

8 Theoretical Traditions in Human Information Behavior

Theoretical traditions play an important role in empirical research, whether or not a researcher recognizes them, and human information behavior is no exception. Each method used in an empirical study has roots in methodological and theoretical traditions. The method *micromoment timeline interview* (Dervin 1992), for example, is derived from the sense-making methodology (see section 3.2.1), which is grounded in a number of theoretical traditions. Research in every field, discipline, and science is directed by such foundations, which together embody its theoretical traditions.¹

Research in human information behavior (HIB) has been guided by a range of theoretical traditions in the social sciences and the humanities and has explicitly addressed some of them, mostly in theoretical writings with a few applications to empirical research. This chapter examines on a general level how theoretical traditions have been viewed and used in HIB research; it does not provide a survey of these theoretical traditions or describe individual ones. Since the discussion requires a mention of some elementary philosophical concepts, the chapter begins with a simplified presentation of some basic issues.

8.1 Some Basic Issues

A theoretical tradition—such as positivism, phenomenology, or constructivism—is based on certain *epistemological* and *ontological* foundations. An epistemological stance has distinctive answers to questions such as: What is knowledge? How is knowledge acquired? How do we know what we know? Why do we know what we know? Benton and Craib (2001) explained that an epistemological stance implies a set of “criteria by which to distinguish genuine knowledge from mere belief, prejudice or faith” (181).

An ontological stance reflects a position about “what kinds of things or substances there are in the world” (Benton and Craib 2001, 183). Each stance offers its own

answers to questions such as: What is existence? What is a physical object? What does it mean to say that an object exists?

For the analysis of philosophical issues in HIB, the discussion here distinguishes between the empiricist epistemological stance and the set of all the other stances that are not empiricist, and between the realist ontological stance and the nonrealist one. For an individual researcher, both epistemological and ontological stances are born from her worldview and her understanding of the place of research in the world.² Thus, while a phenomenon can be studied from both realist and nonrealist stances or from empiricist and nonempiricist stances, and while a theoretical tradition may be based on more than one specific epistemological or ontological stance,³ researchers preserve their stance across their work unless their worldview has changed.⁴ This consistency does not imply that researchers always adhere to one theoretical tradition; in fact, it is not uncommon among HIB researchers who apply theoretical traditions to harness more than one, even in one study. These researchers, however, usually select epistemologies or ontologies that are compatible.

8.1.1 The Empiricist Stance

The empiricist stance was originally developed for the natural sciences, in which it is still the dominant approach.⁵ Benton and Craib (2001) explained:

[T]he empiricist view of science can be characterized in terms of seven basic doctrines:

1. The individual human mind starts out as a "blank sheet." We acquire our knowledge from our sensory experience of the world and our interaction with it.
2. Any genuine knowledge claim is testable by experience (observation or experiment).
3. This rules out knowledge claims about beings or entities which cannot be observed.
4. Scientific laws are statements about general, recurring patterns of experience.
5. To explain a phenomenon scientifically is to show that it is an instance of a scientific law...
6. If explaining a phenomenon is a matter of showing that it is an example or "instance" of a general law, then knowing the law should enable us to predict future occurrences of phenomena of that type. The logic of prediction and explanation is the same. ...
7. Scientific objectivity rests on a clear separation of (testable) factual statements from (subjective) value judgments. (14)⁶

Most central to the discussion in this chapter are doctrines 2, 3, and 7. That is, researchers in this tradition claim that a statement constitutes knowledge, rather than a belief, only if it can be tested empirically and proven or disproven. Because testing requires observable entities, knowledge can be arrived at only from entities that can be observed. In addition, when created through testing, scientific knowledge

is objective and free of value judgments. The most well-known empiricist approach in the social science is *positivism*, which claims that “Scientific method, as presented by the empiricists, can and should be extended to the study of human mental and social life, to establish these disciplines as social *sciences*” (Benton and Craib 2001, 23).⁷

The stances of nonempiricists are diverse and nuanced. Rationalism, for instance, maintains that knowledge can be established through the use of human reason, and relativism argues that there are no context-free criteria that can guide a judgment between different points of view. While the differences among these epistemological stances are significant, this chapter ignores them for the sake of clarity. With these complex issues, simplifying is likely to lead to misrepresentations. The purpose of the chapter is to examine the patterns in which HIB researchers attend to theoretical traditions, and yet a reliable explanation of them all would require a book of its own. Some of these nonempiricist theoretical traditions have been elucidated in the HIB literature (e.g., Benoit 2007; Budd 2005; Hjørland 2004, 2005a; B. Jones 2008; Leckie, Given, and Buschman 2010); Radford and Radford 2005; Sundin and Johannisson 2005; Talja, Tuominen, and Savolainen 2005; Vickery 1997; Wang 1999; Wikgren 2005; T. D. Wilson 2003).

