence on HRD cannot be overstated. His two fundamental assumptions of human relations, that individuals seek social alliance and cooperation and that an engaged employee is a more productive employee, became the de facto bulwarks of the discipline (Sarachek, 1968) and continued to influence the theory and practice of HRD into its modern era (Ledford, 1999).

While given the name of human relations movement, the informing philosophy of the time was humanism (Melè, 2003). The humanistic view

is well-defined by Pirson and Lawrence (2010) who describe the view of the individual as follows:

> A zoon politicon, a relational man. Someone who materializes his freedom through value-based social interactions. People he or she engages with are a means but also an end to themselves. Human beings in the humanistic view are guided by universally applicable principles and long-term relationships. They are intrinsically motivated to self-actualize and serve humanity through what they do. (p. 560)

Note the description of the individual as a social creature, yet one striving for individual actualization. This point of view and philosophy is completely in keeping with the human relations movement as defined during this time by Mayo (1945), Follett (1919), and Barnard (1938). It is also alignment with Maslow's hierarchy of needs (Benson & Dundis, 2003; Fox, 1990; Maslow, 1968).

Before leaving the discussion of the human relations movement, it is worth discussing the fact that dissenting opinions did in fact exist. The fundamental assumption of the human relations movement was that the development of employee-centered programs and management style would result in more productive employees. An alternative school of thought, proposed by the Chicago School of Sociology, suggested that "restriction of output was a rational response to managers failing to provide appropriate conditions" (Burawoy, 2008, p. 375). In other words, the root of the problem of worker productivity was not necessarily the irrationality of the worker but of the manager in failing to provide the appropriate material support given the expectations (Hughes, 2012). All resources must be aligned for productivity to occur: both people and technological (Hughes, 2010, 2012).

This alternative school of thought was supported legislatively and judicially with the Wagner Act of 1935 providing workers the right to unionize followed by the Supreme Court ruling two years later that the state could set a minimum wage (Van Wezel Stone, 1981). From this vantage point, the interests of the worker and that of private industry were opposed, and the state was required to intervene. Similar to the human relations movement, the labor movement was spurred by a rejection of scientific management as a methodology (Hogler, 1989). The approach of the labor movement in rejecting scientific management was far different.

It should be noted that the growth of the labor movement at this time provided a critical counterpoint to the human relations movement. In terms of root cause analysis, the human relations movement suggested

that poor production was a result of a poorly engaged employee (Barnard, 1938). For the labor relations movement, poor production may be caused by a poorly engaged employee, but only as a logical response by management to provide appropriate conditions (Burawoy, 2008).

Women and the World War II Workforce

A discussion of the World War II workforce is incomplete without an acknowledgement of the significant demographic change that occurred during the war years, specifically, the notable increase of married women into the industrial workforce (Goldin, 1991). During World War II, the absence of men who left their industrial jobs to join the armed forces resulted in labor shortages, and large-scale recruitment campaigns were designed and launched to entice women to enter the workforce. Approximately six million women entered the workforce en masse and from 1940–1945, the female labor force grew by 50 percent. Along with this growth came more acceptance of middle-class women in the workplace, which, until this time was discouraged as socially nonnormative (Wittmer & Rudolph, 2015). There were women in the workplace prior to World War II, and they were primarily American black women whose skills were limited to domestic care workers (Hughes, 2014).

Mulligan (1998) conducted research evaluating the average work hours and work productivity during WWII when compared with pre- and postwar levels. General economic theory holds that an increase in hours worked and production is a result of changes in budget sets (tax and spending policy.) Uniquely, with the advent of women in the workforce, the standard economic theory did not hold. Increases in work productivity could not be accounted for through pecuniary means.

The rapid expansion that occurred after World War II was an unprecedented occurrence because the vast demand for capital and low interest rates—made even lower thanks to tax deductions—made debt financing increasingly attractive. The government was willing to take extraordinary economic measures to ensure success in the war. Mulligan's (1998) assessment was not during a traditional economic period. During World War II in the United States, women were asked to work in factories and teach at schools when the men went off to war. School system employment of women and two-income families became overnight occurrences. The men received their armed services pay and the women now brought home an income too.

While Goldin (1991) contends that World War II was not the watershed event for female participation in the workforce, there is no question

that during this time, the increase in female participation had a unique impact on the workforce environment. As such, it is a powerful variable that must be considered when evaluating the context of events from this period.

A more robust examination of the impact of the entry of women into the workforce during the WWII era and the attendant changes in HRD philosophy and practice stemming from that event would likely prove fruitful. Bierma and Cseh (2003) note a general dearth of research conducted in HRD from a feminist framework. Such research would further the aims of the central thesis presented here as well as provide a valuable alternative perspective in the discipline. Education of women increased, yet fewer women were able to take advantage of it. Seminaries for girls slowly incorporated the study of intellectual subjects that were not preparatory to domestic duties. The demand for teachers for the rapidly increasing schools swept away the eighteenth-century objection to women as teachers which also opened doors for women in other professions.

Buzzanell and Goldzwig (1991) noted that the mommy track as discussed in organizations is a division that "objectifies the individual in the organization rather than promoting a person's worth, competence, and ability to balance work and family issues" (p. 476). As more and more women entered the workforce during and after World War II, they began to question the mommy track and demanded an evolution of careers to allow women to balance work and family (Helge & Haunschild, 2003). From an HRD or career development perspective, this suggested that more past studies of the impact of the economy and society on career development be used to analyze current economic and social trends, and to find out to what extent women have benefited since WWII.

Post-World War II Labor Laws and Other HRD Influences

As World War II came to an end, the responsibility for many industrial laws and regulations shifted to the federal government, including the management of safety laws and regulations. The federal government has since established a number of agencies whose essential function it was and still remains to implement and enforce specific safety regulations to which all individuals and corporations must adhere.

LaborL aws

Labor unions were present in the United States as early as the 1600s but significantly increased during the 1800s as a result of the consolidation

of railroad systems. Congress took a stand against them with the first significant changes to the National Labor Relations Act (NLRA) and the Norris-LaGuardia Act. The Labor-Management Relations Act of 1947, also known as the Taft-Hartley Act was clearly an antilabor law ("Federal Labor Laws," 1993). It converted the National Labor Relations Board (NLRB) into a purely judicial board by transferring the prosecution of unfair labor practices to a general counsel. The "closed shop" and closed shop union halls that discriminated against nonunion members were prohibited under the Labor-Management Relations Act.

Supervisory employees were excluded from coverage under the Wagner Act of 1935 and procedures for preventing "national emergency" strikes were enacted. Congress also approved the Landrum-Griffin Act in 1959, which is also known as the Labor-Management Reporting and Disclosure Act (LMRDA). This legislation amended the Labor-Management Relations Act and ensured many basic standards of democracy and fiscal responsibility in labor organizations representing employees in private industry. The LMRDA gave states permission to preside over cases that the NLRB declined, while disallowing the NLRB the opportunity to broaden the categories of cases it would not handle. The LMRDA banned recognition picketing and required the NLRB general counsel to seek an injunction against organizational picketing. It also repealed the requirement that a union must file a non-Communist affidavit and a financial report in order to obtain a hearing before the board. The LMRDA established a "Bill of Rights" that guaranteed freedom of speech, voting in elections, attending leadership meetings, assembly of members, and nominating union members for office (Sloane & Witney, 2003).

Despite all the laws and regulations, African Americans struggled to benefit from their workforce contributions and career development during and after WWII. According to National Video Resources in an article entitled, "The Double 'V': African Americans and World War II," white workers in places like Mobile and Philadelphia, staged "hate strikes" to protest the promotion of black workers, and race riots erupted in several cities during the war, including New York, Los Angeles, Philadelphia, and Detroit (Donaldson, 1991). Without slave labor, there was no enduring agriculture economy prior to 1865, and after 1865 until the end of World War II, American blacks were consistently forced to work for free (Blackmon, 2008).

ComputerT echnology

The computer technology development process began in earnest during World War II with mainframe computers being developed as university

projects sponsored by the federal government (Banks, 2006). Mainframe computers were very expensive and were used primarily for business, research, and military purposes. Personal computers were introduced during the 1980s and the rapid expansion of chip technology transformed the computer revolution. The computer's application for education and training was especially important. For HRD professionals, it provided a new core technology through which training could be organized and administered, and the computer and computer programs themselves became the content of an increasing number of training programs. In insurance, education, and other service industries, computer-related expertise accounted for one of the largest performance needs addressed through training (Kelly, 1995).

OtherH RDI nfluences

Mandatory benefits became prevalent for the workforce after WWII as US employers were devising new methods to attract and retain employees due to the federal government's cap on wage increases (Anthony, Kacmar, & Perrewe, 2002). Clean air became a topic of nationwide interest in the United States during the 1950s, after WWII veterans returned home and began to rebuild their lives in California. The word "smog" came home with them describing conditions of the twenty-four hour burning at dump-sites and wrecking yards. The Federal Works Progress Administration, in 1938, had placed sampling stations around the United States measuring sulfur dioxide and dust fall, but the movement was spurred by the experiences of veterans in London during the war.

Conclusion

The World War II period was critical for the development of a formal HRD discipline. The human relations movement, spurred by the Hawthorne experiments and the works of Barnard (1938), Follett (1919), and Mayo (1945), provided a philosophical counterpoint to scientific management and introduced a humanistic philosophy to HRD practice. Likewise, the advent of the WWII establishment of the Training within Industry department set the groundwork for many of the practices of HRD that extend to the present. The large-scale entry of women into the workplace forever impacted how work was done.

7

1950s–1970s: The Rise of Organization Development

Organization development, which evolved from organization theory (Hinings & Greenwood, 2002; Weber, 1964), has been defined by many researchers (Cummings & Worley, 2005; Egan, 2002; McLagan, 1989; McLean & McLean, 2001; McLean, 2006), and involves the principles, processes, and performance within organizations. McLean (2006) broadly describes organization development as follows:

> Any process or activity, based on the behavioral sciences, that, either initially or over a long term, has the potential to develop in an organization setting enhanced knowledge, expertise, productivity, satisfaction, income, interpersonal relationships, and other desired outcomes, whether for interpersonal or group/team gain or for the benefit of an organization, community, region, or, ultimately, the whole of humanity. (p. 9)

HRD as a discipline finds itself in a quandary of identification and is housed in colleges of education, business, and human services among others, with each college potentially exploring the philosophy and practice of HRD in slightly different ways (Hughes & Gosney, 2012).

With the introduction of Dooley's advances in quality, training, and employee relations to the private sector, and with the research momentum from practitioners and thinkers such as Barnard (1938), Follett (1919), and Mayo (1945), the pieces were in place for the formal development of HRD as a discipline. As the postwar era dawned, Tannenbaum (1954) wrote:

> I see a new discipline of human relations emerging—a discipline which will ultimately integrate the social or behavioral sciences. It will bring to bear the theories, methods, and techniques of all the social sciences upon the study of interpersonal phenomena, including relations between

> persons and between groups, wherever these relations occur. This discipline will be a field of study focusing upon definable phenomena and yielding a body of knowledge relevant to human behavior. It will have its applied branch which will use knowledge emerging from basic research in the solution of particular problems for specified purposes. Associated with the later branch will be researchers, who will use existing knowledge to provide a systematic basis for later implementation, and practitioners, who will diagnose situations and take action which they deem appropriate in terms of objectives achieved. I would not hazard a guess as to how long it might take for this discipline to emerge full-blown, but the current trend in this direction is apparent and the ultimate outcome, in my judgment, inevitable. (p. 6)

A key element in the formation of HRD as a discipline was the growth of organization development (OD) as a component of HRD. Swanson and Holton (2001) note six significant developments during this time: (1) continued development of the human relations movement, (2) the establishment and growth of laboratory training, (3) the development and validation of survey research, (4) the development of action research, (5) the advancement of sociotechnical systems theory and its application in organizations, and (6) the increased emphasis on strategic change management.

It should be noted that there is some debate as to whether OD is a field unto itself or simply a subdiscipline of HRD. McLean (1996) weighed in on the issue by stating "it depends!" (p. 10). Per McLean, most professional organizations deem OD to be a subset of HRD, a notion supported by Anderson's (2011) definition of OD, which states, "Organization development is the process of increasing organizational effectiveness and facilitating personal and organizational change through the use of interventions driven by social and behavioral science knowledge" (p. 3). Given this definition, there is a clear alignment of purpose and method between OD and McLagan's (1989) aim of HRD to drive increased performance from individuals and organizations. While OD's emphasis on change management sets it apart from other HRD subdisciplines, its mission remains very much the same as HRD as a whole. Therefore, the development of OD is viewed as a critical element in the development of the overall discipline of HRD.

Organization Development and the Human Relations Movement

The human relations movement during this period continued to crystallize what would become the key assumptions of human behavior

that guides OD to this day (Swanson & Holton, 2001). These assumptions included the notion that self-direction and self-controlled work (Bandura, 1978; Manz, 1992; Nicholson, 1984) with the supervisor as coach and mentor, maximizes employee satisfaction. While building off of the traditions of Mayo (1945), Follett (1919), and Barnard (1945), the human relations movement modified its beliefs in the intervening decades to include the following summarized points (Knowles, 1958):

1. An absolute set of behavioral laws with predictive value was unreasonable (and indeed a mystical, subconscious, nonrational understanding of human behavior was a more reasonable position). Economic incentives bear significant weight in motivating human behavior.
2. A reevaluation of organization theory (with a more balanced emphasis on informal and formal organization) as a means of understanding and mitigating personnel and production issues.
3. The embrace of a more open systems approach to understanding the work environment, with political, social, and economic elements playing a role in the work environment.
4. Personality traits and values of individuals have a significant impact on overall group behavior.
5. A preference for democratic versus autocratic leadership style.
6. A rejection of manipulative tactics to modify behavior, replaced by an emphasis on leader personality.
7. The acknowledgment that not all employee issues can be boiled down to issues of communication, misunderstanding, or lack of information.

The concepts put forth in the human relations movement, with its emphasis on manager relationship as a key factor in employee engagement and productivity, continue to significantly inform HRD theory and practice (Cardus, 2013; Elliott & Turnbull, 2003; Harter, Schmidt, & Hayes, 2002; Shuck & Wollard, 2008), and is considered a core foundation.

