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## Beyond Backward Design, or, By the End of This Article, You Should Be Able to Imagine Some Alternatives to Learning Objectives

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## Beyond backward design, or, by the end of this article, you should be able to imagine some alternatives to learning objectives

Michael McCreary

### Abstract

If the challenges of teaching and learning do not amount to simple empirical questions about effective pedagogical strategies but are instead complex “wicked problems” that may be impossible to solve, where does that leave the practice of backward design? Drawing on the intellectual history of instructional design, I argue that the use of learning objectives, in particular, may not meet the comprehensive challenges of educational development today. Rather than rehashing perennial critiques that learning objectives overly instrumentalize the educational process or are not sufficiently student-centered, I ask what is missed by focusing on what students will know and be able to do by the end of a course. Especially in times of tragedy or crisis, the forward-looking nature of goals and objectives can obscure the importance of learning to be in the present moment and to recognize what is already known. I conclude by suggesting that a pedagogy of non-striving is able to bring intentionality to the time students and teachers spend together without relying on an explicit enumeration of aims.

**Keywords:** backward design, learning objectives, design thinking, curing and coping, tragedy, wicked, emergent, non-striving

## The Problem Then

In “What’s the Problem Now?” Randall Bass (2020) asks his reader to see teaching not only as an ongoing problem to be investigated but also as a “wicked problem” that may be impossible to solve. But what is a so-called “wicked” problem? In my view, the concept allows Bass to take an ambivalent stance towards his earlier essay, “The Scholarship of Teaching: What’s the Problem?” (1999). On the one hand, wicked problems may be viewed simply as a *type* of problem, such that classifying learning as a wicked problem would seem a natural extension of Bass’s prior invitation to “look at teaching from the perspective of learning” (1999, p. 8). On the other hand, we may wonder about the extent to which wicked problems are problems at all. Wicked problems are defined by their ambiguity, their boundlessness, their intractability, their uniqueness. Wicked problems are not the same as difficult problems: difficult problems may have no solution in practice, but with wicked problems it is unclear *what would count* as a solution in theory. Difficult problems imply a deficit of resources or technology, whereas wicked problems imply a deficit of concepts or imagination. In these ways, wicked problems are not a type of problem but rather a kind of anti-problem, a red herring that looks like a problem but cannot or should not be treated as one, given that they cannot be “solved” in the usual ways.

In the 20 years since Bass published “The Scholarship of Teaching: What’s the Problem?” an enormous institutional infrastructure has been erected to solve the problem of teaching on college campuses. I want to interrogate one small but vital piece of this institutional machinery: the practice of backward design. By backward design, I mean the general approach to instructional design that begins with identifying course learning goals and objectives, then establishes standards of evidence to determine whether those goals and objectives have been met, and finally tailors instructional activities towards these goals and objectives.

While this approach—definitively stated in Grant Wiggins and Jay McTighe’s *Understanding by Design* (1998)—became a commonplace among university centers of teaching and learning (CTLs) over the last 20 years, it is decidedly not a twenty-first-century idea. The use of behavioral objectives in learning theory has its roots in twentieth-century educational psychology, which sought to undertake quantitative research on human and animal learning (see Thorndike, 1904). Ralph Tyler formalized the process of specifying educational outputs in *Basic Principles of Curriculum and Instruction* (1949). The “Tyler rationale” proposed four guiding questions for instructional design:

1. What educational purposes should the school seek to attain?
  2. What educational experiences can be provided that are likely to attain these purposes?
  3. How can these educational experiences be effectively organized?
  4. How can we determine whether these purposes are being attained?
- (Tyler, 1949, p. 1)

The popular use of this method grew throughout the 1950s and 1960s during the “programmed instruction” movement, facilitated in large part by B. F. Skinner’s “The Science of Learning and the Art of Teaching” (1954) and Robert Mager’s *Preparing Instructional Objectives* (1962). While others have traced the intellectual history of the instructional design process (Dick, 1987; Reiser, 2001; Shrock, 1995), what interests me about Wiggins and McTighe’s restatement of Tyler’s ideas 50 years later is the marked difference in their respective receptions. The Tyler rationale was greeted with philosophical criticism from educational researchers who feared that the “lockstep” means-ends approach to instructional design overly instrumentalized the educational process (Fogarty, 1976). Moreover, critics were worried that Tyler’s approach did not provide adequate principles for selecting educational purposes, ceding pedagogical authority entirely to the disciplinary expertise of faculty.