8.1.2 The Realist Stance

Realists hold the position that reality has an existence independent of how people know it and how they perceive it. More precisely, a realist has the “view that (some of) the things about which we have beliefs are independent of those beliefs and are, in principle, knowable” (Benton and Craib 2001, 184).⁸ This view is easy to accept in the natural sciences, as is concisely reflected in Gertrude Stein’s sentence, “A rose is a rose is a rose.” The objects of study in the social sciences, however, are humans and groups of humans, which have certain abilities to intervene in the world. Therefore, a realist HIB researcher studies not only reality, independent of participants’ knowledge and perception, but also the participants’ perception of reality (see the discussion in section 7.1.3). Two researchers who study the human perception of a phenomenon can hold opposite ontological stances: One maintains that these perceptions are reality in its totality (the nonrealist), and the other (the realist) claims that they are views of reality—as well as being part of it—and that reality itself is independent of the participants’ perceptions of it.⁹

Most popular among the nonempiricist and nonrealist researchers in HIB are the interpretive stances, such as phenomenology, constructivism, and hermeneutics—that is, those that concentrate on the interpretation of human actions and cultural

products and claim that all knowledge is a matter of interpretation. Positivism, on the other hand, requires realism. If there is no objective reality that is independent of humans', how can a researcher be objective? In fact, at times *realism* and *positivism* are mistakenly used interchangeably.¹⁰

8.2 Patterns in Reliance on Theoretical Traditions

The most prominent shift in HIB research has been the gradual move from a focus on fixed attributes—such as *the experience of an actor* or *the physical environment*—to the inclusion of dynamic and process-related phenomena as objects of study. This shift was accompanied by a growing acceptance of interpretive approaches in a predominantly positivist research field. Yet HIB is taking its very first steps in the philosophical and methodological world and is very far from reaching the initial stages of maturity. Among the many challenges the field faces are the HIB researchers' disinclination to consider methodological issues and the inconsistency with which these issues are addressed when they are considered.

8.2.1 Researchers' Attention to Methodological Issues

HIB researchers in the first generation applied the "scientific method," that is, positivism. This preference is not surprising because most often researchers in the United States were scientists or engineers in their organizations and so they applied the methodological approach common to the natural sciences. Social science itself had just begun to accept other theoretical traditions into its empirical research at that time, and it was too early for these to migrate into HIB work.

A clear example of the adherence to positivism was provided by Bawden (2008), when he summarized Bertram Brookes's philosophical writings about the science of information:

[S]uch a science would be based on several foundational principles:

- its main role would be "the exploration and organization of Popper's World III of objective knowledge";
- it would be scientific, in that all the data studied would be "publicly observable and the whole approach objective";
- it would require a recognition that information and knowledge were not physical, but "extra-physical entities which exist only in cognitive (mental or information) spaces";
- quantitative analysis would be paramount, using techniques from the physical sciences, adapted to cognitive spaces. (418)

Bawden also noted that “Brookes’ series of papers has been highly influential and widely cited, and continues to be cited to the present day” (418).

Positivism is still strong today, and relatively few HIB researchers consider alternative theoretical traditions. The majority follows the “scientific method,” or ignores the issue altogether and continues “the way we have been doing research,” following the methods demonstrated by their mentors and other researchers. As a result, a significant portion of HIB research is positivist.¹¹ At the same time, though, positivism has become much less appreciated by social scientists, and therefore very few researchers see themselves as positivists.¹²