LaboratoryT esting

Laboratory testing or training emerged post–World War II as another key means of conducting the work of HRD. Laboratory training, also known as the T-group (Benne, Bradford, & Lippitt, 1964; Campbell & Dunnette,

1968), was essentially group therapy sessions in which the following summarized elements could be found (Highhouse, 2002):

1. Groups were unstructured and were typically conducted off-site for a period of up to three to four weeks;
2. The topic of conversation for these groups was not explicitly stated, nor was any context or content provided to the group for discussion; and
3. The group was accompanied by a passive facilitator whose role was to encourage but not guide discussion.

Originally developed by noted thought leaders such as Kurt Lewin (1946, 1947, 1952), Kenneth Benne (1937), Leland Bradford (1964), and Ronald Lippitt (Lewin, Lippitt, & White, 1939) as an individual development tool, the T-group method was quickly adopted by corporate entities as a means of organizational problem solving (Swanson & Holton, 2001) and is considered to be a cornerstone for the development of OD as a practice (Burke, 1997). The development of communities of practice as a means of driving employee engagement, as documented by Chang and Jacobs (2012), is a current manifestation of the T-group methodology in today's HRD practice.

SurveyR esearch

The first survey was the census which has been conducted by governments since the beginning of human reproduction. Surveys have evolved to include many methods and techniques. However, attitudinal research is the method most closely associated and beneficial to the field of human resource development. Rensis Likert was and remains the foremost pioneer in attitudinal research (Edmondson, 2005). Likert noted the changing course of managerial theory from one based in scientific management to a theory more fully rooted in the human resource movement (namely the significant impact of attitudinal and motivational variables on behavior and performance) (1958). Likert thus developed the well-known Likert Scale to appropriately quantify and better understand these attitudinal and motivational variables. The idea was genius in its simplicity. For any given attitudinal construct, the subject was asked to rate their agreement on a given statement within a continuum ranging from strongly agree to strongly disagree. Numerical values were given to each possible choice, thus providing researchers the quantification necessary to statistically evaluate said variables (Likert, Roslow, & Murphy, 1932).

Likert's attitudinal research was based upon his overall theory of management, which was grounded in a systems orientation (Swanson & Holton, 2001). Likert held the firm belief that successful managers were both production-centered and employee-centered—what he termed participative group and eventually System 4 leadership (1979). With his systems approach and focus on effective leadership as partnership, it is little surprise that Likert cited Follett (1919) and Mayo (1945), among others, as key influencers of his own leadership philosophy. The impact of Likert's approach to survey research on HRD is almost too large to quantify. Suffice it to say, as a research methodology, Likert's modality is ubiquitous in HRD (Chiaburu, Huang, & Hutchins, 2014; Gill, Duggar III, & Norton, 2014; Singh, 2014).

Action Research and Sociotechnical Systems Theory

Systems theory has its roots in Aristotelian teleology. The 1950s and 1960s marked the reintroduction of teleology as a viable alternative to positivistic modalities (Howard, 1990). It rose to prominence during the 1950s largely through the efforts of Ludwig von Bertalanffy (1969), a Canadian biologist and philosopher who noted that "the mechanistic scheme of isolable causal trains and meristic treatment had proved insufficient to deal with theoretical problems, especially in the biosocial sciences, and with the practical problems posed by modern technology" (p. 11–12). In 1954, von Bertalanffy assisted in founding the Society for General Systems Research. Its charter, given the content presented thus far in this chapter, is enlightening:

> The Society for General Systems Research was organized in 1954 to further the development of theoretical systems which are applicable to more than one of the traditional departments of knowledge. Major functions are to: (1) investigate the isomorphy of concepts, laws, and models in various fields, and to help in useful transfers from one field to another; (2) encourage the development of adequate theoretical models in the fields which lack them; (3) minimize the duplication of theoretical effort in different fields; (4) promote the unity of science through improving communication among specialists. (von Bertalanffy, 1969, p. 15)

General systems theory, true to the society's original mission, would become a key component of HRD theory and practice (Swanson, 2001).

The next two developments in OD during the 1950s–1970s was the growth of action research (or action learning) and sociotechnical systems theory. The two share much of the same root, and thus it is appropriate

to review both together. Action research was developed by social scientists such as John Collier (1945), Kurt Lewin (1946), and William Foote Whyte (1991) soon after World War II (Swanson & Holton, 2001). Lewin described the action research process in four steps: (1) an organizational problem to solve was identified and (2) a plan developed to address that problem; (3) the plan was then executed; and (4) immediately followed by reconnaissance to determine the effectiveness of the plan and potential improvements that could be made. There proceeds, "a spiral of steps each of which is composed of a circle of planning, action, and fact-finding about the results of the action" (Lewin, 1946, p. 38).

Two elements make action research particularly unique. First, "the results generated by the research are used to influence the situation which is being researched, [and second,] [t]he action-researcher monitors the change brought about by his intervention in the research situation" (Burgoyne, 1973, p. 8). The embedded nature of the researcher in relation to the problem is at the heart of action research and provides much of the inherent benefit. The researcher, as Burgoyne (1973) notes, is "essentially carrying out two studies…one…in which he observes, and uses his observations to influence the situation, and…a second…to assess the consequences of the change brought about in this way" (p. 9). Put another way, in action research, "the scientist and trainer…are part of the field to be examined, the problem, and the experimental solution" (Gardner, 1974, p. 107).

Action research was, in fact, the methodological extension of sociotechnical systems theory developed at the Tavistock Institute by scholars such as Trist and Bamforth (1951), heavily influenced by Scandinavian psychologist Einar Thorsrud (Brydon-Miller, Greenwood, & Macguire, 2003; Greenwood & Levin, 2006). Sociotechnical systems theory was an approach to understanding organizations as closed systems in which the individual was seen as inextricably linked to the technological arena in which he or she operated. Like other branches of systems theory, it traced its philosophical roots to the final causality of Aristotle (Ropohl, 1999). A landmark application of this theory in the business sector was the work done by Trist and Bamforth (1951) in the coal industry.

Trist and Bamforth (1951) closely examined both the technological system that existed for the worker, as well as the social structure supporting that technological system. Their findings revealed that both factors, the social and the technical, synergistically impacted the individual. What is more, change could be impacted (and productivity improved) by effecting the system and not simply the individual. Enacting organizational change, first through the application of sociotechnical systems theory and eventually through other theoretical approaches, became a key component of HRD as a discipline (Bennis, 1963).

Change Management and Organization Development

Bennis's call for HRD's entry into change management (1963), echoed by others in management science (Churchman, 1964), coincided with the development and implementation of Kurt Lewin's (1947) change theory. Lewin proposed that change was fundamentally a process of overcoming a group's inherent inertia, a condition he called quasi-stationary equilibrium. He suggested that change was a function of increasing or decreasing events that were already occurring in a system. Therefore, to enact change, he proposed a three-phase process of unfreezing the existing state, moving to the new state, and refreezing the new state. Moving was achieved by either reducing the forces that inhibited change or increasing the forces that encouraged change (Lewin, 1952).

A hallmark validation of Lewin's (1947) change theory occurred via the work of Zand and Sorensen (1975). As management scientists, they were keenly interested in the quantitative evaluation of management technique, and thus submitted Lewin's theory for validation through empirical research. In examining numerous change efforts, Zand and Sorensen found that "levels of success . . . was positively correlated with favorable forces and negatively correlated with unfavorable forces in each phase of change" (p. 541). Lewin's theory of change, thus validated and accepted, became the springboard for other change theories eventually postulated by theorists such as Kotter (1995) and Senge (1990) (Buchanan, Ketley, Gollop, Jones, Lamont, Neath, & Whitby, 2003).

Conclusion

The 30-year period spanning the 1950s through the 1970s was a fruitful time for the nascent field of HRD, and particularly the subdiscipline of OD. OD emerged and has remained an essential component of HRD as organizations seek to leverage their competitive advantages through employees. The development of the organization itself cannot occur without the development of its people. All of the developments explained in this chapter were critical to and provided benefits for the development of employees within organizations and remains so today. According to Hughes and Byrd (in press)

> Employee engagement is also necessary to further critical thinking, inspire a willingness to accept change and collaborate with others, building interpersonal relationship skills, and teamwork. It is also central to achieving goals when introducing new technology and developing future managers

and leaders within the organization. Employees must feel engaged if there is a desire from organization leaders for some employees to assume management responsibility.

Employees must be engaged for organizations to benefit from the diversity of knowledge, skills, and abilities (KSA) that each individual brings to the workplace. Valuing the uniqueness of each individual will allow organization development professionals to integrate them into the organization's initiatives (Hughes 2010; 2012).

The development of lab testing during and post-WWII provided an organizational intervention model that became a key construct in the practice of OD. Likert's (1947) development of survey research also brought empirical legitimacy to the discipline, while still maintaining values rooted in the human relations movement. Action research as a methodology and sociotechnical systems theory as a model were introduced and validated. Lewin's (1952) change theory answered the call of the private sector for behavioral science to engage in a fundamental and profound manner—thus proving Tannenbaum's (1954) prediction of the creation of HRD as a discipline truly prophetic. The predominant philosophy of the time—a blend of humanism and structuralism via systems theory—was clearly evident.

8

HRD in the Modern Era

One of the challenges of evaluating the modern era of HRD is that it is still ongoing. History, like high school relationships, is usually best judged with the perspective of longitudinal distance. The challenge is made all the more difficult when considering modern HRD in a similar manner to other eras contained in this text. While the pattern of interplay between philosophy, theory, and practice is more or less evident in previous eras, our own biases tend to interfere with our ability to "step out" of ourselves and evaluate our own philosophical assumptions. Because, that is what a consideration of the modern era requires. By reading this book you may have some role in the modern expression of HRD as a discipline, be it as a practitioner or theorist. If Gosney's model of modern era theory and practice generation in HRD, proposed in chapter 1, holds true, then we are bound to our own current historical context.

Nevertheless, an evaluation is still worthwhile and profitable. While we cannot escape our current historical context, we can embrace and bring to the foreground the philosophies (and philosophical assumptions) that undergird our current theory and practice. This chapter is broken into two main sections. The first section is a review of the emergence of HRD as a formal discipline and a consideration of two methodological philosophies that influence its current theory and practice. The second section is a review of the influence of specific schools of thought in psychology on HRD theory and practice, as well as a teasing out of the philosophical assumptions various branches of psychology hold.

HRD in the Modern Era: The Formalization of a Discipline

As a new millennium approached, effective change management became the defining aspect of and primary purpose for HRD. Nadler's (1970) definition of HRD clearly asserted this focus on change when he stated that

"HRD means (1) a series of organized activities, (2) conducted within a specified time and (3) designed to produce behavioral change" (p. 3). While all change does not fall under the purview of HRD, certain organizational change was deemed largely dependent upon that organization's human resources and their ability to execute strategy and learn as that strategy was implemented (Beer & Nohira, 2001). As HRD progressed as a discipline, greater focus on this fundamental effort to support behavioral change and organizational change became apparent. This was accomplished through the formal establishment of the HRD professional, guided primarily through the American Society for Training and Development (ASTD) (DeSimone & Werner, 2012). Although the ASTD was founded in the 1940s, by the 1980s it had already established itself as a key supporter of HRD primarily from a practitioner's perspective (Miller, 2008). Now known as the Association for Training and Development (ATD), it is the largest professional organization for HRD practitioners (McLean & Akdere, 2015).

The first challenge for HRD as a profession was to define who were, in fact, HRD practitioners. Hansen (1980) defined the HRD practitioner as falling into one of seven categories:

1. Members of professional training associations (such as ASTD)
2. Members of organizations with historical interest in HRD (such as the American Society of Public Administration)
3. Members of human resource environment (or organizational development) associations such as the OD Network
4. Adult education professionals
5. Public remedial employment training professionals
6. Vocational and technical education professionals
7. Members of educational technology professional organizations. (pp. 6–7)

Hansen (1984) later reinforced these same seven categories and included a definition of the HRD practitioner as follows:

> Those persons who are primarily engaged in attracting to the workplace and fostering human resources, providing for their training, education and development in the workplace or within organizations ancillary thereto, and facilitating the management and utilization of these resources in such a way that both their goals and the goals of the organization are achieved to the maximum extent possible. (p. 72)

Along with defining what an HRD practitioner was, the discipline also was in search of defining the scope of the HRD professional's

responsibility. Within the larger discipline of human resource management, a clear delineation of roles and responsibilities was necessary. In 1989, ASTD sponsored a groundbreaking study to clearly and empirically identify HRD roles and competencies (DeSimone & Werner, 2012). Conducted by Pat McLagan, the results of that research—"Models for HRD Practice" (1989)—identified three key HRD functions: training and development, organization development, and career development. Table 8.1 outlines the key elements of McLagan's (1989) model.

The training and development role of HRD continued to receive significant attention. Carkhuff's (2000) HRD model focused on giving learning professionals the skills they required to positively enact change through the classroom environment, thus maximizing output while minimizing resources (Aspy, 1986). Carkhuff's (2000) *The Art of Helping* focuses on many such skills; for example, attending, responding, and personalizing are identified as key skills of the adept facilitator.

ASTD once again sponsored research, this time in 2004, to reexamine the function and competency of the HRD professional. A revised learning and performance wheel was thus produced (Davis, Naughton, & Rothwell, 2004), a summary of which can be seen in table 8.2. A comparison of these two figures illustrates the growth and development of the discipline during this time. While HRD's focus should not be considered narrow, as represented by McLagan's (1989) research, one quickly notes greater variation in the discipline as specialties such as instructional design and facilitation become more clearly delineated in Davis, Naughton, & Rothwell's revised approach.

Table8 .1 Competencies in HRD: 1989

Category	*Competency*	*Results*
HRD	Training & development	
	Organization development	
	Career development	
HRD-related	Organization/job design	Productivity
	Human resource planning	Quality
	Performance management systems	Innovation
	Selection & staffing	HR fulfillment
HR	HR research & information systems	Readiness for change
	Union labor relations	
	Employee assistance	
	Compensation/benefits	

Note: Adapted from "Models for HRD Practice," by M. A. McLagan, 1989, Training and Development Journal, 43, p. 53.

Table8 .2 Competencies in HRD: 2004

Category	*Competency*	*Universal foci & enablers*
Traditional HR disciplines	Selection, staffing & job design	
	Compensation & benefits	
	Information systems	
	Labor & employee relations	
	Rewards & recognition	
Other organizational disciplines	Research & development	
	Customer services	
	Distribution	
	Finance	
	Legal	
	Operations/production	
	Marketing & public relations	Business strategy Supported by technology
	Sales	
Workplace learning & performance disciplines	Measuring & evaluating	
	Managing organizational knowledge	
	Improving human performance	
	Facilitating organizational change	
	Career planning & talent management	
	Coaching	
	Designing learning	
	Delivering training	

Note: Adapted from "New Roles and New Competencies for the Profession," by P. Davis, J. Naughton, & W. Rothwell, 2004, *Training and Development Journal*, 58, p. 35.

