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Twenty years ago, following my keynote address at an international evaluation conference, I was approached by a man who said he had something for me. He handed me a five-volume report entitled *The International Response to Conflict and Genocide: Lessons from the Rwanda Experience.* The man, Niels Dabelstein, had chaired the Steering Committee for the evaluation on behalf of the Danish International Development Agency (DANIDA), the development cooperation division of the Danish Ministry of Foreign Affairs. The evaluation report presented a comprehensive, independent review of the events leading up to the genocide that occurred in Rwanda between April and December 1994, during which some 800,000 people were killed.

The report also included an evaluation of the subsequent international humanitarian response. The international assistance for emergency relief to Rwandan refugees and displaced persons cost \$2.3 billion US dollars (inflation adjusted). The United Nations Peacekeeping effort and related activities cost more than that over several years leading up to the genocide. The peacekeeping mandate was aimed at keeping the antagonistic groups apart in an attempt to prevent violence while efforts to negotiate an end to the conflict were underway. However, no effort was made to bring ordinary people from the opposing groups together for dialogue, mutual understanding, and higher education—where higher actually means *higher*, deeper, broader, more meaningful, and higher impact, and such might actually undercut the escalating momen-

tum towards violence. Millions of dollars went into reconciliation efforts after the genocide, a stark contrast to the lack of resources devoted to preventing genocide through reconciliation, thinking-education, and grassroots engagement *prior* to the genocide

When I first began reading Elizabeth Minnich's book entitled *The Evil of Banality: On the Life and Death Importance of Thinking*, it took me back to the Rwanda report. Concerned, ultimately, with what can be done to prevent genocide, Minnich examined the Rwanda genocide as one of her many case examples. She enquired into how it is possible for human beings to engage in genocide, slavery, sexual trafficking of children, systematic rape, mass torture, and other acts of violence in the vast human arsenal of brutal and deadly acts of oppression and exploitation. She concluded that such acts are made possible by *thoughtlessness*—literally, *a failure to think*. Thoughtlessness disables conscience, which can make it possible for otherwise decent people to participate in systematized extensive evils such as genocide, human trafficking, and grinding exploitation of the most vulnerable.

She took on the contrary premise that the challenge is to change hearts, not minds; that people need to be made to care; and that feelings matter more than thinking in explaining behavior. Minnich argued that we need to think about our feelings.

Thinking is how we make sense of what is happening, what is before our eyes, in our memories, in our hearts and bodies. It is the activity of consciousness, of awareness, and we cannot develop consciences that attune us well to the world and others if we are unaware of—inattentive to—our thinking. Nor, when we become aware, can conscience develop further to become illuminating (if never a certain guide) without reflexivity and refection, without our being thoughtful even about our own thinking.

Love and care can go as wrong as reason when we are not thinking, being attentive to, reflecting. We are as responsible for thinking about our feelings as anything else (p. 47).

WHAT IS THINKING?

With all this attention around thinking, the question naturally arises as to precisely what it is. Minnich explores what thinking is from a philo-

sophical perspective. She acknowledges the problem of definition and offers different perspectives on and examples of how thinking is manifest. However, in the end, she offers no operational definition. In the dominant paradigm of social science research, this is a problem. Concepts only become real and meaningful when they have been operationalized, which means that the concept can be standardized and measured quantitatively.

The SAGE Encyclopedia of Social Science Research Methods (Lewis-Beck, Bryman, and Liao, 2004), in an entry on operationalization, affirms the scientific goal of standardizing definitions of key concepts. It notes that concepts vary in their degree of abstractness, using, as an illustration, the concepts human capital versus education versus number of years of schooling as moving from high abstraction to operationalization. The entry then observes:

Social science theories that are more abstract are usually viewed as being the most useful for advancing knowledge. However, as concepts become more abstract, reaching agreement on appropriate measurement strategies becomes more difficult (Mueller, 2004, p. 162).

This is interesting. Abstraction is *useful* for advancing knowledge and building theory. *Thinking* is abstract, to be sure, and its very quality of abstraction makes it difficult to reach agreement on how to measure (operationalize) it. The entry continued:

Social science researchers do not use [operationalization] as much as in the past, primarily because of the negative connotation associated with its use in certain contexts (p. 162).