Positivism in HIB research is manifested not only by the disinterest in theoretical traditions (Hjørland 2004) but also by the explicit adherence of some researchers to the empiricist doctrines listed above from Benton and Craib (2001). Positivist arguments can be found in various articles. Järvelin and Ingwersen (2004), for instance, argued, “Theoretical understanding must be grounded on observables. Otherwise it turns into speculation.” Ford (2004) stated, “An essential defining criterion of *research* is that it should produce evidence that is open to, and bears, scrutiny. Implicit in the concepts evidence and scrutiny is the notion of objectivity” (1169).¹³ Similarly, Järvelin and Wilson (2003) required models to have explanatory power, that is, “the ability to explain and predict phenomena” (see Benton and Craib’s doctrines 6 and 7 above). A testimony to the deep diffusion of a positivist theoretical tradition can be found in data analyses and in the presentation of results. Statements about a study’s limitations are an example. Although every study has limitations, most quantitative-study reports do not include a “limitations” section, while most of the qualitative ones do spell out their limitations. Determining what is a “limitation” seems to follow informal, yet well-established standards. For instance, most, if not all, qualitative-study reports have followed these standards and caution that their findings cannot be generalized. Yet these standards are not all-encompassing and they ignore other issues that can be considered limitations. For instance, “providing no contribution to theory development” is a limitation, but researchers do not point to it (to my knowledge). The widely held focus on generalization has been induced by the prevailing positivist approach that requires generalizability but releases studies from other duties such as generating new theories.

On a more general level, it seems that most HIB researchers strive toward objective results. Statements of facts in a research’s findings are rarely qualified with the researcher’s point of view or her theoretical approach. This “objectivity” is attained through experiments and through quantitative analyses of well-defined, observable

variables. In addition, most HIB studies limit their investigations to the observable and avoid the development of findings through rational means.¹⁴

A simple example may elucidate this point. In a study of sanitary workers for the City of Seattle who used mobile computers (Fidel et al. 2007), my colleagues and I thought that interacting with the system was somewhat complicated and far from intuitive. Nevertheless, all workers could interact with the system with a reasonable level of proficiency. One of our findings at that point was that the workers had received some type of training, even though we had not observed the training directly nor heard about it through interviews.¹⁵ This type of finding would probably not be considered a genuine knowledge claim by many HIB researchers because it was not based on observables.

Centering on the observable sometimes leads to false knowledge claims, according to positivist criteria. One example is the use of questionnaires to establish facts. Researchers ask respondents to answer questions that are objective in the researchers' eye,¹⁶ and then present the results as facts about reality, rather than as the participants' *perception* of reality. As a hypothetical example, a questionnaire might ask study participants about their searching behavior, with questions about objective issues such as the level of their experience, the frequency of their web searches, and the number of searches they conduct simultaneously. Researchers would then compile the results and present them as facts, that is, as genuine knowledge claims. On a closer examination, however, it is clear that at least two of the questions are not objective according to positivist criteria—those about the level of experience and the number of simultaneous searches. Answers to the former present the participants' perception of the level of their experience, which may be viewed differently by others. Answers to the question of simultaneous searches clearly depend on the participant's understanding of the concept *search*, which may be different from that of the researchers. According to positivist criteria, the objective level of experience needs to be determined through observables. In the experience case, this determination can be accomplished by means such as a test administered to all participants to determine their individual levels of experience.

Despite the dominance of positivism, which is partly generated by a lack of knowledge and recognition of theoretical traditions, interest in theoretical traditions is rising among HIB researchers (Cronin and Meho 2009). HIB research literature shows that a few researchers have selected a set of theoretical traditions as their guide, the majority of which are interpretive.¹⁷ Most active in analyzing these traditions are researchers in the European Nordic countries.¹⁸ Among them, some have limited their research to the theoretical and philosophical levels, while others have been engaged in empiri-

cal research as well. Their work has been influential to some extent, and their approaches have not only been accepted but have been followed by other researchers, particularly in the area of in-context research.

In summary, while most HIB researchers have, with or without intent, followed the positivist theoretical tradition, new voices have championed interpretive approaches. At the same time, the number of discussions and debates about methodologies and about theoretical developments has been on the decline (Kim and Jeong 2006; Vakkari 2008). It is hoped that the attention to new theoretical traditions will encourage other researchers to increase their knowledge about them and their engagement with them.