Another inference drawn from the new wheel was the need for HRD's alignment with business strategy, and full capacity to leverage technology. Implied in the placement of strategy at the core of the learning and performance wheel is the seating of HRD as a corporate, business function. The primary aim of the discipline is to achieve the primary aims of the organization and, in fact, HRD is considered an essential element of organizational function(Torraco & Swanson, 1995; Kochan & Dyer, 1993). Finally, the explicit mention of areas of expertise such as managing organizational knowledge and facilitating organizational change underscore the continued and more pronounced influence of systems theory in modern-day HRD (Senge, 1993).

Additional evidence of the influence of systems theory in the present can be seen in a review of the competencies identified for HRD practitioners. In Davis, Naughton, & Rothwell's (2004) research, HRD competency could be categorized into one of three categories; interpersonal, business/management, and personal. In 2013, ASTD revised the competency model yet again, and the changes were informative (Arneson, Rothwell, & Naughton, 2013). For example, foundational competencies for the HRD professional still include business, personal, and interpersonal skills. These skills have been joined by technology literacy, global mindset, and industry knowledge. Echoes of the sociotechnical systems theory espoused by Lewin (1952) and others can be seen as the HRD profession moved to embrace a broader, balanced, and more interrelated skill set on the part of its practitioners.

While ASTD operated primarily from a practitioner perspective, the Academy of Human Resource Development was founded in 1993 to promote a research agenda (Russ-Eft, Short, & Jacobs, 2014) and was made up almost exclusively of members of the academic community. Russ-Eft, Short, & Jacobs (2014) note the mission of the academy: "encouraging systematic study of HRD theories, processes, and practices; disseminating information about HRD; encouraging the application of HRD findings, and providing opportunities for social interaction for scholars and scholar practitioners" (p. 68). Even from the academic arena, the importance of application of theory is apparent. As the previous century ended and a new one emerged, there existed a steady call for HRD to frame itself as an applied discipline, and that theory ought to be judged largely by its practical utility (Keefer & Yap, 2007; Swanson, 1995; Torraco, 2004).

The Philosophy of Today's HRD: Axiology

Pinning down the philosophy of the modern era is challenging. Decades ago, Lawrie (1986) called for the HRD discipline to establish a written philosophy. Gilley, Eggland, and Gilley (2002) echoed Lawrie's statement, listing a defined HRD philosophy as a necessary component for the creation of a strategic HRD function. Ruona and Lynham (2004) once again emphasized the critical importance of HRD articulating a philosophy, and added to the dialogue by evaluating philosophy in terms of its ontology, epistemology, and axiology. Of the three components of philosophy articulated by Ruona and Lynham, axiology (methodology) is perhaps the most clearly articulated aspect of philosophy in HRD today. It is from that perspective, then, that we shall attempt to piece together a larger picture of current HRD philosophy.

Pluralism

From its roots in ancient Greece, through the Industrial Revolution and establishment of scientific management, to the dawn of the human relations movement and the emergence of systems theory, two distinct methodologies have come to the forefront: quantitative (Trochim & Donnelly, 2008) and qualitative (Creswell, 2007; Shank, 2006) methodology. Both methodologies carry with them significant assumptions. In the case of quantitative methodology, Slife and Gantt (1999) note the assumptions of empiricism: quantification (phenomena can be measured), universalism (if a phenomenon occurs once, it will occur again given the same conditions) and naturalism (the purpose of research is the identification of natural law). In the case of qualitative methodology, there is an assumption of lived experience (versus observed experience) as the source of knowledge (Slife & Gantt, 1999), ordinary language and a hermeneutic approach to evaluation (Ezzy, 2013), contextualism (versus universality) and meaning (Slife & Gantt, 1999).

The tension between these two points of view was eased through the embrace of what was termed a mixed methods approach to research (Howard, 1983). Researchers determined that certain research questions were best suited to differing methodologies, or that a more complete picture of the phenomena was achieved by the convergence of results from differing methodologies (Davis, 2009; Slife & Gant, 1999). The aim became holism—a fuller understanding of a phenomenon achieved through multiple research perspectives (Morse & Chung, 2003). Midgley (1992) argued that pluralism was a necessary condition for the continued legitimization of systems theory. Slife and Williams (1995) embraced such methodological pluralism but warned of its inherent danger in stating that "this position makes it all the more important that behavioral scientists are aware of their theoretical assumptions, for their assumptions influence their view of the world and their decisions about what method of study seems most appropriate" (p. 201).

Slife and Gantt (1999) express the larger goal of methodological pluralism in stating that it encompasses "the diversity of methodological *philosophies* as well" (p. 1453). Implicit in such a description, and consistent with the warning given by Slife and Williams (1995), is that such philosophies be clearly stated and their assumptions revealed. Peters (2012) suggests that, instead of continuing the evaluation of said assumptions, the sciences embrace pluralism as a means of avoiding the difficult discussion altogether. He states,

> We could argue that such is a sign of healthy diversity or even of Lyotard's "postmodern condition," in which the old legitimizations no longer hold.

> It could also be a sign of relaxed disciplinary maturity. Whitehead quipped that the last thing to be fixed in a science is its foundations. Many academic fields today, in fact, seem happy to defer indefinitely all efforts at fixing—in any sense of this punful term. No one takes the soul seriously in psychology, nor is biology paralyzed by failure to have reached a satisfactory definition of "life." Nor do all the philosophers seek "wisdom." Perhaps *kenosis* of its central term is the sign of a mature field. (p. 505)

As it entered the modern era, HRD embraced methodological plurality as it sought to understand the phenomena of its domain. As HRD theoreticians did so, however, there appeared an evident lack of consideration for the theoretical assumptions upon which the various methodologies rested. Kiessling and Harvey (2005) advocated a mixed method approach as critical response to globalization, with no accompanying discussion of the assumptions of those mixed methods. Rocco, Bliss, Gallagher, and Pèrez-Prado (2003) do note that philosophical differences exist between methods; however, no discussion of what those differences are or how they might impact method selection is given. Finally, Reio (2009) calls on all of HRD to embrace methodological plurality without discussion of the philosophical implications of various methodologies. From the 1980s to the present, HRD fell into the trap that Slife and Williams (1995) warned of and Peters (2012) lamented.

Pragmatism and Eclecticism

Closely related but distinct to methodological pluralism is the philosophy of pragmatism and eclecticism. Eclecticism is the philosophic notion of drawing ideas from a far range of sources (Whipple, 2013). Like an avant-garde fusion chef, the eclectic philosopher pulls concepts from various existing philosophies and melds them into a new whole. In HRD, such eclecticism is not without purpose. It is instead a truer representation of pragmatism—a distinctly American philosophy with one central tenet: hypotheses are clarified through their practical consequences (Hookway, 2015). Any parent of a toddler has likely embraced a bit of pragmatic philosophy. When considering potty-training techniques, the eating of vegetables, or abiding by bedtime, one is liable to choose the methodology that results in "whatever works."

Some in HRD have readily embraced the pragmatic approach—particularly practitioners (Bell, 1977). Brookfield (2001) called for the incorporation of pragmatism in adult learning theory. In proposing the development of a subfield of critical HRD, Fenwick (2004) recognizes the challenges of reconciling various philosophies and proposes pragmatism

as an appropriate antidote. Fenwick's position has been supported by others (Jayanti, 2011). On its surface, eclecticism and pragmatism appear to be a magic bullet. If you do not like a philosophical assumption, pick something else! Pragmatism and eclecticism imply a buffet approach to philosophy that attempts to eschew undesirable assumptive consequences.

Slife & Williams (1995) note that eclecticism is, in fact, a theory in and of itself; the theory that adopting multiple theories given a set of criteria is a preferable course of action. Such a position, like any other theory, has in it inherent strengths and weaknesses. For example, it may be tempting for the HRD practitioner to adopt portions of theories that are, of their very nature, completely contradictory. Far from being beneficial, in the end, it is damaging. Slife & Williams (1995) explain:

> An eclectic theorist often attempts to stand apart from, or outside, all the various theories and remain uncommitted to any. However, in borrowing from the theories and accepting their explanations of some behaviors, the eclectic theorist is actually standing inside the theories—all at the same time. To be outside the theories, the eclectic would need to accept none of them, but in accepting parts of any or all of them, the eclectic behavioral scientist is drawn into them . . . by accepting part of a theory, we also accept all of the assumptions and implications that a theory brings with it . . . In trying to avoid some of the mistakes of any one theoretical perspective might bring with it, the eclectic opens him- or herself to the mistakes of all of them at the same time. (p. 47–48)

Despite potential attempts to the contrary, embracing a pragmatic and eclectic philosophy still embraces a philosophy. Quoting Jaspers's (1951) earlier comments again, "there is no escape from philosophy. The question is only whether a philosophy is conscious or not, whether it is good or bad, muddled or clear. Anyone who rejects philosophy is himself unconsciously practicing a philosophy" (p. 12).

This latest period of review, from the 1980s to the modern era of HRD, has brought about the formalization of the discipline—including a more clearly defined scope of work and objectives. The role of the HRD professional was defined and the various subroles identified. Competencies for these professionals were developed and revised, and the influence of systems theory in understanding the role and method of the HRD professional came into clearer focus. Finally, an embrace of methodological pluralism, pragmatism, and eclecticism perhaps at the cost of more dutiful attention to informing philosophy, became the assumed philosophy of the time.

Psychological Theory and HRD

It is clearly recognized that a distinct link exists between HRD and psychology (Carkhuff, 1972). From Piaget's (Piaget & Kamii, 1978) influence in the Hawthorne experiments (Hseuh, 2002) to the recent emergence of executive coaching as a type of therapy (Berglas, 2002), psychology has played a key role in helping to define and inform HRD practice. HRD has looked to psychology for grounded approaches to solve problems similar to those faced in the clinical arena. For example, Hirschhorn and Gilmore (1980) turned to family therapy as a way to positively impact organizations. Others have pushed back on certain psychological schools of thought; for example some consider Rogerian humanism (Rogers, 1951) as untenable in the HRD domain (McGuire, Cross, & O'Donnell, 2005).

As referenced previously, Swanson (1999) argues for a three-legged approach to examination of HRD theory—those three legs being psychological, systems, and economic theory. Others have leveraged existing theories of psychology specifically against the challenges of improving HRD-related functions of training, development, and performance improvement (Kraiger, Passmore, Rebelo dos Santos, & Malvezzi, 2014). The following section of this chapter outlines the key psychological theories that most significantly inform (or informed) HRD as well as the philosophical assumptions upon which those theories rest. The review will include a discussion of psychodynamic theory, behavioral/cognitive theory, humanistic theory, and structuralist theory. It also includes an examination of the link between specific psychological theories and the practice of HRD today.

PsychodynamicT heory

Made popular by Sigmund Freud (1957), psychodynamic theory is one of the bedrocks and most influential theories in all of psychology (Arlow, 2000) and Freud, the first great personality theorist (Slife, 1993). As the name implies, psychodynamic theory suggests that individuals experience the world through the interplay of competing mental forces. At times these forces act in unison, at times in conflict, but always at a level below the awareness of the individual (Slife & Williams, 1995). The ideal human state, then, is a sort of homeostasis in which these competing forces are satisfied and internal conflict is avoided.

Arlow cites several key concepts that are critical in understanding psychodynamic theory. The first is that of determinism. In relation to

psychoanalysis, determinism suggests that "all psychological events are causally related to each other and to the individual's past. In short, the elements that occur in consciousness are not random and unrelated" (Arlow, 2000, p. 16). In the psychodynamic tradition, then, past events are crucial in understanding current behavior. Per psychodynamic theory, key stages of development occur from birth to age six. Events during this developmental period influence and shape psychodynamic forces that then determine later personality and behavior.

It is worth noting that this concept of determinism is not wholly in keeping with Freud's own view of psychodynamic theory. Freud (1957) stated:

> Just as Kant warned us not to overlook the fact that our perceptions are subjectively conditioned and must not be regarded as identical with what is perceived though unknowable so psychoanalysis warns us not to equate perceptions by means of consciousness with the unconscious mental processes which are their object. Like the physical, the psychical is not necessarily in reality what it appears to be. (p. 171)

Freud's reference to Kant's philosophy of reality, separate and apart from perceived reality, is a stark contrast from pure determinism. However, as practiced today, a key assumption of psychodynamic theory is the unassailable influence of past events on current behavior (Arlow, 2000).

The next key tenet of psychodynamic theory is the notion of topography. Psychodynamic theory contends that the mind can be divided into three regions: the conscious, preconscious, and unconscious (Freud, 1958). Describing this concept of topography, Bornstein (2003) stated:

> Whereas the conscious part of the mind was thought to hold only information that demanded attention and action at the moment, the preconscious contained material that was capable of becoming conscious but was not because attention (in the form of psychic energy) was not invested in it at that time. The unconscious contained anxiety-producing material (e.g., sexual impulses, aggressive wishes) that were deliberately repressed (i.e., held outside of awareness as a form of self-protection). Because of the affect-laden nature of unconscious material, the unconscious was (and is) thought to play a more central role in personality than are the other two elements of Freud's topographic model. (p. 119)

The third key tenet of psychodynamic theory is the fundamental idea of a dynamic relationship between competing elements of the individual's psyche (Arlow, 2000), and suggests a structural approach to understanding personality. Psychodynamic theory contends that all

individuals possess libidinal and aggressive drives (or instincts/impulses) that generate from the unconscious mind. Most students of psychology are familiar with the id label Freud (1958) assigned to such impulses. These impulses exist from birth and are hardwired into each individual. By age two, the ego develops as a means of coping with imperfect parenting strategies. The ego becomes the conscious self, governing what is and is not acceptable behavior. Finally, the superego develops by age five. This structure, also part of the individual's unconscious, is developed when the individual can internalize abstract rules placed upon him/her by society and parents. It becomes the moral voice of the individual (Bornstein, 2003).

The final component of psychodynamic theory is what is termed the genetic viewpoint (Arlow, 2000). In the psychodynamic sense, the genetic (or psychosexual) point of view suggests that the basis of conflicts, character traits, and neurotic symptoms all share a common genesis in the events and fantasies of early childhood. Freud (1958) hypothesized numerous psychosexual stages (oral, anal, oedipal, latency, and puberty) with key developmental milestones in each. Should these developmental milestones be hindered in some way, an individual would become fixated at that stage and display consistent abnormal behavior patterns in adulthood (Bornstein, 2003).