The entry discusses the controversy surrounding the relationship between the concept of intelligence and the operationalization of intelligence through intelligence tests, including the classic critique that the splendidly abstract concept *intelligence* has been reduced by psychometricians to what intelligence tests measure. Here we have a dramatic manifestation of banality, taking a critically important idea—intelligence—and reducing it to what psychometricians can measure on a universal standardized test. Increasingly, researchers have recognized this slippery slope to banality.

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Operationalization as a value has been criticized because it reduces the concept to the operations used to measure it, what is sometimes called "raw empiricism." As a consequence, few researchers define their concepts by how they are operationalized. Instead, nominal definitions are used...and measurement of the concepts is viewed as a distinct and different activity. Researchers realized that measures do not perfectly capture concepts, although . . . the goal is to obtain measures that validly and reliably capture the concepts (p. 162).

It appears that there is something of a conundrum here, some tension between social science theorizing and empirical research. Yet a second entry in the *Encyclopedia of Social Science Research Methods* sheds more light on this issue.

Operationalism began life in the natural sciences . . . and is a variant of positivism. It specifies that scientific concepts must be linked to instrumental procedures in order to determine their values. . . . In the social sciences, operationalism enjoyed a brief spell of acclaim. . . . Operationalism remained fairly uncontroversial while the natural and social sciences were dominated by POSITIVISM but was an apparent casualty of the latter's fall from grace [emphasis in the original] (Williams, 2004, pp. 768–69).

The entry elaborates three problems with operationalization, each of which applies to the challenge of defining thinking. First, "underdetermination" is the problem of determining "if testable propositions fully operationalize a theory" (p. 769). Examples include concepts such as homelessness, poverty, and alienation that have variable meanings in different social contexts. What "homeless" means varies historically and sociologically.

The second problem is that objective scholarly definitions may not capture the subjective definition of those who experience something. *Poverty* offers an example: What one person considers poverty another may view as a pretty decent life. The Northwest Area Foundation, which has as its mission *poverty alleviation*, has struggled to try to operationalize poverty for outcomes evaluation; they found that many quite poor people in states like Iowa and Montana, who fit every official definition of being in poverty, did not even see themselves as poor much less "in poverty." The third is the problem of disagreements among social scientists about how to define and operationalize key con-

cepts. The second and third problems are related in that one researcher may use a local and context-specific definition to solve the second problem but that context-specific definition is likely to be different from and conflict with the definition used by other researchers inquiring in other contexts.

One way to solve the problem of definition is to abandon the search for a standardized and universal operational definition and treat thinking as a "sensitizing concept."

THINKING AS A SENSITIZING CONCEPT

Qualitative sociologist Herbert Blumer is credited with originating the idea of the "sensitizing concept" to orient fieldwork. Sensitizing concepts in the social sciences include loosely operationalized notions such as victim, stress, stigma, and learning organization that can provide some initial direction to a study as one enquires into how the concept is given meaning in a particular place or set of circumstances (Schwandt, 2001). The observer moves between the sensitizing concept and the real world of social experience giving shape and substance to the concept and elaborating the conceptual framework with varied manifestations of the concept. Such an approach recognizes that while the specific manifestations of social phenomena vary by time, space, and circumstance, the sensitizing concept is a container for capturing, holding, and examining these manifestations to better understand patterns and implications.

Minnich tells me that Hannah Arendt wrote of "illuminating insights," ideas that ask to be brought into conversation. Sensitizing concepts constitute illuminating insights about something that deserves attention and, to be sure, conversation.

Consider the notion of *context*. Any particular research, evaluation, program, or event is designed within some *context*, and we are admonished to take *context* into account, be sensitive to *context*, and watch out for changes in *context*. But what is *context*? In 2009, the theme of the annual conference of the American Evaluation Association was "Context and Evaluation." Animated discussions ensued among those attempting to operationally define context and those comfortable with contextual variations in meaning. Those seeking an operational defini-

tion of context ranted in some frustration about the ambiguity, vagueness, and diverse meanings of what they, ultimately, decided was a useless and vacuous concept. Why? Because it had not been (and could not be) operationally defined—and they displayed a low tolerance for the ambiguity that is inherent in such sensitizing concepts.