8.2.2 Misconceptions and Contradictions

Two trends are typical among the researchers who are cognizant of the contribution of theoretical traditions to HIB research. Some researchers write about certain theoretical traditions and may also be engaged in empirical research that is guided by them, while others are avid empirical researchers who thread methodological assertions into their research reports or their reflections on their empirical work. While the former are usually highly familiar with the theoretical traditions they discuss and their historical and philosophical roots, the latter are usually less proficient. This relative lack of knowledge may lead them to include some misconceptions or contradictions in their view of the theoretical traditions they select to employ or discuss.

For example, although positivism is dominant in HIB research, researchers may have misconceptions about its doctrines. T. D. Wilson (2003), for instance, explained the reasons for rejecting positivism when he discussed the need for a theoretical tradition unique to HIB.¹⁹ After examining papers that were prepared for a conference, he concluded that their shortcomings were rooted in positivism, which emphasizes quantitative analyses and provides very little understanding of information behavior, context, or the factors that affect information behavior. These shortcomings, however, are not those of positivism but probably of the papers he examined. While a positivist study requires quantitative analysis and an interpretive study requires a qualitative component, quantitative and qualitative analyses can both be employed with the positivist theoretical tradition and in other theoretical traditions as well. The difference is in the role the results play in knowledge claims. A positivist study, for example, may conduct a qualitative investigation to generate hypotheses, rather than knowledge claims. Similarly, a nonpositivist one may carry out a quantitative analysis to guide the development of the study's sample, rather than generate knowledge claims. The other shortcoming Wilson pointed to—that of providing little understanding of behavior and its context—is not a flaw of positivism, but rather

of the research project being examined regardless of the theoretical tradition that guided it.²⁰

Another type of misconception is the unwarranted claim about the employment of a theoretical tradition. The simplest way to make this claim is by stating its use, ignoring other methodological considerations distinctive to the theoretical tradition. A typical example is a hypothetical researcher who declares that her study is guided by the systems approach because she is designing it with a holistic view, but then ignores the fundamental requirements of the approach, such as giving a boundary definition for the studied system and examining the interactions among its elements (see section 1.2). While her approach is holistic, her study is not guided by the systems approach.

Contradictions may also surface when a researcher applies two theoretical traditions that rest on opposing philosophical foundations. Wilson's criticism of positivism can serve as an example. Analyzing models in HIB research, T. D. Wilson (1999) explained that one of the reasons for the field's failure to build a cumulative body of research is that, in "the positivist [theoretical tradition], quantitative research methods were adopted that were inappropriate to the study of human behavior" (250).²¹ Later in the article he claimed that a model he proposed in the past was limited because "it provides no suggestion of causative factors in information behavior and, consequently, it does not directly suggest hypotheses to be tested" (251–252). Hypotheses are tested, however, to fulfill the conditions required by positivism for genuine knowledge claims. That is, Wilson rejected positivism but at the same time employed one of its doctrines: Any genuine knowledge claim is testable by experience (observation or experiment).

In an earlier essay, T. D. Wilson (1994) noted that "his view of information needs and information-seeking behavior is phenomenological in character" (32). Yet at the beginning of the article he expressed a positivist approach when he reported that he had used the term *information-seeking behavior* "to identify those aspects of information related activity that *did* appear to be identifiable, observable, and, hence, researchable" (16). That is, only identifiable and observable aspects can lead to genuine knowledge claims. This understanding is incompatible with a phenomenological approach. The term *phenomenology* has received several meanings, such as a philosophy, an ontology, an interpretive theory, and a research method framework. Wilson understood it to be a philosophical framework according to which "we need to focus upon human experience of the world, rather than on the world itself and, indeed that the 'real world' should be 'bracketed,' that is, put aside from consideration while we focus on the individual experiences" (Wilson 2003, 447). This latter statement confirms that

phenomenology, in his view, is nonrealist, whereas the positivism he earlier espoused is realist.

Without discussing the various flavors of phenomenology, it is clear that it is in conflict with positivism. Budd (2005), for example, asserted that “Across all conceptions of phenomenology there is a clear and explicit recognition that experience is richer than what our physical senses can apprehend” (45). Patton (2002) elucidated that, for the phenomenologist, “There is no separate (or objective) reality for people. There is only what they know their experience is and means” (106). That is, positivism and phenomenology have opposite ontological stances on reality and therefore cannot reside within the same worldview.