While Freud (1957, 1958) contributed much of the founding thought to psychodynamic theory, others have added to or modified the theory over time. Jung (1959) hypothesized that personality is crafted through the influence of spiritual forces and universal human archetypes, while also giving primacy to past events. Adler (1927) contended that the primary dynamic force on personality was birth order, thus providing a different structural approach to psychodynamic theory. Fromm (1944) suggested the importance of prevailing social and political forces on the individual, and authoritarianism as a significant concept in the development of personality (Bornstein, 2003). While all diverge in some form or fashion from Freud's (1957, 1958) original theory, each maintain many of the same core assumptions of determinism and structuralism.

Finally, psychodynamic theory's influence on HRD is plainly evident, perhaps most notably in the development and use of the Myers-Briggs Typology Indicator (MBTI.) Designed as a means of identifying Jung's(1959) typologies (introvert/extrovert, sensing/intuition, etc.) in individuals (Carlyn, 1977; Richek & Bown, 1968), the MBTI has been embraced by HRD practitioners as a means of building more effective team/manager relationships (Berr, Church, & Waclawski, 2000). It has also been erroneously used as a selection, assessment, and job-fit tool (Coe, 1992).

The MBTI is an example of the psychodynamic theory of personality influencing HRD practice; however, other such examples exist. Some executive coaching models are couched in the techniques of psychoanalytic therapy (Arnaud, 2003; Watts, 2012). Others have undertaken leadership theory building from the foundation of psychodynamic concepts such as Fromm's authoritarianism (Schruijer & Vansina, 2002). Models of organizational learning are based upon psychodynamic principles (Vince, 2001). Psychodynamic theory has also been the basis for the development of selection assessments; for example Martin and Boye (1998) developed an assessment rooted in psychodynamic theory to ascertain a candidate's intent to stay at an organization. The threads of psychodynamic theory and practice are distinct in the theory and practice of today's HRD.

Behaviorism and Cognitive Theory

Behaviorism and, particularly, cognitive theory are perhaps the most influential psychological theories in modern academia (Slife & Williams, 1995). Behaviorism can best be described by the simple idea that "behavior is a function of its consequences" (Wilson, 2000, p. 206). In other words, behavior is the result of previous experiences we have had in exhibiting said behavior. We repeat behavior for which we are reinforced, and avoid behavior for which we are punished (Skinner, 1948). This is the major crux of behaviorism: that all behavior can be boiled down to a concrete set of perfectly predictable laws that govern all action. Wilson (2000) makes this point abundantly clear when describing the differences between psychoanalytic and behavioral therapy:

> Behavior therapy involves a commitment to the scientific approach. This includes an explicit, testable, conceptual framework; treatment derived from or at least consistent with the content and method of experimental-clinical psychology; therapeutic techniques that have measurable outcomes and can be replicated; the experimental evaluation of treatment methods and concepts; and the emphasis on innovative research strategies that allow rigorous evaluation of specific methods applied to particular problems instead of global assessment of ill-defined procedures applied to heterogeneous problems. (p. 207)

In aligning itself wholly and unwaveringly with the scientific method (see chapters 4 and 5 for a fuller description of the impact of the scientific method on HRD), behaviorism and cognitive theory both place themselves fully in the camp (along with scientific management) of empirical, positivist, deterministic philosophy (Slife & Williams, 1995). Behaviorism

embraces the biologizing of human behavior, where all behavior can be traced to a biological process. As Slife, Burchfield & Hedges (2010) note, the reductive nature of understanding human behavior in this manner views biology as both sufficient and necessary.

Radical behaviorism and cognitive theory are, in reality, two ends of a behavioral spectrum (Wilson, 2000). The challenge of behaviorism as presented by Skinner is that it leaves no room for understanding of mental process—that is, not just understanding that something occurred, but also why it occurred. Second generation behavioralists such as Tolman (1938) and Hull (1943) suggested that some mental processing was indeed occurring between the application of the stimulus and the organism's response (Staats, 2003). While radical behaviorists rejected such a notion, the idea that cognitive processes existed or could be understood opened the door for cognitive theory and the notion that "covert processes follow the laws of learning that govern overt behaviors" (Wilson, 2000, p. 206).

Cognitive theory also borrows from the structuralist understanding of the mind first espoused in psychodynamic theory, and illustrates the primary difference between behaviorism and cognitive theory. As Slife and Williams (1995) note:

> For behaviorism, human beings are *black boxes*—that is, what happens inside the mind is of little importance in predicting and understanding human behavior . . . Cognitive theorists . . . attempt to open up the black box and examine what goes on within the mind, believing it is important in understanding how we behave. (p. 39)

This idea of the mind as a black box to be understood and explored is a fundamental difference and suggests the structuralist approach. The nature of the structures and how they generate are, of course, the foundation of various cognitive theories. For example, Bandura's (1974) social learning theory is rooted in cognitive theory in that the mind is wired for social interaction. However, it is critical to note that cognitive theory and behaviorism share all of the same core assumptions of behaviorism, that is, positivism, empiricism, and determinism (Slife & Williams, 1995) as well as the embrace of biological solutions to theoretical questions (Slife, Burchfield, & Hedges, 2010).

Behaviorism and cognitive theory have both played key roles in informing HRD practice. Recall the previous discussion in this chapter of scientific management. This method of management can easily be seen as the natural business application of the radical behaviorism that was *en vogue* in academia at the time. Application of such principles during the heyday of scientific management, and, later, of management by objectives, can

be seen in the idea of goal setting and task/bonus methods of employee management (Locke, 1978). This production-centered approach became a mainstay mode of operation in HRD. In this paradigm, workers understand their responsibility and, when properly conditioned, can be counted upon to act accordingly (Kuchinke, 1999).

Behaviorism and particularly cognitive theory perhaps have had the most impact in HRD in the area of adult learning and instructional design (DeSimone & Werner, 2012; Hughes, 2012). For example, cognitive theory informed researchers looking to improve the effectiveness of self-directed learning in the organization (Kohns & Ponton, 2006). Robert Gagné, considered a pioneer of HRD in the arena of adult learning and instruction (Academy of Human Resource Development, 2013), developed an adult learning model firmly rooted in cognitive theory. Gagné and Dick (1983) describe the theoretical influences of the learning model as follows:

> Prominent among these processes are attention, selective (feature) perception, short-term memory, rehearsal, long-term memory storage, and retrieval. Externally, reinforcement via informative feedback is also assumed… From these processes are derived both the internal and external events which make possible effective learning and retention. (pp. 265–266)

It is this focus on the empirically testable internal and external effectors of learning that ties Gagné's theory to cognitive theory. Much of what is taught in instructional design today rests upon Gagné's theory (Gagné and Dick 1983; Wilson, Jonassen, & Cole, 1993), and thus on cognitive theory and its inherent assumptions.

Humanism

In reviewing chapters 3, 4, and 6 of this text, one has unquestionably noted the recurring appearance of humanism as a philosophical concept. When the concept of humanism as a philosophy was reintroduced at the turn of the twentieth century, its definition was clearly far afield from the concept and philosophy understood today (Schiller, 1903). Schiller described humanism as a philosophical outreach of what he termed common sense. It consisted of a rejection of a priori philosophies that inferred a prewiring of human beings, instead focusing upon the experience of human beings as the genesis of their behavior and potential. That this philosophy sounds more akin to the radical empiricism outlined earlier is no surprise or accident, as Schiller was a contemporary of William James and, in fact,

dedicated his text on humanism to James. William James is considered the father of pragmatism and radical empiricism (Pancheri, 1971).

Schiller's definition of humanism did not prove enduring, and the term was re-purposed in the middle of the century, most notably by Carl Rogers and Abraham Maslow (Slife & Williams, 1995). Rogers (1951) was particularly influential in the development of a person-centered psychology and therapeutic methodology. Rogers outlines nineteen key components of humanism, which provide key insights into the fundamental assumptions of the philosophy as well as its differentiation with theories such as empiricism. Rogers outlines the propositions as follows:

1. Every individual exists in a continually changing world of experience of which he or she is the center.
2. The organism reacts to the field as it is experienced and perceived. This perceptual field is, for the individual, "reality."
3. The organism reacts as an organized whole to this phenomenal field.
4. The organism has one basic tendency and striving—to actualize, maintain, and enhance its experiences.
5. Behavior is basically the goal-directed attempt of the organism to satisfy its needs as experienced, in the field as perceived.
6. Emotion accompanies and in general facilitates such goal-directed behavior, the kind of emotion being related to the seeking versus the consummatory aspects of the behavior, and the intensity of the emotion being related to the perceived significance of the behavior for the maintenance and enhancement of the organism.
7. The best vantage point for understanding behavior is from the internal frame of reference of the individual.
8. A portion of the total perceptual field gradually becomes differentiated as the self.
9. As a result of interaction with the environment, and particularly as a result of evaluational interaction with others, the structure of self is formed—an organized, fluid, but consistent conceptual pattern of perceptions of characteristics and relationships of the "I" or the "me," together with values attached to these concepts.
10. The values attached to experiences, and the values which are a part of the self structure, in some instances are values experienced directly by the organism, and in some instances are values introjected or taken over from others, but perceived in distorted fashion, as if they had been experienced directly.
11. As experiences occur in the life of the individual, they are either (a) symbolized, perceived, and organized into some relationship

to the self, (b) ignored because there is no perceived relationship to the self-structure, or (c) denied symbolization or given a distorted symbolization because the experience is inconsistent with the structure of the self.

12. Most of the ways of behaving which are adopted by the organism are those which are consistent with the concept of self.
13. Behavior may, in some instances, be brought about by organic experiences and needs which have not been symbolized. Such behavior may be inconsistent with the structure of the self, but in such instances the behavior is not "owned" by the individual.
14. Psychological maladjustment exists when the organism denies to awareness significant sensory and visceral experiences, which consequently are not symbolized and organized into the gestalt of the self-structure. When this situation exists, there is a basis for potential psychological tension.
15. Psychological adjustment exists when the concept of the self is such that all the sensory and visceral experiences of the organism are, or may be, assimilated on a symbolic level into a consistent relationship with the concept of self.
16. Any experience which is inconsistent with the organization or structure of self may be perceived as a threat, and the more of these perceptions there are, the more rigidly the self-structure is organized to maintain itself.
17. Under certain conditions, involving primarily complete absence of any threat to the self-structure, experiences which are inconsistent with it may be perceived and examined, and the structure of self revised to assimilate and include such experiences.
18. When the individual perceives and accepts into one consistent and integrated system all his sensory and visceral experiences, then he is necessarily more understanding of others and is more accepting of others as separate individuals.
19. As the individual perceives and accepts into his self-structure more of his organic experiences, he finds that he is replacing his present value system—based so largely upon introjections which have been distortedly symbolized—with a continuing orgasnismic valuing process. (pp. 481–533)

Rogers (1951) summarizes the philosophy of humanism by stating:

> This theory is basically phenomenological in character, and relies heavily upon the concept of the self as an explanatory construct. It pictures the end-point of personality development as being a basic congruence between

> the phenomenal field of experience and the conceptual structure of the self—a situation which, if achieved, would represent freedom from internal strain and anxiety, and freedom from potential strain; which would represent the maximum in realistically oriented adaption; which would mean the establishment of an individualized value system having considerable identity with the value system of any other equally well-adjusted member of the human race. (p. 532)

Considering Rogers's articulation of humanism creates a stark contrast between humanism and the psychological theories that preceded it. Humanism contends that individuals come prewired with needs, desires, and aspirations—a notion highly at odds with the tabula rasa assumption of empiricism. Humanism could also be said to be far more positive in its assumptions of human beings. It assumes that individuals are good, and striving to be better. This, of course, is quite different from unfulfilled sexual desire, which is the wellspring of behavior in Freud's psychodynamic theory.

Humanism is not without its own set of assumptions (Slife & Williams, 1995). Three assumptions are worth noting. First, a type of determinism is implicit in Rogers's (1951) description of humanism (consider, for example, the fourth point of the previous list.) Acting for the sake of a hardwired drive, or sense of purpose, is an inherently deterministic point of view. Maslow (1968) in fact bases these needs in biology. Slife and Williams (1995) detail the inherent determinism of such a position by stating that "If…our potential and sense of our own needs are based in biology, they are not things we can do much about. Although we might be able to do something in *response* to them, we cannot do much about *having* them and their attendant influences in the first place" (p. 35). In this way, humanism shares some of the same philosophical roots as behaviorism and cognitive theory.

The second fundamental assumption of humanism also infers determinism, this time, best illustrated by point seven in Rogers's (1951) list. Rogers states that the best frame of reference for understanding the individual is the individual. In other words, individuals are especially capable of understanding themselves and their needs, desires, etc. In short, only the individual can know for certain what is required for their own self-actualization. This knowledge of one's needs is, per the humanist, often hidden from the individuals themselves—a type of hidden knowledge that is roughly akin to the deterministic philosophy of psychodynamic theory (Slife & Williams, 1995).

Finally, inherent in humanism is a moral relativism that many may not be willing to accept when more closely considered. Rogers (1951) refers to

this as an individualized valuing system, the implications of which are not immediately evident. Slife and Williams (1995) articulate the challenges with such an assumption, stating:

> Because every person's needs are potential are different, and the right thing to do is to pursue these things individually, then everyone's morality is unique and applicable only to individual persons…What is right or wrong can only be judges in light of individual needs for fulfillment and actualization. (p. 37)

While most humanists would likely find such an association with their philosophy inaccurate at best and abhorrent at worst, this assumption of moral relativity evidently inherent in humanism is a sterling example of the importance of understanding such assumptions prior to fully embracing the philosophy.

While this chapter focuses primarily upon Rogers's articulation of humanism, it should be noted that many other theories of psychology also align themselves with humanism, including Adlerian psychology (Mosak, 2000), Ellis's (2000) rational emotive behavior therapy, and gestalt psychology (Yontef & Jacobs, 2000). While these theories differ on many fundamental aspects, all share the same basic philosophical assumptions. These assumptions, then, are critical in the adoption of the theory or in its application.

Humanism's influence on HRD is evident. Recall this text's earlier discussion of Mayo (1945), Follett (1919), and Barnard (1938). Among their most core assumptions, personal growth and development was the essential drive and purpose of human beings. In fact, this core assumption became the crux of the human relations movement. It is not that far of a stretch to state that the human relations movement is the real-world application of humanism as a philosophy. That psychological theory and industrial practice arose in tandem is also likely not coincidental.