TYPES OF THINKING

One way we deal with the ambiguity of general concepts is to attach an adjective to specify a type. If we're dealing with context, we might begin by distinguishing types of contexts: cultural, political, economic, or societal. We might distinguish urban, rural, or suburban contexts.

Minnich, in the opening chapter of this book, usefully distinguishes "Thinking, with a capital 'T,' and thinking, with a lowercase 't.'" Thinking, capital T, includes our capacity to think about thinking. She explained that she would capitalize Thinking about thinking and "use lowercase for all the other ways our minds move," including what she calls "'middle world' thinking, i.e., developed, legitimated, field-related modes . . . because Thinking in a sense surrounds all other modes, enabling from 'below' and reflecting from 'above,' outside."

That got me thinking about types of thinking. Table 2.1 offers a "Thinking Typology" to display the great variety of ways thinking is delineated. I've limited the inventory to ten in each category. The typology is nonhierarchical and nonsequential. No sequence or hierarchy is intended across the categories either horizontally (across the rows) or vertically (within the columns). Nor is the typology alleged to be either comprehensive or exhaustive. The purpose of the typology is simply to suggest the many ways we differentiate thinking (lowercase "t"), all of which, I want to suggest, are ways of directing us away from Thinking, capital "T."

Minnich's overarching premise is that capital T/hinking can be an antidote to extensive evil and its manifestations in such atrocities as genocide and slavery. "T/hinking can also be an antidote to the doing of violative harm to many over time, as when a great wrong is normalized, e.g., child labor and human trafficking."

The capital T/hinking versus lower t/hinking was new to me, and as I have worked with it in the course of co-editing this volume, I have come

Table 2.1. A Select Inventory of Thinking Types

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Thinking processe s	Thinking purposes and applications	Thinking in disciplinary specialization s	Instrumental thinking for action	Thinking predilections	Thinki ng situati ons
deductive	strategic thinking	sociological	engineering thinking	zero-sum	individu al reflectio n
inductive	design thinking	political	legal thinking	bottom-line	group reflectiv e practice
abductive	systems change thinking	economic	therapeutic thinking	argumentative	facilitate d thinking
counterfa ctual	evaluative thinking	anthropological/ cultural	medical thinking	skeptical	teaching thinking
comparati ve	entrepreneurial thinking	ecological	managerial thinking	cynical	coachin g how to think
dialectical	development thinking	psychological	leadership thinking	hopeful	invited feedbac k
hypotheti cal	policy analysis	philosophical	sports thinking	selective perception	uninvite d feedbac k
critical	planning	cross- disciplinary/ interdisciplinary	culinary thinking	evidence-based	debates
creative	implementation	transdisciplinary	community organizing thinking	contextual	dialogue s

to appreciate its profound importance. I have spent a lifetime doing lower t/hinking and very little time doing capital T/hinking. Nor is capital T/hinking just for philosophical inquiry; it is for human inquiry. It is for realizing our human potential for T/houghtfulness, mindfulness, and consciousness.

Adjectival t/hinking

In this age of specialization, highly specialized forms and types of thinking are proliferating. I daresay you can take any adjective or noun—any of thousands in the linguistic ocean—and proclaim a new approach to thinking. Try it for yourself, as I will hereby demonstrate. I opened my 1,664-page, hardbound, unabridged Random House Dictionary of the English Language (1966) to a random page using a random number generator: page 683 covers "hookworm" to "hor."—abbreviation for horizon.

The page includes "hopeful" and "hopeless," already well-established types of thinking. Applying hopeful thinking, we can conjure some new types of thinking, each worthy of widespread attention. Let the social media universe contemplate these additions to the thinking arsenal derived from just the first of three columns on the page.

What's my point? In collaborating on this book I have come to realize that I have spent my professional life on forms of what Minnich calls lower t/hinking. Specialized thinking, like evaluative thinking or strategic thinking, can play an important role in fine-tuning the application of capital Thinking. What I have come to appreciate, however, is that the rigor of t/hinking depends on applying fundamental T/hinking principles and processes within the small t arena.