On an abstract level, scholars believe either in the positivist approach or in a non-positivist one; this belief is fundamental and therefore one cannot shift back and forth between approaches. Similarly, researchers either believe that there is a reality independent of us and that some of it is knowable, or they do not—that is, they are realists or nonrealists—and this belief cannot regularly shift from one stance to the other. Nevertheless, researchers at times employ simultaneously theories from incompatible theoretical traditions.

It seems that the main source for these misconceptions and contradictions is the researchers’ notion about the role of a theoretical tradition. All researchers ally themselves with a set of theoretical traditions, whether or not they are cognizant of this alliance. Yet most empirical HIB researchers ignore the role of these traditions in their work. Nevertheless, theoretical traditions can creep in at times, unbeknownst to the researcher. If a researcher selects a conceptual construct to guide his research project, for example, the construct is embedded in a theoretical tradition, and therefore selecting a conceptual construct also means (perhaps unknowingly) choosing a tradition to guide the project.

Researchers often see constructs as helpful tools they can use in a project, rather than as a part of their own conceptual makeup. Some even have developed a research agenda in which they try various conceptual constructs one after the other. Misconceptions and contradictions may occur when a theoretical tradition that a researcher claims to apply does not fit the worldview that guides the project or program.²² This problem might arise when a researcher has not articulated to himself his worldview, or when he is not familiar with the philosophical roots of the theoretical tradition he is employing.²³ It is not uncommon in such situations for researchers to select trendy theoretical traditions for their investigations.²⁴ A basic understanding of one’s own worldview and the philosophical foundations of individual conceptual constructs is a promising path for avoiding misconceptions and contradictions.

Characterizing one's own worldview in philosophical terms and studying theoretical traditions require a large investment of time and intellectual effort. Is it necessary to invest so much energy just to avoid a few possible misconceptions and contradictions? Are there any other benefits?

8.3 The Role of Theoretical Traditions

Understanding one's own worldview and theoretical traditions offers benefits to both the HIB research community and to the individual researcher. On the community level, discussions about the definitions of basic concepts could be placed in a constructive perspective; an infrastructure for cumulative research and for convergence would be present; and theoretical growth would be supported, as would the distinction between the central and the peripheral. Individual researchers would get support when facing challenging situations and would increase their understanding of research in other theoretical traditions, which in turn would make their communication with other researchers more effective.

Discussions about the definitions of concepts that are basic to information science in general and to HIB in particular—such as *information* and *information need*—were at their peak at the junction between the two generations of research but are not very common today. Scholars seem to have concluded that these discussions did not reach a resolution, and therefore they might as well continue their work and avoid the issue. Indeed, HIB research saw great development and growth without a definitional consensus. It is not clear, moreover, whether a resolution is desirable. Different theoretical traditions may lead to diverse definitions, and unless one advocates a single tradition for HIB, this diversity enriches the research scene. An example of the differences between positivist and interpretive definitions is given in table 8.1.

Table 8.1

An example of two definitional approaches (May 2009)

	Positivist	Interpretive
Information	A real entity that exists independently of human's interaction with it	Something that is created as humans interact with each other and with the world
Information need	A real entity that exists in an actor's mind	An actor's realization that she misses something that is required to move from one situation to another

Consider the definitions of the concept *information* (e.g., Buckland 1991; Bates 2005). In section 1.1.2, I introduced my own interpretation of the concept that was guided by the systems approach²⁵—in particular, the requirement that information is for decision making. Others have defined *information* in various other ways—as whatever reduces uncertainty or changes an actor's state of knowledge, or as a social construct, as two examples. All these definitions are “legitimate” and there is no need to find the “best” one. What is missing, however, is an explicit explanation of which theoretical tradition induced each one of them. Knowing the roots of these definitions would demonstrate that there is no one “right” definition, and would afford their harmonious coexistence.²⁶ A researcher can then select the definition that fits her worldview, while also benefiting from the scholarly work of researchers with other worldviews. A purely cognitive approach, for instance, is incompatible with systems thinking because the cognitive approach is not holistic. As a result, I have not considered, for instance, Belkin's ASK model (see section 3.3.2) as a framework in any of my studies. Nevertheless, the model highlighted the requirement that information systems must support users not only in the retrieval of information but also in crystallizing the information problem—a notion that is relevant (and important) beyond the specific model.