Specific elements of humanism have found specific application in HRD. A key example is Maslow's (1968) hierarchy of needs theory. This theory has been used to inform employee training practice (Fox, 1990). It has been used extensively as the basis for understanding and impacting employee engagement (Benson & Dundis, 2003; Shuck, Rocco, & Albornoz, 2011). Carkhoff's HRD model, designed to provide HRD professionals (and specifically facilitators) the skills they need to positively enact change, is explicitly built upon Rogers's (1951) humanism (Cash, 1984).

Structuralism

The final theory of psychology reviewed in this text is structuralism. At first blush, the term structuralism appears vague and potentially confusing. In this context, and as used by Slife and Williams (1995), structuralism is a family of theories with many of the same assumptions, including systems theory, family therapy, feminism, and Marxist theory. Goldenberg and Goldenberg (2000) effectively describe the key elements of a structuralist understanding of behavior:

> *Organization* and *wholeness* are especially important. Systems are composed of units that stand in some consistent relationship to one another, and thus we can infer that they are organized around those relationships. In a similar way, units or elements, once combined, produce an entity—a whole—that is greater than the sum of its parts. A change in one part causes a change in the other parts and thus in the entire system. If this is indeed the case, argue systems theorists, then adequate understanding of a system requires study of the whole, rather than separate examination of each part. No element within the system can ever be understood in isolation, since elements never function separately. (pp. 376–377)

It is tempting to consider and evaluate the systems as described from a cybernetic, or mechanistic, perspective. Slife (1993) notes that "self-regulating systems govern themselves as a result of feedback mechanisms. These mechanisms permit the system to 'know' what it is doing and correct itself appropriately" (p. 186). Recall the previous discussion of Aristotelian material causality (Silverstein, 1990) and its implicit linearity of time (Slife, 1993). A mechanistic understanding of systems, while appropriate in technical domains is not the assumptive basis of the structuralist theories of human behavior.

Per the structuralist, human behavior is best understood through an organismic model of systems and a rejection of the temporal linearity of the mechanistic model. The nature and preeminence of the system, however, differs with the specific school of thought. Feminist theory places ultimate weight upon the potentially oppressive nature of societal gender roles (Wedding, 2000). Marxism claims that the "structure of economic relations is preeminent" (Slife & Williams, 1995, p. 52). In family therapy, the familial structure holds primary influence (Goldenberg & Goldenberg, 2000). For Piaget (Piaget & Kamii, 1978) the physical, spatial, and logico-arithmetical structures are determinant.

The emphasis on that which is unique to each structuralist theory illuminates the assumptive commonality. In each case, the structure is

deterministic (Slife & Williams, 1995). Individuals cannot act but for the sake of the structure to which the particular theory holds primacy. Slife & Williams (1995) articulate several key assumptions of the structuralist approach: the unassailability of the structure, the untestability of the structure, the deterministic nature of the structure, and the unknowability of the structure.

Various structuralist approaches have been utilized in the development of HRD theory, practice, and research (Swanson, 2001; Wang, Dou, & Li, 2002). Feminist approaches to both research and theory have been postulated (Bierema & Cseh, 2003; Metcalfe, 2008). Garrick (1998) evaluated workplace learning in the context of, among other theories, a Marxist (Marx & Engels, 1906) structure. Atkinson-Tovar (2002) framed a challenge for HRD to better understand the needs of crisis workers through Piaget's (Piaget & Kamii, 1978) cognitive structuralism while Chermack and Lynham (2002) used the same as a theoretical support for scenario planning and as a tool in leadership development. Structuralism and its attendant psychological theories are ubiquitous in current HRD theory and practice.

Conclusion

The philosophy of today's HRD is best distinguished by its axiology or its methodology. Thus considered, HRD today is firmly in the camp of pluralistic, pragmatic, and eclectic philosophy. This is evidenced both in the ways in which methodology is avowed, as well as in the way the discipline is currently practiced. Far from being a shelter from philosophical assumption, the axiology of today's HRD may in fact be hiding philosophical assumptions without fully recognizing their potential impact.

Psychology, perhaps the most significant of Swanson's (1999) three legs in terms of impact to HRD, has a long and varied history. Various schools of thought in the discipline have risen and diminished in popularity, and one can see the mapping of HRD theory and practice as psychology embraced new and emerging ideas. From the pairing of behaviorism and scientific management, humanism and the human relations movement, to systems theory as both psychology and foundation for OD theory and practice, the history of psychology and HRD are tightly knit. A better understanding the philosophical assumptions of psychology aids HRD in understanding its own theoretical assumptions. In the following chapter, a closer evaluation of those assumptions will be addressed.

9

Underlying Assumptions of HRD Theory and Practice

Reviewing the history of HRD in this text is somewhat akin to flying cross-country in a jumbo airliner versus meandering down Route 66 in a ragtop convertible: your view is limited by small windows, high elevation, and the route the pilots chose. After reading thus far you may be exclaiming to yourself, "But what about the Cadillac Ranch outside of Amarillo? How can any tour of the United States consider itself complete without visiting such a landmark of Americana?" And you may very well be right! Without question, we have missed some elements of history that are indeed significant. In some instances, this is due to the limitations inherent in writing a book—one can only cram so much in before one risks critical overload. Other instances may simply be due to the authors' biases or interests. We may have skipped the Cadillac Ranch in Amarillo to save time for a visit to the Winchester Mystery House in San Jose.

So, the authors fully admit that this text is not a *comprehensive* examination of the history of HRD. What is contained in the text, however, is a *representative* history that underlines a key, central premise: that the interplay of philosophy, theory, and practice can be seen again and again throughout the history of HRD. Moreover, as HRD has formalized as a discipline, the appropriate rigor required in illuminating philosophical assumptions has often been lacking. Additionally, the previous chapters have demonstrated that seminal events in history have had a significant impact on how HRD is theorized and practiced today. One can trace the lineage of modern HRD back to the building of the Great Pyramid. Far from being a brand-new discipline, the roots of HRD run as deep as the history of civilization. Wherever humans invested in the growth, development, training, and management of one another (in whatever capacity, through whatever modality, to whatever end), a building block to the eventual discipline of HRD was placed.

This penultimate chapter first consists of a final review of the seminal events covered in previous chapters—with a particular focus on how those events relate to HRD today. The chapter concludes with a more in-depth discussion of the primary philosophies espoused and embraced, which form the foundation of much of current HRD theory and practice.

Seminal Events in HRD History

In reviewing the data presented in the preceding chapters, interesting themes and trends begin to emerge. As can be seen in tables 9.1, 9.2, and 9.3, distinct connections exist between key, seminal events in the history of Western civilization as it relates to what we would today call HRD and how HRD is currently practiced. The roots of HRD can be traced back through the ages as various societies undertook the task of better understanding humans as workers to more effectively utilize said individuals for their own benefit and the benefit of their sponsoring organization (Alagaraja & Dooley, 2003). Indeed the data presented suggests that a key trend in the overall history of human interaction is that, once organized into formal groups, individual development for the sake of the group becomes a key component of the groups' tacit or explicit survival and growth strategy.

While it would be erroneous to suggest that the list of seminal events in HRD contained in this text is exhaustive, it is representative of the main research thesis. As stated previously, the central research question for this text is whether or not a link exists between the theory of HRD, the practice of HRD, the informing philosophy of the time, and the historical context in which seminal events in HRD occurred. It would be assumed that, should the thesis prove valid, sufficient evidence would exist in the historical record of events in history that can be shown to influence the current practice of HRD as well as demonstrate the early adoption of practices and theories that would eventually become HRD. In addition, the central thesis would suggest that an evaluation of the historical record would also yield clear examples of how the predominant philosophy of the time influenced the coming forth of these seminal events.

EarlyC ivilization

The first historical period reviewed in chapter 2, early civilization dating back to 3000 BC, is demonstrative. The creation of an apprenticeship model is noteworthy. However, of real interest in this research is the evaluation and valuation of talent, skill, and ability—with compensation

Table 9.1 Seminal events in HRD, their relation to current practice and informing philosophy: Early civilization–The Enlightenment

Time period	*Events*	*Relation to current HRD practice*	*Informing philosophy*
Early civilization	Establishment of formal alphabet (Alagaraja & Dooley, 2003)		
	Large-scale construction projects (Smith, 1999)	Talent evaluation tied to compensation model (Smith, 1999)	Lex talionis—an eye for an eye (Fish, 2008; Held, 2010)
	Apprenticeship model established (Alagaraja & Dooley, 2003)		
Hellenic period	Development of Western political thought (Mackenzie, 1907)	Models of learning (Mazur, 1994)	Empiricism (Burtt, 2003)
		Systems theory (von Bertalanffy, 1972)	Humanism (Barrie & Pace, 1998)
	Introduction of formal learning institutions (Floridi, 2011)	Humanistic education (Moss, 2001)	Teleology (Silverstein, 1990)
Middle Ages	Promulgation of the church (Ekelund & Hebert, 2010; Feldhay, 2006)	Training & development as growth strategy (Caspers, 2003)	Theology as philosophy (Davies, 2004; Gracia, 2002)
	Establishment of the Magna Carta (Linebaugh, 2008)	Protection of individual rights as part of standards & ethics (AHRD, 1999)	Humanism (Augustine, 1989)
The Renaissance	Global trade & exploration (O'Rourke & Williamson, 2002)	HRD defined in humanistic terms (Bates, Hatcher, Holton & Chalofsky, 2001)	Civic humanism (Moulakis, 2011)
			Humanistic education (Vives, 1913)
The Enlightenment	Validation of Newton's metaphysics	Empiricism as predominant research methodology in HRD (Han, Kuchinke, & Boulay, 2009)	Empiricism (Klein, 2012)
	American Revolution		Materialism (Locke, 1989)
			Newtonian physics (Rynasiewicz, 2014)
		HRD as corporate entity—output of capitalism (Hatcher & Lee, 2003)	

Table 9.2 Seminal events in HRD, their relation to current practice and informing philosophy: Industrial Revolution–World War II

Time period	*Events*	*Relation to current HRD practice*	*Informing philosophy*
Industrial Revolution	Development of vocational education (DeSimone & Wener, 2012)	Evidence-based practice (Rousseau, 2006) Psychological testing for job fit and development (Berr, Church, & Waclawski, 2000) Development as the purview of the private sector (Abel & Li, 2012)	Empiricism (Musson & Robinson, 1969) Productivity as philosophy (Kramnick, 1982)
	Introduction of vocational psychology & aptitude testing (Freeman, 1912; Parsons, 1909)		
	Creation of factory schools (Beatty, 1918)		
	Development of scientific management (Taylor, 1911)		
	Creation of War Industries Board (Smiddy & Naum, 1954)		
	Centralization of personnel practices (Baron, Dobbin, & Jennings, 1986)		
World War II	Rise of the human relations movement (Barnard, 1938; Follett, 1919; Mayo, 1945)	Employee engagement as key driver of productivity (Cardus, 2013; Elliott & Turnbull, 2003; Harter, Schmidt & Hayes, 2002; Shuck & Wollard, 2008) Charter to develop and perfect best-practice methodologies in instruction, process improvement, and employee relations (Davis, Naughton, & Rothwell, 2004; Watkins, Leigh, Foshay, & Kaufman, 1998)	Humanism (Melè, 2003) Structuralism (Barnard, 1938; Follett, 1919; Mayo, 1945)
	The Hawthorne experiments (Pennock, 1930)		
	Establishment of Training within Industry (Dooley, 1945)		
	Entry of women into the workforce (Goldin, 1991)		

Table 9.3 Seminal events in HRD, their relation to current practice and informing philosophy: 1950s–1970s–1980s–2010s

Time period	*Events*	*Relation to current HRD practice*	*Informing philosophy*
1950s–1970s	Introduction of change management theory and organization development (Lewin, 1947) Introduction of lab testing (Highhouse, 2002) Introduction of survey research (Likert, 1958) Introduction of action research & systems theory (Lewin, 1946; Brydon-Miller, Greenwood, & Macguire, 2003)	Change management as key tenet of practice (Buchanan, Ketley, Gollop, Jones, Lamont, Neath, & Whitby, 2003) Survey research as eminent modality (Chiaburu, Huang, & Hutchins, 2014; Gill, Duggar III, & Norton, 2014; Singh, 2014) Systems theory as basis of viewing and engaging organizations (Senge, 1990)	Humanism (Knowles, 1958) Structuralism (von Bertalanffy, 1969)
1980s–2010s	Formal definition of HRD role (Hansen, 1980) Establishment and refining of HRD competency model (Arneson, Rothwell, & Naughton, 2013; Davis, Naughton, & Rothwell, 2004; McLagan, 1989) ASTD establishes itself as representative of HRD practitioners (Miller, 2008) AHRD establishes itself as representative of HRD theoreticians (Russ-Eft, Short, & Jacobs, 2014)	HRD as a distinct feature of overall talent management strategy (Davis, Naughton, & Rothwell, 2004) HRD as a largely results-driven discipline with focus on productivity (Keefer & Yap, 2007; Swanson, 1995; Torraco, 2004)	Methodological pluralism (Howard, 1983; Midgley, 1992) Pragmatism (Fenwick, 2011; Hookway, 2015)

tied to that valuation as detailed by Smith (1999). Davis, Naughton, and Rothwell (2004) articulate the core behaviors and competencies of the HRD professional. Explicitly stated in their model, and falling under the responsibility of workplace learning and performance, is measuring and evaluating as well as improving human performance. The historical

record as related by Smith (1999) would suggest that the construction of the Great Pyramid in 3000 BC—and other construction projects—was, in fact, an early example of systematic measuring and evaluating of individual performance.

As described by Fish (2008), the predominant philosophy of the time was an eye for an eye or lex talionis. Such a philosophy is essentially one of proportionality; an individual is meted out in reward or punishment in proportion to that which is fair, equal, and commensurate. The influence of such an informing philosophy is evident when considering the example articulated above. Measurement and evaluation of performance, and indeed even the ability to calculate the worth of an individual, is the core assumption of lex talionis (Held, 2010). Value is inherent in the philosophy, as is the assumption of wholeness. What is right is what will make an individual whole, or fully valued. The principle works for punishment as well as compensation, though, in this circumstance, the latter is the focus. In the case of this early example of HRD practice, it is clear that the informing philosophy held direct sway on how the seminal event occurred.