Adjective or noun

Hookwormy—blood sucking nematode worms Hookwormy thinking—insidious, draining that cause severe anemia

Hooky-full of hooks

Hooperating—a rating of radio and television shows based on the statistical study of the percentage of sets in a sampling that are tuned to specific program at a given time

Hoopla—speech or writing intended to mislead or obscure an issue by creating excitement and commotion

Hoopsnake—any of several harmless snakes fabled to take its tail in its mouth and roll along like a loop

Type of thinking

argumentation that sucks the life out of deliberation

Hooky thinking—fishing for weaknesses in another's perspective, catching at weakness and dragging it to the surface for exposure and digestion

Hooperating thinking—adopting whatever views are predominant among people in a specific group at a specific time (a specific type of groupthink)

Hoopla thinking—deceptive logic and misleading statements aimed at generating emotional reactions creating commotion

Hoopsnake thinking—circular arguments that keep getting repeated over and over

RIGOROUS THINKING

Operationalization of key concepts constitutes rigor in measurement, which is why it is so important. More generally, rigor is synonymous with excellence in research. Since this chapter began with concern about defining thinking, let's look at definitions for "rigor."

Rigor. Unyielding or inflexible; the quality of being extremely thorough, exhaustive, or accurate; being strict in conduct, judgment, and decision (Oxford Dictionary); scrupulous or inflexible accuracy or adherence (Random House Dictionary)

Measurement rigor. The underlying psychometric properties of a measure and its ability to fully and meaningfully capture the relevant construct; the fact that data have been collected in essentially the same manner, across time, the program, and jurisdictions, adds methodological rigor; the reliability and validity of instruments (Weitzman and Silver, 2012)

Research design rigor. The true experiment (randomized controlled trials) as the optimal (gold standard) design for developing evidence-based practice (Ross, Barkaoui, and Scott, 2007)

Analytical rigor. Meticulous adherence to standard process; scrupulous adherence to established standards for the conduct of work (Zelik, Patterson, and Woods, 2007, p. 1)

Rigor mortis. Latin: rigor "stiffness," mortis "of death"—one of the recognizable signs of death, caused by chemical changes in the muscles after death, causing the limbs of the corpse to become stiff and difficult to move or manipulate

Research rigor mortis. Rigid designs, rigidly implemented, then rigidly analyzed through standardized, rigidly prescribed operating procedures and judged hierarchically by standardized, rigid criteria, thereby manifesting rigorism at every stage

Rigorism. Extreme strictness; no course may be followed that is contrary to doctrine (Random House Dictionary)

Research rigorism. Technicism—reducing research to "the application of techniques or the following of rules" (Hammersley, 2008b, p. 31)

The problem with how research approaches rigor is the focus on methods and procedures as the basis for determining quality and rigor. The notion that methods are more or less rigorous decouples methods from context and *the thinking process* that determined what questions to ask,

what methods to use, what analytical procedures to follow, and what inferences to draw from the findings. Methods do not ensure rigor. A research design does not ensure rigor. Analytical techniques and procedures do not ensure rigor. Rigor resides in, depends on, and is manifest in rigorous thinking—about everything, including methods and analysis. This means valuing intellectual rigor. There are no simple formulas or clear-cut rules about how to do a credible, high-quality analysis. The task is to do one's best to make sense of things. A thoughtful researcher returns to the data over and over again to see if the constructs, categories, interpretations, and explanations make sense—if they sufficiently reflect the nature of the phenomena studied. Creativity, intellectual rigor, perseverance, insight—these are the intangibles that go beyond the routine application of scientific procedures. These are bedrock elements of rigorous thinking.

Statistical Analysis as Rigorous Thinking

An affirmation of rigor residing in thinking has come from the *American Statistician*, which, in a special issue of the journal, proclaimed that statistics should move from being a rule-bound enterprise to a principles-focused way of making sense of numbers. The four principles promulgated are:

- Accept uncertainty.
- Be thoughtful.
- Be open.
- Be modest (Wasserstein et al, 2019).

This shift from rules to principles, from a focus on procedures to a focus on thinking, constitutes a significant paradigm shift. In concluding this section on rigorous thinking, I offer a reflection from Nobel Prize—winning physicist Percy Bridgman:

There is no scientific method as such, but the vital feature of a scientist's procedure has been merely to do his utmost with his mind, *no holds barred* (quoted in Waller, 2004, p. 106).