One may claim that accepting a diversity of theoretical traditions would stand in the way of creating a cumulative body of research and that this would be disadvantageous to HIB research, which is already highly divergent. A theoretical tradition, however, is a progeny of a worldview. Therefore, to develop a single theoretical tradition for HIB calls for all scholars to share a similar worldview, which is an unreasonable requirement. One unique theoretical tradition for HIB can be suggested only if one incorrectly views theoretical traditions as “neutral” providers of productive tools for research, rather than as embodiments of worldviews. With this approach, scholars can extract from each theoretical tradition the tools that are useful to HIB and put them together to form “the HIB theoretical tradition.”

This pragmatic view has been expressed by various scholars. Wilson (2003), for example, recommended phenomenology as a theoretical tradition for HIB because of the “tools” it provides. Similarly, Bates (2005) built her view of information on the “productive metatheory” of evolutionary psychology. Hjørland (2005b) expressed the most pragmatic view (coming from a pragmatist stance) when he required that theoretical traditions be introduced only if their usefulness is demonstrated:

It is important to emphasize that knowledge about different positions in the philosophy of science is not an aim in itself. If a position has no potential to contribute to the further development of [library and information science] it is principally of no interest to us. ... If a new position

should be introduced into LIS, it should be demonstrated what new arguments this position is capable of contributing compared with arguments that have already been put forward. Also, I claim that if researcher X is influenced by a particular position, then this should somehow be visible in X's publications. If a position makes no visible difference in research output, then this position cannot be said to be important. (156)

It seems, therefore, that having multiple theoretical traditions in HIB is unavoidable. Zwadlo (1997) drew a more sweeping conclusion. Reviewing a few proposals advanced by various library and information science (LIS) scholars who were seeking *the* theoretical tradition for HIB, he argued that the scholars had been promoting theoretical traditions of their choice, but there was no logical way to choose among these competing traditions. Therefore, he maintained, LIS did not have, and did not need, its own philosophy. Bates (2005) also advocated a plurality of theoretical traditions and "argued that the several metatheories driving research in information seeking each have much of value to offer, and should not be placed in a life or death struggle for dominance in our thinking and research."

One may claim that this diversity of theoretical traditions would prevent the convergence of HIB research. However, the opposite might materialize if HIB researchers understood the various theoretical traditions and their roots. Then, the diversity of traditions could support convergence because scholars would understand the positions of their colleagues and could relate them to their own positions. In fact, the theoretical traditions that HIB researchers follow could serve as the infrastructure for developing a cumulative body of research and bringing a measure of convergence to it. In addition, one may suggest that the various interpretations of basic concepts and the motivation among HIB researchers to introduce new approaches to research and new concepts or phenomena are significant barriers to a cumulative research body (see section 6.4). An open and explicit guidance by theoretical traditions could reduce fragmentation by providing foci around which studies would converge. This way, a new concept or research approach could be connected to existing ones through the theoretical tradition involved. The "Related Literature" section in a research report would address not only the literature on the study's topic, but also the tradition employed through an analysis of other studies guided by it, or of the use of closely related theoretical traditions. Such analysis would point to the multidimensional place of the new study among previous ones. This way, the theoretical traditions could create a network in which research projects would be the nodes.

Generally speaking, knowledge and understanding of theoretical traditions would support the conceptual growth of the field. This growth could happen in several ways. For example, conceptual constructs that have already been created could be associated

with one another through their theoretical traditions, whether similar or different. This association could create a map of HIB constructs that are currently isolated and scattered. The map, in turn, may show current trends and at the same time point to gaps in need of development. Further, researchers who develop new constructs inductively from field studies would be able to place them in one or more theoretical traditions, which in turn will enrich the constructs, since a tradition's foundations might bring new insights and place the constructs in a broad context.

Consider, for example, the concept *information grounds*, that is, "environment[s] temporarily created when people come together for a singular purpose but from whose behavior emerges a social atmosphere that fosters the spontaneous and serendipitous sharing of information" (Pettigrew 1999, 811). Writing later as Karen Fisher (2005), she explained that she drew upon social constructivism to develop the information grounds theory. This alliance immediately points to the social and cultural forces that shape information grounds and the language used to produce this social atmosphere.²⁷ Investigations in these directions would enrich the theory.