TheH ellenicP eriod

The Hellenic period was extensively reviewed in chapter 3. Evidence of early HRD practice exists during this period in the establishment of Plato's Academy (Barrie & Pace, 1998). Plato's Academy was a formal institution of learning whose explicit purpose was the growth and development of the individual—particularly the leader. While formal educational systems are able to trace their genealogy to the academy, it is fair to suggest that private-interest learning may do the same. Davis, Naughton, and Rothwell (2004) note the design and delivery of learning as core to current HRD practice. Plato's Academy stands as an early example of such practice.

As notable as the establishment of Plato's Academy was, perhaps the most influential elements of the Hellenic period was the philosophy that sprung forth. These philosophical traditions can be separated into three distinct schools of thought; humanism, empiricism, and systems theory. Plato's Academy is an example of the influence of the humanistic school of thought. Mackenzie's (1907) description of Platonic education's purpose as the growth and development of the individual is an example of this humanistic philosophy.

Aristotle's philosophy, particularly his metaphysics, provided the foundation from which empiricism grew. Not only did empiricism

eventually come to dictate how we approach knowledge, but also how we conceptualize learning (Mazur, 1994). The informing philosophies of humanism and empiricism both wielded influence in the establishment of Plato's Academy, and continue to influence the practice of HRD today (Rousseau, 2006; Cardus, 2013).

Finally, the Hellenic period provided an additional informing philosophy in the form of teleology—the final of four causes in Aristotelian causality and the foundation of systems theory (von Bertalanffy, 1972). While a more detailed analysis of systems theory and its application in modern HRD will be given later in this chapter, there is no question that the concept of final causality has significant implication in both the theory and practice of modern HRD. It is also critical to note that Aristotelian causality was intended to be understood as a whole (Silverstein, 1990). Final causality was the progenitor of systems theory, but so too was material causality to empiricism and formal causality to humanism. All such concepts informed the thinking that produced Plato's Academy, and also much of the theory and practice of Western civilization.

The Middle Ages, Renaissance, and Enlightenment

The Middle Ages provide an additional, fascinating era in which the early residue of eventual HRD practice is observed. Evaluation of the era provides a compelling example in the methodology of growth of the Catholic Church at this time. Modern evaluation of the growth of the church suggests a strong kinship to the current franchise model (Davidson, 1995; Ekelund, Hébert, & Tollison, 1989). Current franchise model theory places significant emphasis on training and development as critical to its successful implementation (Rothenberg, 1967).

Should the thesis of this research hold, one would expect to see a similar emphasis on training and development in the early promulgation of the church. Such is the case as current scholarship notes the critical role of talent management and training in the selection and development of pastors during the period of the Middle Ages (Caspers, 2003; Weiler, 2003). Methodological approaches, such as apprenticeship (Ghosh, 2012; Hegstad, 1999, Hezlett & Gibson, 2005) and scientific management (Capelli & Hamori, 2008), also appear both in this era as well as throughout the rest of HRD's history. Such evidence provides further confirming validation of the initial thesis—seminal events in history inform the current expression of HRD as a discipline.

The philosophy of the Middle Ages was also distinct. Perhaps the most compelling element of the philosophy of the time was that of

theology-as-philosophy. As conceptualized by Aquinas, philosophy was a tool to be used for the growth and betterment of the church (Gracia, 2002). Recall, again, Castrogiovanni and Kidwell's (2010) definition of training and development in the franchise model, to "standardize and replicate a successful model in a different location" (p. 229). Inherent in the definition is the preeminence of replication of the founding organization. While one could claim simple synchronicity in the establishment of an early franchise model and inherent modalities and aims of training and development with the entrenchment of theology-as-philosophy, the more likely scenario is that the two are indeed linked.—Theology-as-philosophy was in fact an important influencing factor in the means by which this early example of HRD practice finds genesis.

The establishment of the Magna Carta during the Middle Ages also reflected the philosophy of the age. For both Augustine and Aquinas, the role of the state was to provide for the temporal welfare of the individual so that that same individual could then be guided in spiritual affairs by the church. This notion of realizing individual growth and development is at the crux of humanistic philosophy—a philosophy that impacts HRD in ways as broad as how the discipline codifies their ethical standards and principles (AHRD, 1999).

The seminal event of the Renaissance follows a similar pattern to those previously reviewed in other eras. The establishment of global trade and expansion is, of itself, notable. More interesting to the HRD scholar is the reason why such expansion occurred—it was fueled by civic humanism (Moulakis, 2011) and humanistic education (Graves, 1913). Economic expansion was viewed as a means of fulfilling these philosophical aims. Humanistic education informs HRD's current mission to "enhance learning [and] human potential" of individuals for whom it holds stewardship (Bates, Hatcher, Holton, & Chalofsky, 2001, p. 205). With its dual emphasis on human potential and organizational success (Swanson, 1995) one can see a distinct parallel between the state-sponsored humanism of the Renaissance and corporate-sponsored humanism of today's HRD.

Finally, the Enlightenment brought with it significant advances in science and politics. Mentioned specifically in chapter 4 was the Newton-validating reappearance of Halley's Comet and the establishment of the United States of America. While comet sightings alone are not especially profound, this particular occurrence provided substantiation for Newton's methodology and metaphysics. Other philosophers of the Enlightenment solidified that method into what is now known as the scientific method—an approach with significant application in HRD and other behavioral sciences. The founding of America, also spurred by the philosophy of the time, provided the capitalist arena in which HRD would eventually develop.

TheI ndustrialR evolution

The next era evaluated in the research is the Industrial Revolution, an era in which the through-lines between the practices of the time and HRD as it is now realized become more distinct. The establishment of factory schools during this era continued the efforts first established during Plato's Academy—that formal institutions dedicated to the development of the individual were paramount for the growth and success of the society. Current HRD practice assumes it is largely the role of the private organization to provide individuals with the skills necessary to be productive in said organization (Abel & Li, 2012). It is evident that the establishment of factory schools clearly influenced the means by which HRD is practiced today. The advent of scientific management was also of abundant significance.

Scientific management's aim, as detailed in chapter 6, was the drive for efficiency while increasing productivity (Taylor, 1911). Davis, Naughton, and Rothwell (2004) list the improving of human performance as a key discipline of the HRD professional, in essence the identical aim of scientific management. Moreover, during this period, the first human resource professionals were introduced and personnel management centralized (Baron, Dobbin, & Jennings, 1986). The era's organizational focus on human performance improvement, coupled with the establishment of roles charged with driving said improvement, had clear impact on how HRD is now understood and practiced.

The introduction of vocational psychology during this time also holds significant sway with the manner in which HRD is currently theorized. More detail will be given later in this chapter on the confluence of HRD theory and psychology. Vocational assessment, used both in private industry and the military, became one of the first footholds of psychology into what would become the practice of HRD. Chapter 8 details the extensive relationship history between HRD and psychology—the data contained therein strongly suggests that the two are inextricably linked. The central research thesis is further supported when considering the introduction of vocational psychology during the Industrial Revolution and the theory and practice of today's HRD.

As subtle as was the connection between the philosophy of the Middle Ages and the HRD-related events of the time, the philosophy and practice of the Industrial Revolution was overt. Scientific management clearly, and explicitly, embraced a philosophy of empiricism (Thompson, 1917). The psychology of the time, including vocational psychology, also aligned itself with empiricism (Watson, 1994). The fundamental philosophy of the era was one where the observable, replicable, and testable was supreme.

However, an additional influence is noted in the data. Recall Kramnick's (1982) description of the ethos of the time. He states that "citizenship and the public quest for the common good were replaced by economic productivity and hard work as the criteria of virtue" (p. 662). While empiricism no doubt held sway during this era, the focus on the productive organization (and not on the growth of the individual) hearkens as well to theology-as-philosophy as seen in the Middle Ages. Perhaps a more suitable term for the era is productivity-as-philosophy. Nevertheless, the singular emphasis is strikingly similar. Once again, the thesis of this research is supported when considering the influence of these dual philosophies of empiricism and productivity-as-philosophy.

WorldW arI I

A review of the data from the World War II era brings to light several key events that impact the practice of HRD, with the development of the human relations movement among the most significant. The human relations movement was a direct response to the perceived disregard for the welfare of the individual (Ledford, 1999). Spurred by the results of the Hawthorne experiments (Pennock, 1930), the aim of the organization was reconsidered as a means of individual growth, development, and self-actualization. Barnard's (1938) summation of the notion, supported by the writings of Follett (1919) made clear that this individual improvement was achieved through association with others. This is perhaps the most critical concept of the human relations movement: not only was the organization responsible for the improvement of the individual, but the organization was also the best vehicle for individual improvement.

Taken in such a context, the shift in thinking from the Industrial Revolution to the World War II era becomes starker in contrast. In fact, the human relations movement was perhaps most consistent in philosophy with the Hellenic view of civilization as detailed previously. Recall that the Greeks viewed the role of society similarly—that civilization existed as a field upon which the individual could seek to recognize his/her own potential. Reaching said potential, then, benefitted the larger society. It is worth noting that the manifestation of that philosophy included the development of Plato's Academy as a means of individual development and also as an early example of humanistic education. In Plato's Academy, knowledge was garnered from experience, after which knowledge was able to be leveraged for the benefit of the individual and society. Recall, then, Follett's (1927) call for the designation of an individual whose role it is to manage and categorize managerial experience for future benefit.

There appears in Follett's request a link to the humanistic philosophy that informed the establishment of Plato's Academy in the previous millennium, and which continues to guide the practice of HRD today.

Later portions of this chapter detail humanistic psychology and its relation to HRD. It is appropriate at this juncture, however, to note the clear link between the development of humanistic psychology and the rise of the human relations movement during this period. Similar to the suggestion that scientific management and behavioral psychology did not arise simultaneously, but rather coincidentally, there appears to be a distinct link between the growth of the human relations movement, humanistic psychology, and a general emphasis on humanism as a guiding philosophy of the era.

The ways in which HRD was practiced during this era also hold significant sway when reviewing the charted course of the discipline. In reviewing the data, the event to which HRD is most evidently traceable is likely the establishment of the Training within Industry department by the federal government. Consider that Dooley established, tested, and refined programs tackling human performance, quality management, and human relations (Jacobs, 2002). Human performance and human relations, as has been mentioned already, are key job responsibilities and areas of expertise of the current HRD professional (Davis, Naughton, & Rothwell, 2004). Quality management, while a discipline unto itself, has manifested itself in some of the most strongly held methodologies of HRD (Watkins, Leigh, Foshay, & Kaufman, 1998).

Dooley (1945) does not go into any detail regarding an underlying philosophy of approach as he developed the various J-tools. However, the mere presence of both job instruction training and job relations training suggests he saw the need for efficiency in productivity and the need for a positive, fulfilling work environment for such efficiency in productivity to occur. Quoting again from Dooley, his first key points in early JRT drafts was that "Employees are human beings . . . They are all individuals" (p. 210). It is a reasonable assumption, then, that, as a starting point, these statements revealed Dooley's fundamental assumptions, which were also consistent with the humanistic philosophy of the time.

It is beyond the purview of this research to evaluate the full impact of women entering the workforce en masse during the time of World War II, other than to note that it occurred and that it likely influenced the way early HRD was practiced. While there is much to be explored on this topic, it seems at least plausible that said entry was correlated in some form or fashion with the influence of humanistic philosophy. While the historic record does clearly demonstrate that women's large-scale entry into the workforce was the result of pressing national need (Mulligan,

1998), unanswered in this text is what full impact this event held in how workforce practices changed as a result of said entry.

1950s–1970s

The review of historical data from the period of the 1950s through the 1970s reveals a coalescing of the disparate work being done in the arena of HRD into one more firmly defined discipline. Tannenbaum's (1954) prediction of the formation of a discipline that draws upon the social and behavioral sciences, with branches focused upon practice as well as the theoretical, was prescient. Fueled by the continuing momentum of the human relations movement, the discipline of HRD began to take shape as theoreticians turned to the challenges of the organization and applied new ideas and techniques to those challenges. Indeed, the continuation of the human relations movement into this next era suggests that its core concept—employee engagement as a key predictor of productivity—was becoming an immutable fact in both theory and practice (Cardus, 2013; Elliott & Turnbull, 2003; Harter, Schmidt, & Hayes, 2002; Shuck & Wollard, 2008).

Many of the foundational practices of HRD were developed during this time, including the establishment of intervention modalities such as the T-group (Highhouse, 2002) and action research (Lewin, 1947), the preeminence of survey research as a primary modality (Likert, Roslow, & Murphy, 1932), and the introduction of change management theory (Lewin, 1947). Each of these critical events directly impact the way in which HRD is currently understood and practiced. A cursory review of HRD research demonstrates the extensive utilization of survey research (Chiaburu, Huang, & Hutchins, 2014; Gill, Duggar III, & Norton, 2014; Singh, 2014). The fundamental principles and steps in action research and T-groups continue to impact the way in which HRD is practiced (Bennis, 1963; Chang & Jacobs, 2012). Change management is currently seen as a key function of the HRD professional (Davis, Naughton, & Rothwell, 2004), with entire industries dedicated to providing theory and tools to assist in the change management process.

The common theme between the seminal events listed during the 1950s through the 1970s is the influence of systems theory. Recall the description of the human relations movement provided by Barnard, Follett, and Mayo, in which all three emphasized the importance of understanding the individual as part of a larger social structure. Such a concept is core to the underlying structural philosophy that manifested as systems theory during this period. Lewin's change theory, heavily influenced by the

human relations movement, is also a distinct example of theorizing based upon the structuralist philosophy.

The modalities that came forth during this period were also strongly influenced by systems theory and its attendant philosophy. The T-group and action research are both examples of interventions based upon systems theory, as was the leadership model proposed by Likert. In all, it is clearly evident that during this period, the emergence of systems theory, and its underlying structuralist philosophy, held significant sway as key events in HRD occurred. That this occurred is not surprising given the similar patterns detailed in previous eras. The establishment of the Society for General Systems Research was established at the commencement of the era—1954. In this era, HRD's solution set was, and in large part continues to be, framed in terms of a structuralist philosophy and systems theory.

1980s–2010s

The most recent era of HRD is also the era in which it became firmly established as a discipline with a more clearly defined charter to assist organizations in productivity and change-management efforts. The discipline's practitioner arm, ASTD, articulated in 1989 (McLagan, 1989) and again in 2004 (Davis, Naughton, & Rothwell, 2004) and 2013 (Arneson, Rothwell, & Naughton, 2013) what constituted an HRD practitioner based upon areas of expertise and competency. The consistent element in each of the three conceptions of the HRD practitioner is a focus upon assisting the business in achieving results. Indeed, in the most recent iteration of the ASTD competency model, the practitioner is charged with a better understanding of business skill and knowledge of the industry in which he/she operates (Arenson, Rothwell, & Naughton, 2013).