CRITICAL REFLECTIVE PRACTICE FOR RESEARCHERS AND EVALUATORS

Research thinking is ever at risk of succumbing to banality through obsessive focus on operationalization and standardization as sources of credibility when, in fact, the focus on replicable procedures increases compliance with recipe following, makes research methods banal, and reduces thoughtfulness. In discussing this with Minnich as we worked on this book, I asked for her thoughts on methodology.

"Methodology" is a nice, fancy word, but "method" is usually what people are actually talking about when they say methodology. So the meaning of methodology can be lost, and if we lose "methodology" in its own right, we lose "the study of the logics of method," the reflective dimension we need to justify a choice of method. Methodology is thinking about choice of methods that will then shape disciplined reasoning and can then help us think about those choices without continuing to be constrained by them. And thinking itself can reflect on limits of methodology (Minnich, personal communication).

This reminds us to think about our thinking and how our thinking is embedded in all we do, especially methodological choices and how we think about what rigor means, "demonstrating rigor" being a core aspiration of researchers. She continued:

Technical languages can become the kind of banal that allows people to do thoughtless on up to evil things. There is a constant risk in doing one of the most basic and important things of which our minds are capable—making categories.

Thinking and language interacting creatively are how we comprehend without reduction, how we retain our own and others' freedom of mind. Limit thinking to knowledge, opinion, belief, and these lock in and become dogmatic—perhaps deadly, certainly deadening, boring. Limit language to the worn coins of cliché, convention, jargon, insider professional language and the same thing happens. The past, the retrospective, smothers the present, the prospective future—and then there are ever more insider/outsider divisions for obvious reasons. Only the already initiated can speak to each other with comprehension. Awful thought . . . and not unfamiliar to any of us.

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We can *think about language* even as we use and are used by it, and that allows us, as Toni Morrison put it, to become aware of "the otherwise invisible bowl within which we swim."

In some ways, I want nothing more than to help awaken, nourish, and make utterly contagious a fine and insatiable love of thinking and its complement, language, among other things, but basically to keep our mind's products from being prisons rather than homes, works of art, tool shops, keys . . . (Minnich, personal communication).

This kind of increased awareness comes from T/hinking.

WHAT THINKING IS NOT

Sometimes we can more definitively specify what something is *not* than what it *is*. Let me expand the landscape of inquiry by including attention to what IT (thinking) is *not*. The 2016 American presidential election was characterized by fabrications, lies, misrepresentations, illogic, character attacks, and a general disregard for facts, data, science, and evidence—patterns carried over into and permeating the Trump Presidency. Politics inevitably involves different opinions. However, as distinguished social scientist, policy researcher, and US Senator from New York Patrick Daniel Moynihan stated: "Everyone is entitled to his own opinion, but not to his own facts." Would that it were so! Instead, we have seen the politics of the big lie resurrected at an unprecedented level:

"If you tell a lie big enough and keep repeating it, people will eventually come to believe it. It thus becomes vitally important for the State to use all of its powers to repress dissent, for the truth is the mortal enemy of the lie, and thus by extension, the truth is the greatest enemy of the State." —Author unknown, often attributed to Joseph Goebbels, Minister of Propaganda, Nazi Germany

Here's the updated, research-based version from Nobel Prize—winning decision scientist Daniel Kahneman in his best-selling book on *Thinking Fast and Slow*:

A reliable way to make people believe in falsehoods is frequent repetition, because familiarity is not easily distinguished from truth. Au-

thoritarian institutions and marketers have always known this fact (Kahneman, 2011).

The rise of social media makes disseminating big lies easier than ever. One consequence highlighted by the *New York Times* editorial board is that "when everyone can customize his or her own information bubble, it's easier for demagogues to deploy made-up facts to suit the story they want to tell.

"That's what Mr. Trump has done. For him, facts aren't the point; trust is. Like any autocrat, he wins his followers' trust—let's call it a blind trust—by lying so often and so brazenly that millions of people give up on trying to distinguish truth from falsehood. Whether the lie is about millions of noncitizens voting illegally, or the crime rate, or President Obama's citizenship, it doesn't matter: In a confusing world of competing, shouted 'truths,' the simplest solution is to trust in your leader. As Mr. Trump is fond of saying, 'I alone can fix it.'