Related to this support, theoretical traditions could help researchers determine what is central to HIB and what is peripheral. For instance, holistic traditions would advocate an important position for context in HIB studies, while reductionist ones would focus on well-defined, clearly isolated aspects of behavior, such as cognitive styles and gender. Clearly, this would not bring about a common notion of what is central to HIB. The differences among the notions and their roots, however, would be understood rather than viewed as idiosyncratic.

The distinction between the important and the marginal would support individual researchers as well when they contemplate what phenomenon to study and what research questions to formulate.²⁸ Similarly, finding one's own worldview and the compatible theoretical tradition is essential to the development of a sound and consistent research agenda because stable philosophical foundations, rather than trendy research approaches, would guide its development. In addition, having a philosophical self-identity makes it possible to position oneself in relation to other scholars. This awareness, in turn, can improve a researcher's understanding of her colleagues, which would increase the efficacy of interaction with them. As a result, she might gain new insights through learning from others' work by, say, translating new ideas to her own stance, including those ideas that would seem unacceptable at first sight. Further, exploring the fundamentals and nuances of a theoretical tradition would lead to a comprehensive yet fine-grained view of the specific field of study. Such a view would create a structure to support researchers when they encounter challenging situations. This structure would point to possible directions in which solutions can be found.²⁹

In summary, attention to theoretical traditions and self-awareness of those that are compatible with one's own worldview would support a systematic and stable development of a rich and diverse conceptual body in HIB.

8.4 Theoretical Traditions in Human Information Behavior: Conclusions

Theoretical traditions from the natural sciences, social sciences, and the humanities have influenced HIB research. Some scholars claim that this plurality stands in the way of developing a cumulative body of research. In fact, it has the potential to create a kernel around which HIB research can converge. Moreover, it is inevitable. Convergence can take place only when HIB researchers are knowledgeable about theoretical traditions and find their own approach. Today, as several scholars have pointed out, most HIB researchers pay no attention to philosophical and theoretical foundations (e.g., Budd 2005; Vakkari 2008). Scholars' disinterest in theoretical traditions is a significant barrier to bringing some convergence to HIB research.

Given the benefits that a community aware of theoretical traditions could offer, why has the situation not changed? Why is the number of researchers who anchor their work in philosophical foundations relatively small? One may claim that the field is still young and has not established itself on the conceptual level. The ever-increasing number of theoretical traditions in the social sciences and the humanities may also be a reason that HIB researchers avoid them altogether instead of constantly keeping abreast of new developments. In addition, because of its short history, information science has not created a culture in which philosophical foundations are of interest. These factors are indeed constraints to the growth of interest in theoretical traditions among HIB researchers.

Another reason for this disinterest is the reward system applied in the academic world, particularly in North America. This domain has turned into a market in which scholars compete for research support and recognition, with productivity used as the basic criteria for promotion and other rewards. The value of scholarly work is measured quantitatively, which encourages an emphasis on the quantity of scholarly output.³⁰ In the United States, public universities have been thrown into the free market because state support of higher education is on a steady decline. As a result, scholars have the additional responsibility of bringing money to their institutions. Under these conditions, professors are primarily concerned with writing research grants and papers. Given this drive to produce, it is difficult to contemplate and reflect on philosophical issues because this exercise requires much time and does not bring immediate results. Being proficient in the theoretical traditions of HIB would not increase the number

of papers one could write during a given period of time—in fact, it may reduce it—and it is not likely to increase one's chances of successfully competing for a research grant.

To encourage appreciation for philosophical understanding and in-depth conceptual work requires a transformation of the reward system so that a professor's intellectual work is recognized according to its quality and contribution to society, whether through direct or indirect means. While achieving such a system is a worthy goal, its attainment is a long-term project. In the meantime, academic institutions can raise interest in philosophical foundations among future HIB researchers through their doctoral programs, which should include at least one required course in the philosophy of social science. Doctoral studies are the formative years of new researchers, and the best time to develop a scholarly identity. In fact, the responsibility of doctoral students is to develop their individual expertise and approach to scholarship. Being exposed to the various theoretical traditions in social science would support this development and might even generate an interest in them in their future work.

That is, instilling appreciation for theoretical traditions in future researchers is the most promising way for HIB to cope with the lack of interest in philosophical issues among researchers at this time. Such an appreciation may further the conceptual growth of HIB as well as its convergence.