The theoretical arm of HRD, the Academy of Human Resource Development, also defined itself in largely utilitarian terms. Russ-Eft, Short, and Jacobs (2014) note the goal of studying processes and practices, as well as encouraging application of those practices. From such a definition one can distinctly identify the emphasis placed upon the practicality of theory. As the modern era of HRD dawned, the key measuring stick for both HRD theory and practice became the utility of theory and the efficacy of practice (Keefer & Yap, 2007; Swanson, 1995; Torraco, 2004). In emphasizing practicality and utility, HRD began to distance itself from a larger philosophical discussion into a focus on axiology or method.

The record from this most current period in HRD history suggests that, instead of embracing an evaluation of HRD from a philosophical

standpoint, such difficult questions were assuaged through the embrace of methodological pluralism and pragmatism. Indeed, during this period methodological pluralism and pragmatism became de rigueur as a means of placating those who aligned with either a humanist or empiricist perspective. Review of the modern state of HRD suggests a discipline that is largely inattentive to its grander philosophical questions despite calls from some to embrace such discussion for the ultimate benefit of both theory and practice (Lynham, 2002; Ruona & Lynham, 2004).

In summary, a closer examination of the data presented in the preceding chapters provides significant support of the central thesis: events across history have clearly influenced the development and current practice of HRD. Consistent with the Vygotsky model (1997), such events can be evaluated both by their utility at the time as well as from the perspective of current HRD theory and practice. Finally, these seminal events were clearly influenced by the predominant philosophies of the time—philosophies that carry with them inherent assumptions on the nature and role of the individual.

PhilosophicalA ssumptions

What are the informing philosophies of HRD as demonstrated by its historical development, and what are the essential assumptions of those philosophies? As described in chapter 1, of primary concern when evaluating the philosophies of the discipline is the hidden nature of many of the underlying assumptions. Throughout the text, we have constantly returned to Slife and Williams's (1995) general rubric of assumptions—that all philosophy falls into either the category of necessity or possibility. Looking back at the philosophies considered in this text, very nearly all fall into the category of necessity.

Table 9.4 provides a review of the three key informing philosophies of HRD, based upon a summation of the various philosophies considered in the preceding chapters. The three informing philosophies are: empiricism, humanism, and structuralism. While other philosophies, such as lex talionis, were impactful at certain times and may still carry some influence today, the philosophies outlined here could be considered most impactful in today's HRD. Table 9.4 gives a representation of some of the areas in which these philosophies influence HRD practice, as well as additional details on the assumptions of each philosophy.

Empiricism, like all three philosophies detailed, traces its roots back to the Hellenic period. Plato's (Plato, 1966) assertion that what could be observed provided the best platform for learning (Truitt, 1978), as well

Table 9.4 Informing philosophies of HRD and their underlying assumptions

Philosophy	*HRD practice*	*Underlying assumptions (Slife, 1993; Slife & Williams, 1995; Slife, Burchfield & Hedges, 2010)*
Empiricism	Personality testing (Lohman, 2004; Messmann & Mulder, 2012) Selection assessment (Berr, Church, & Waclawski, 2000) Evidence-based practice (Locke, 1978; Rousseau, 2006) Instructional design (Gagné & Dick, 1983; Mazur, 1994; Wilson, Jonassen, & Cole, 1993)	Determinism Reductionism Biologization Linear causality
Humanism	Employee engagement (Cardus, 2013; Elliott & Turnbull, 2003; Harter, Schmidt, & Hayes, 2002; Shuck & Wollard, 2008) Facilitation (Cash, 1984)	Determinism Moral relativism Formal causality
Structuralism	Survey research (Likert,1958) Communities of practice (Chang & Jacobs, 2012) Organizational learning (Senge, 1990)	Determinism Final causality

as Aristotle's material causality and its inherent linearity (Silverstein, 1990), form the basis of empiricism. Empiricism, and its attendant scientific method, would grow from this early beginning in ancient Greece to become more fully realized with the philosophies of Enlightenment thinkers such as Newton (Rynasiewicz, 2014) and Bacon (Klein, 2012). It would eventually become the dominant philosophy of our time (Slife & Williams, 1995). As detailed in chapter five as well as in this chapter, empiricism as a philosophy is most evidently displayed through HRD's embrace of scientific management and its intellectual and methodological descendants.

It carries with it several underlying assumptions (Slife & Williams, 1995). The first is determinism—the notion that individuals act because of, and for no other cause than, an external influencing factor. Empiricism also assumes a reductivistic perspective—that events and individuals can be best understood through evaluation at the smallest level. Such an assumption ties in neatly with the additional assumption of biologization. Empiricism assumes a biological genesis for individual behavior—for example, that individuals act for the sake of their genetics (Slife, Burchfield, & Hedges, 2010). Finally, empiricism assumes that time is

linear, an assumption that becomes readily apparent in considering most learning models (Slife, 1993).

Humanism carries with it inherent assumptions as well. Similar to empiricism, humanism assumes an inherent determinism, though the influencing source is different (Slife & Williams, 1995). It also assumes that individuals act for the sake of their own inner drive or potential (Rogers, 1951) or through influence with the divine (Pasnau, 2015). That this information is only accessible by the individual also assumes a type of moral relativism—the individual is the only one who truly determines if their actions are consistent with their striving for self-actualization. Humanism's philosophy is consistent with Aristotle's formal causality. Individuals act because of their essential nature. As detailed in chapter 6, humanism as a philosophy is supremely influential via the continuing impact of the human relations movement in HRD.

Structuralism also holds inherent philosophical assumptions. As with empiricism and humanism, structuralism assumes determinism (Slife & Williams, 1995). Individuals act for the sake or because of the structure or system—whatever that structure or system may be. The structure is assumed to be unknowable and untestable; in other words, it is impossible to get outside of the system to test the system (Slife, 1993). This is the very nature of the philosophy of structuralism—to understand an individual aspect of the system, one must consider the whole system. It is that holism that relates back to Aristotelian teleology or final causality. Objects and individuals act in accordance with the ultimate aim or end in relation to the system of which they are a part. Structuralism, then, is the foundational assumption of systems theory and, as discussed previously, is a concept with wide influence in HRD theory and practice.

The Danger of Hidden Assumptions

Much of this text has either explicitly warned or hinted at the danger of hidden philosophical assumptions. It is fair, at this point, to ask why the theoretician or practitioner should overly concern themselves with philosophical assumptions, either overt or hidden. Might all of this potentially overwrought concern for philosophy be unnecessary in an applied field such as HRD? Some might argue that HRD first ought to determine if it is indeed a discipline (Kuchinke, 2001; Swanson, 2001) and more appropriately determine the roles of scholar and practitioner (Holton, 1999) before undertaking anything so bold as to root out its underlying philosophical assumptions.

The authors believe that such ontological discussions regarding HRD are worthwhile and enrich the discipline. However, it is the position of

this research that philosophical discussions are critical and demand our attention. Some may suggest that it is unnecessary to carry underlying philosophical assumptions into practice. If the theorist rejects the underlying assumption, then what power does it hold? And might the practitioner be best served to remain untied to any specific philosophy, instead free to embrace whatever practice has greatest utility at any given moment?

In chapter 8, we review the assumptive risks associated with philosophies of pragmatism and eclecticism. While the theorist or practitioner may believe they simultaneously embrace a theory or theory-based practice and reject an accompanying unsavory assumption, one key unheard voice may beg to differ: the individual to whom the theory or practice is being applied. It appears to us, that the group that benefits most from a greater transparency in philosophical assumption is the group about whom these assumptions are being made. It also appears to be an ethical imperative, then, that such transparency becomes part of the lexicon of both the practitioner and the theoretician.

Ought an employee to know if an instrument being used under the guise of their own growth and development also carries with it an underlying assumption that the individual has no free will? Recall the example that began chapter 1—of the unique nature of advertising prescription drugs (Wilkes, Bell, & Kravitz, 2000). Does the HRD professional owe its consumer the same information with regard to the philosophical assumptions upon which their methodologies rest? The authors would suggest that this is indeed the case. At the very least, such a notion raises potential dilemmas that ought to be considered in the broader exploration of ethics within the discipline (Hatcher, 2002; Hatcher & Aragon, 2000; Mitchell, 2006).

Conclusion

HRD has a rich history that extends nearly as far back in time as one can peer. HRD professionals, practitioners, and scholars extend and grow a tradition of enhancing human performance that dates back thousands of years. The methodologies and theories of the discipline have roots in the most profound and important philosophies of Western civilization. HRD, as a discipline, has much of which to be proud. It also has an obligation to understand the philosophical assumptions upon which its theories are based. In short, it has an obligation to critically evaluate itself. The concluding chapter reviews the need for critical thinking in HRD.

10

Critical Thinking in HRD: A Path Forward

As has been previously mentioned, one of the core concepts of critical thinking is the illumination of philosophical assumptions. In this text, the reader has been exposed to numerous philosophies, most of which are core not only to HRD but also to Western thought. In reviewing these philosophies, three key themes emerged that could be considered pillars of current HRD practice with strong ties to major historical events: (1) the influence of scientific management, (2) the influence of the human relations movement, and (3) the influence of systems theory.

Gosney's Model of Modern Era Theory and Practice Generation in HRD

Pillar I: Scientific Management

The introduction of scientific management principles had far reaching impacts and effects both at the time of its introduction and continuing into the modern era of HRD. More impactful than the methodology of scientific management, however, was the ethos of scientific management. The practice of scientific management in early HRD also introduced into the discipline a focus on testable, repeatable, impactful methodology (read: empiricism) that has become a hallmark of its research (McGoldrick, Stewart, & Watson, 2002; Russ-Eft, Short, and Jacobs, 2014) as well as its practice (Hamlin, 2002; Holton, 2004; Stolovitch & Keeps, 2011).

Another review of Davis, Naughton, and Rothwell's (2004) model underlines the emphasis on performance. Indeed, driving performance is presented as the primary aim of the discipline. Leveraging modalities such as evidence-based practice in HRD demonstrates the discipline's

close ties to the scientific management of the past (Hamlin, 2002; Holton, 2004; Terpstra & Limpaphayom, 2012). Particularly significant, however, is the continued influence of the personality and vocational testing that was closely associated with scientific management.

Such practices continue to be leveraged extensively in the HRD community (Berr, Church, & Waclawski, 2000; Lohman, 2004; Messmann & Mulder, 2012). It is worth noting that vocational psychology, as described by Parsons (1909), assumes that evaluative factors are trait-based: that is, inherent, unchanging aspects of an individual that can be measured and quantified. While the full impact of such assumptions will be discussed later in this chapter, it further underscores the impact of scientific management in the current practice of HRD.

Pillar II: Human Relations

The impact of the human relations movement is another historical pillar to which the current practice of HRD appears closely tied. Stemming from the research of the Hawthorne experiments, the fundamental thrust of the movement is twofold. First, productivity is largely a function of employee engagement and second, engagement is cultivated from social interaction. Ontologically, the human relations movement is a combination of humanism and systems theory, though likely with a greater emphasis on humanism and its embrace of the self-actualization concept espoused by Maslow (1968).

The core idea of employee engagement (as measured by supervisor/employee relationship) as key predictor of productivity is hugely influential in the theory and practice of today's HRD (Cardus, 2013; Elliott & Turnbull, 2003; Harter, Schmidt, & Hayes, 2002; Hughes & Byrd, in press; Ledford, 1999; Sarachek, 1968; Shuck & Wollard, 2008). A closer look at McLagan's (1989) human resource wheel further emphasizes the influence of the human relations movement. McLagan emphasizes productivity as a central aim of HRD. The stated focus of organization development (OD) in McLagan's model includes emphasis on positive organizational relationships as a means of achieving productivity. Indeed the two core concepts surrounding the human relations movement continue to hold significant sway on how HRD is understood as a discipline.

Pillar III: Systems Theory

The final historical pillar upon which HRD is footed is the emergence of systems theory. The influence of sociotechnical systems theory as

espoused by the Tavistock Institute, particularly upon the practice of OD (Brydon-Miller, Greenwood, & Macguire, 2003; McLean, 2006; Trist & Bamforth, 1951) is central to the HRD discipline. Independent of other structuralist theories, systems theory has wielded significant influence in HRD. When considering other structuralist theories such as feminism and Marxism, the full impact of the philosophy is even more readily apparent (Atkinson-Tovar, 2002; Bierema & Cseh, 2003; Chermack & Lynham, 2002; Garrick, 1998; Metcalfe, 2008; Swanson, 2001; Wang, Dou, & Li, 2002).

Davis, Naughton, & Rothwell's (2004) new learning and performance wheel displayed the influence of systems theory in HRD. First and foremost, the choice of a wheel as the metaphoric vehicle emphasizes the holistic thrust of systems theory. The inclusion of organizational knowledge management and organizational change management as HRD subdisciplines also underscores the influence of systems theory (Lewin, 1947; Senge, 1990).

The interface of individuals and technology—explicit in Davis, Naughton, & Rothwell's model and expanded beyond just the scope of HR technology in the 2013 revision (Arneson, Rothwell, & Naughton, 2013)—demonstrates the continued influence of sociotechnical systems theory. HRD as a discipline today is truly defined through three events in its history: the establishment of scientific management, the embrace of the human relations movement, and the influence of systems theory. Based upon a review of the historical record, the stature of these events in the history of HRD is evident. That each of these three constructs contains philosophical assumptions that influence HRD practice is less so.

Gosney's model of modern era theory and practice generation in HRD (see figure 1.1) suggests that, in its current manifestation, HRD theory and practice are at times and in certain circumstances indistinguishable and at times completely disconnected. As economic and environmental pressures mount, the distance between theory and practice increases and the focus of either becomes asynchronous. The influence of previous historical context as well as the historical context in which HRD currently resides holds influence on current theory and practice. Thus, three key historical pillars are identified. Philosophy, however, with its attendant assumptions does not cease to wield influence on both theory and practice. Instead of explicitly informing theory and practice philosophy becomes a hidden partner with influence but not acknowledgement. It is as if, as a discipline, in the rush to get things done, HRD professionals have collectively decided not to look up. Such a collective decision brings with it inherent consequences.