He is not just indifferent to facts; he can be hostile to any effort to assert them. . . . Mr. Trump has changed this game. He has exploited, perhaps better than any presidential candidate before him, the human impulse to be swayed more by story than by fact. As one of his surrogates said recently, 'There's no such thing, anymore, of facts' (*New York Times*, 2012, p. SR10).

We now know from research on how our brains process information that we are vulnerable to *confirmation bias*: the tendency to search for, interpret, favor, and recall information in a way that confirms our preexisting beliefs and prejudices, while giving little consideration to contrary evidence (Kahneman, 2011). In so doing, we mistake the repetition of the same thing over and over as confirmation of its truth. Repetition of the big lie becomes verification of its truth. As if the challenge of thinking clearly and rigorously was not already daunting, *truthiness* has ascended to overshadow truth. *Truthiness*, a term introduced sarcastically by comedian Stephen Colbert (2005), refers to the quality of preferring facts that *feel right* and that *one wants to believe* to be TRUE. No need to worry about actual facts and empirical evidence.

As we inquire into the definition, parameters, nature, applications, implications, and consequences of T/hinking and t/hinking, let's bear in mind what it is not: lying, big or little; manipulation of data to support perceived positions; cherry-picking evidence to distort the full truth;

illogical and unwarranted conclusions; intentionally creating and disseminating false "news"; treating opinions as facts; *truthiness*; and fabricating evidence to support ideological and political positions. And that's just the short list. We may not agree on a precise definition of thinking, but perhaps we can agree on what it is not.

NEVER AGAIN

The promise *Never Again!*, central to the message and mission of the Holocaust Museum, was the title of Meir Kahane's 1972 best-selling book about the Holocaust. It is an aspiration the world has failed to realize. Rwanda. Darfur. Congo. Central African Republic. Syria. Rohingya in Myanmar. And the future?

While working on this book, I participated in three major conferences on various aspects of and likely consequences of climate change. Serious, knowledgeable, empirically oriented, and sober-minded experts from around the world, working in a variety of sectors and engaged in diverse arenas of environmental, economic, and development research, conclude that by the middle of the twenty-first century as many as twenty countries could be gone, sixty major cities could be underwater or under threat, and 1.5 billion people will likely be displaced. They believe that not only is humankind in danger from climate change but that climate change will lead to massive violence on a scale never before seen. Unless things change, the vision of *Never Again!* must yield to the reality of *Again and Again and Again...*

I close this reflection with a heightened sense of *urgency*. The latest projections and scenarios about the effects of climate change on humanity globally, and the likelihood of extensive violence stemming from massive displacement of people, affirm and magnify the life and death importance—and *urgency*—of thinking and acting.

My journey through the lowercase t/hinking landscape began with T/hinking about T/hinking. After extensive time in the t/hinking world, I find myself pulled back to T/hinking, and though having started there, I know that place for the first time and in a new way.

In the course of working on this book, I've reviewed a great deal of the thought that has been and is being given to thinking, everything from conceptual work to empirical research to personal guidance to tools for teaching. What I have found absent from that vast landscape is attention to the life-and-death importance of thinking in preventing extensive violence. That niche—the niche of this book and the cumulative work of Hannah Arendt, Elizabeth Minnich, and those with whom they have engaged—is the territory you now enter for a deeper thinking journey. To prepare for that journey, I invite you to contemplate some reflective practice questions that emerge from thinking about thinking.

REFLECTIVE PRACTICE QUESTIONS

- 1. What language about thinking, terminology, adjectives, categories, kinds, or types predominate in your world(s)? With what consequences for how you think about thinking?
- 2. What mantras, messages, admonitions, proverbs, quotations, or other guidance about thinking is embedded in your mind? (Or on Post-it notes on your office walls?) From where do these originate? If you bring them forth and examine them, think about them, and what do you think?
- 3. As you enter into this collection of thoughts about the life-and-death importance of thinking, what are your own baseline premises about the connection between thinking (actually, thoughtlessness) and mass violence? What questions do you bring to this inquiry?

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