Philosophical Pillars and Current HRD

As mentioned above, three core philosophies have had the greatest influence historically on HRD. These philosophical pillars align with the three historical pillars of HRD: scientific management and empiricism, the human relations movement and humanism, and systems theory and structuralism. In that vein, a model of the philosophical pillars upon which HRD theory and practice rest is proposed. Swanson's (1999b) model suggests that HRD theory is made up of three main constructs: psychological theory, economic theory, and systems theory. The author believes that an antecedent to such a model is one that considers the prevailing philosophies upon which both HRD theory and practice are built: empiricism, humanism, and structuralism. Figure 10.1 illustrates this newly proposed model.

It should be noted that recognizing the significant influence of the three philosophical pillars above does not imply endorsement of those

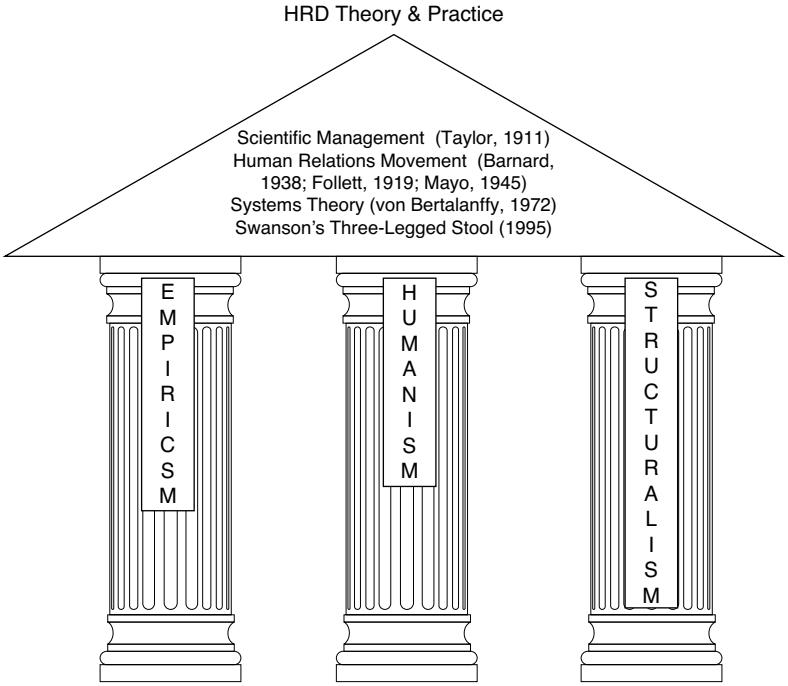

Figure 10.1 Gosney's three philosophical pillars of current HRD theory and practice.

pillars. Based upon the research conducted for this text, they are the most influential philosophies in HRD theory and practice. When considering current HRD theory and practice, it is appropriate to suggest that the discipline rests upon these three philosophical pillars. This is also not to suggest that Swanson's (1999b) model is inaccurate, or that other models may more accurately describe the means of theory building in HRD. The model simply suggests that, prior to the evaluation of Swanson's or any other model, first a careful consideration of the philosophical pillars is necessary. And, as has been detailed, these pillars carry with them very specific assumptions of reality, the human condition, and ways of knowing (Slife & Williams, 1995). An aim of this book is to make more explicit this underlying philosophy and associated assumptions. It is the task of the discipline as a whole to determine if these pillars are an acceptable philosophical basis, and if we as members and our customers are comfortable with the assumptions these pillars propose. If not, it becomes incumbent upon the discipline to evaluate alternatives.

Recommendations to the Discipline

A primary recommendation of the authors is the establishment of theoretical HRD as a clearly defined subdiscipline in HRD. Undertaking the task of continuous evaluation of HRD philosophy in both theory and practice carves out a new domain within the discipline of HRD, as well as a new skill set required of both the HRD theoretician and practitioner. It is worth reiterating the definition of theoretical psychology given by Teo (2009):

> Theoretical psychology . . . refers to metatheoretical work. All psychologists rely on theories, either explicitly or implicitly in their empirical studies and practices. In that sense, all psychologists use and to a certain degree contribute to theoretical psychology; but not all psychologists reflect upon their own explicit and implicit theories and assumptions and contextualize them within philosophical domains. Such an activity—the reflection on theories, and on the history, status, connection, and development of psychological concepts, methods, ideas, and worldviews—is a metatheoretical task. (p. 1)

Note that, in this definition, Teo suggests all psychologists—theoreticians and practitioners—contribute to the theory of psychology. It is not a stretch to suggest the same in the field of HRD. Teo suggests that a higher level of metatheoretical work must be done in psychology to avoid the influence of implicit and explicit assumption. Might HRD do the same?

This text provides a valid argument that HRD would benefit from this level of meta-analysis and welcome those HRD scholars so inclined to such analysis. Indeed, given the nature of the HRD discipline as one that draws from the theoretical work of multiple other disciplines, the risk of undisclosed philosophical assumption infiltrating HRD theory and practice is significant. On a larger scale, however, it behooves HRD to give more careful consideration to the matters of philosophy. Recalling again Peters's (2012) lament:

> No one takes the soul seriously in psychology, nor is biology paralyzed by failure to have reached a satisfactory definition of "life." Nor do all the philosophers seek "wisdom." Perhaps kenosis of its central term is the sign of a mature field. (p. 505)

HRD risks a similar kenosis, for the central term of the discipline is the word "human" and all that the word implies. Understanding what it means to be human, particularly in the context in which HRD studies that humanity, deserves more scholarly effort than a passing glance or obligatory nod. Indeed, it should be a central feature of the academic discipline if that is what HRD aspires to be. Hughes's (2012) work urging the discipline to consider the humanness of the worker is a positive step.

Critical Thinking and the HRD Professional

Critical thinking requires individuals to ask questions both internally of themselves and externally of their peers and society at large to determine if they are using an integrated approach to analyzing, organizing, and dealing with the issues encountered in daily life. It is especially essential that those who consider themselves to be academic scholars or working professionals to conduct this type of questioning before making decisions as their decisions impact not only themselves but also those that they are tasked to teach, lead, and help develop. Their decisions require a careful analysis of all available facts even if it requires more time to seek additional facts beyond those that are readily accessible. These scholars and professionals must be able to understand the relationship of ideas and consider past influences that may affect their assessment of these ideas including their own personal biases. Being able to look at situations in new ways through critical thinking provides a much-needed asset to the field of HRD

Facione, Facione, and Giancarlo (1997) define the "disposition toward critical thinking [a]s the consistent internal motivation to engage

problems and make decisions by using thinking" (p. 2). Thinking can only occur when the individual has the content upon which to think and make a decision. Individuals in professional positions are expected to utilize critical thinking skills as they seek to help their organizations make decisions that increase their competitive advantage. HRD professionals are no exception. According to Facione, Facione, and Giancarlo (1997):

> The exercise of core critical thinking skills, such as analysis, interpretation, inference, evaluation, explanation, and self-correction, is essential to the work of the millions who are program directors, administrators, supervisors, managers, military officers, health care providers, customer service representatives, law enforcement officials, educators, engineers, journalists, ministers, athletes, business agents, and entertainers. Poor thinking can easily be as costly as inexperience or inadequate knowledge of the professional field. (p. 1)

They further suggest that the issue of missing critical thinking in professional fields could be the lack of motivation to think critically and not a lack of knowledge.

HRD professionals are in a unique position because they are expected to teach critical thinking to others and ensure that those they teach return to their jobs and immediately use those skills (Foshay, Silber, & Stelnicki, 2003; Helsdingen, Van den Bosch, Van Gog, & van Merriënboer, 2010). In instances where the knowledge has been known to be attained by critical thinking participants, motivation to use the skills may need to be assessed upon their return to their job (Facione, 1994; Facione, Sánchez, Facione, & Gainen, 1995; Giancarlo, Blohm, & Urdan, 2004). They are asked to exercise professional judgment. As described by Facione, Facione, and Giancarlo (1997),

> using critical thinking as the foundational concept, as a working definition *professional judgment* can be characterized *as a goal-oriented decision-making or problem-solving process carried out in the interest of one's client wherein one gives reasoned consideration to relevant information, criteria, methods, context, principles, policies, and resources.* (p. 3)

Understanding that professional judgment requires complex depth of knowledge and analytical reasoning ability, HRD scholars and professionals should be required to establish a higher standard for entry into the field. Currently, there is no specific career path identified for becoming an HRD professional who exercises professional judgment.

The Need for Critical Thinking in HRD

It is unlikely, and frankly nonproductive, to assume that all theorists and practitioners will become fully and completely adept at the metatheoretical work proposed herein. What is more reasonable, however, is an increased focus on the critical thinking skills that aid both the HRD theorist and practitioner in recognizing the influence of philosophy and its inherent assumptions (Halpern & Riggio, 2003). While rare, other voices have been raised to suggest that the need for critical HRD is beneficial and necessary for the continued growth of the field (Callahan, 2007; Fenwick, 2004, 2005; Storberg-Walker & Chermack, 2007; Valentin, 2006).

HRD Critical Thinking Competency

The establishment of an HRD critical thinking competency both academically and as part of the HRD professional competency model is essential. A similar blueprint exists within the field of psychology for instilling the skill of critical thinking in professionals (Slife, 2012; Richardson & Slife, 2011; Yanchar & Slife, 2004; Yanchar, Slife, & Warne, 2008). A purposeful study of the history of HRD would provide the appropriate platform from which the student of HRD could develop and grow a critical thinking skill set. Utilizing HRD history as a backdrop is consistent with Teo's (2009) description of theoretical psychology's aim. In psychology, this skill of critical thinking is fundamentally inward-looking. It is the skill of evaluating the theories and assumptions of one's own discipline. With the evident need for such a skill set in HRD professionals, the obligation rests with the discipline to chart a way forward for professionals to be so educated.

Opportunities to Leverage Critical Thinking Skills

The opportunity to leverage critical thinking skills in HRD is immense. Further research could focus on one specific area of HRD theory and practice, for example, leadership development, and more fully and robustly explore the potential impact of philosophical assumptions. With such a wide variety of avenues to explore, the potential for future research in this vein is nearly limitless.

Additional research is suggested on the influence of postmodern philosophy and HRD, as well as an exploration of the alternative assumptions that postmodern philosophy provides HRD and its potential impact on both theory and practice. This text presents philosophy from a strictly modernist perspective, and it should be noted that some theory

and practice from a postmodernist perspective does occur in HRD and related disciplines (Kang, 2007; Plakhotnik & Rocco, 2006). As advocated by Han, Kuchinke, and Boulay (2009), a more in-depth evaluation is possible and desirable. For example, postmodern philosophical traditions such as hermeneutics (Ericson, 2006), applied in methodologies such as those based on narrative therapy (Parry & Doan, 1994), provide new wellsprings of theory and practice in HRD—untainted by the assumptions of modernist philosophy.

Gosney's model of modern era theory and practice generation in HRD provides additional avenues of research. For example, a more robust examination of how HRD practice methodologies disseminate between and among organizations would be of particular interest, as well as a fuller evaluation of the impact of environmental and economic factors that contribute to the overlap of theory and practice. The sociological theory of diffusion would provide an interesting vantage point from which to examine this phenomenon (Strang & Soule, 1998), as would Rogers's (2010) diffusion of innovation. The model also suggests the exploration of potential, additional informing philosophies. Following a process similar to that undertaken in this book—evaluation of philosophy, event, and theory/practice—is a potential means of expanding the roster of informing philosophies in a systematic manner.

Finally, additional research is needed to more fully understand how best to teach the critical thinking skills set forth in this text in HRD higher education (Colucciello, 1999; Cruce, Wolniak, Seifert, & Pascarella, 2006; Facione, 1990; Halpern, 1998; Laird, 2005; Reid & Anderson, 2012; Stupnisky, Renaud, Daniels, Haynes, & Perry, 2008; Van Gelder, 2005; Willingham, 2007). While it is proposed in this text that historical review is a viable option, it most certainly is not the sole option (Anderson & Reid, 2013a). Evaluation of current HRD programs at the undergraduate, graduate, and doctorate level, and investigation of current curriculum from the perspective of critical thinking education (Halpern, 1997) would be significant in charting a path forward for the HRD discipline in making critical thinking a core competency of both its theorists and practitioners (Giancarlo & Facione, 2001; Profetto-McGrath, 2003).

Conclusion

This text provides a launching point for discussion and additional research related to critical thinking in HRD. The ideas presented here could generate debate within the HRD discipline and differing and competing perspectives will likely emerge from that debate. Such debate and

discussion is to the ultimate benefit of the HRD discipline. The work contained herein is incomplete and not the final word on the topic of the history of HRD, philosophy, theory, and practice because more remains to be examined and evaluated. There are many other related topics that were not explored or explored fully herein. These topics, some directly related and some merely tangential to HRD, would benefit from a robust examination in their own right.

It is clear that significant gaps exist along the timeline of Western civilization and that those gaps likely contain events that would further bolster the central thesis of this work. The seminal events thus examined are representative versus exhaustive. A continuous examination within the field of theoretical HRD and with the use of critical thinking would be of significant benefit.

Gosney's model of modern era theory and practice generation in HRD also suggests the need for a clearly defined operational framework in HRD that considers the explicit influence of informing philosophy. As a discipline of theoretical HRD emerges, the model could rightfully be modified to contain a feedback loop back to philosophy. In its current manifestation, philosophy is a tacit influencer of HRD theory and practice. With the formalization of theoretical HRD, and the establishment of an operational framework that incorporates the findings of said subdiscipline, such a feedback loop can be justified. HRD will then be, as Jaspers (1951) suggests, on its way in search of wisdom.

This text only begins to evaluate some of the theories and practices of HRD. With a discipline so rich in specialty and so far-reaching in scope, the range of methodology and theory is enormous. The ideas presented in this text are suggested to generate discussion, debate, disagreement, competing points of view, and heightened awareness of the power of philosophical assumptions. For HRD, the danger of kenosis of its central term is simply too great a risk to not consider. HRD is, among other things, the means by which individuals obtain some measure of joy and satisfaction in their professional lives. The burden of choosing and proposing theory and practice that aligns philosophically as well as practically is significant and important.

A major work lies ahead for the HRD discipline should it choose to go down this path of metatheory and critical self-evaluation. Attentiveness in considering philosophy in theory building must increase. Self-policing to ensure philosophical assumptions are explicitly stated as theory is proposed must begin and must be objective (Kruger & Dunning, 1999, 2002). The quality of critical thinking on behalf of HRD theoreticians and HRD professionals must increase.

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