Fifty years later, however, the instrumentality of Tyler's rationale—once seen as its greatest shortcoming—became its biggest asset. By the time Wiggins and McTighe were writing in 1998, it had become generally acceptable to refer to students as clients and to compare teachers with other design professionals (such as architects and engineers) who must design their services with their clients' ends in mind. The genius of the new backward design rhetoric was to posit instrumentality as the solution to the problem of conservatism in curriculum design.

Ostensibly, backward design was a process targeted at the stuffiness of an acritical intellectual tradition determined to teach what has always been taught without examining why. Wiggins and McTighe (1998) wrote:

Why do we describe the most effective curricular design as “backward”? We do so because many teachers *begin* with textbooks, favored lessons, and time-honored activities rather than deriving those tools from targeted goals or standards. We are advocating the reverse: One starts with the end—the desired results (goals or standards)—and then derives the curriculum from the evidence of learning (performances) called for by the standard and the teaching needed to equip students to perform. (p. 8)

By suggesting that teachers *either* reproduce the canon without considering educational aims at all *or else* explicitly state their objectives at the outset, the rhetoric of backward design quickly permeated the nascent scholarship of teaching and learning that sought to rationalize the pedagogical process. Happily, this process also aligned with the service-oriented model of most CTLs, allowing educational developers and instructional designers to craft their professional identities around the established role of the technical consultant. Defining the problem of teaching as a design challenge allowed for the creation of a class of experts who knew how to capitalize on the supposed instrumental nature of the educational venture.

The institutional infatuation with backward design was reinforced by keen administrative interest in defining learning objectives, which played a critical role in facilitating assessment and evaluation. The formation of the Quality Assurance Agency for Higher Education in the United Kingdom in 1997, along with reforms in regional accreditation associations in the United States during the same period, tied learning objectives to educational audits and curriculum standardization efforts (Gaston, 2014, Chapter 5; Maher, 2004). Folders of learning objectives became a mainstay in dean's office filing cabinets, and seminars on using appropriate action verbs—for example, by playing the *Learning Outcomes Game* (Coxall et al., 2001)—received prompt authorization from university administrators.

## Emergent Critiques

Critiques of using learning objectives in curriculum design are as old as the Tyler rationale itself. These range from questions about who is qualified to determine objectives to the challenges of accounting for longer-term educational goals that cannot be assessed within the timeframe of a single course. But perhaps the most enduring critique relates to backward design's lockstep reasoning, which assumes a strict means-ends pedagogical logic (Fogarty, 1976). This critique is perhaps most forcefully expressed by Hussey and Smith (2002, 2003), who argue that learning outcomes have become so indebted to the bureaucratic requirements of specificity and measurability that they have become largely irrelevant to actual classroom practice. According to the bureaucratic picture, education is a fundamentally instrumental process in which students are intended to achieve the goals their instructor has defined for them in advance. The standard critique of this picture is predicated on at least two interrelated concerns.

First, there is the worry that enumerating objectives artificially delimits what can be gained from a course. By channeling attention

towards a few predefined targets, room for improvisation and spontaneity in the classroom is restricted. In many ways, beginning with learning objectives assumes a “banking model” of education, in which a content expert’s role is to “deposit” information and skills into their students (see Freire, 1968/2014). We would rarely suggest that the *research* process begin with a firm statement of objectives; rather, the research process generally begins by formulating a research question. As such, it assumes that the appropriate time for instruction is at the *end* of a research process, once the instructor’s bibliography and theses are already worked out. Even where so-called higher-order thinking skills such as creating, analyzing, and evaluating are involved, students’ energies are often directed in predefined directions that delimit the kinds of creations, analyses, and evaluations that will count as acceptable. Finally, the statement of learning objectives assumes that—while individual students may find value in the course in different ways—there are a certain number of core concepts or skills that everyone in the class ought to master. This requirement that learning goals apply to everyone can, in some cases, lead to vaguely written objectives that are so broad as to be unhelpful.

Second, there is the fear that stating objectives up front can undermine the value of the students’ own purposes for taking the course. In courses that value the transmission of established knowledge less than facilitating an intellectual adventure or open-ended process of inquiry, instructors are likely to be less comfortable with dictating the goals of the course to their students. Such dictation gives students the impression that their objective is—above all—to learn what their instructor wants them to learn, as opposed to learning how to make determinations of value for themselves. To this extent, the statement of learning objectives only serves to perpetuate a climate of academic performativity. Students have become remarkably good at jumping through academic hoops. Enumerating learning objectives sets the scene for performative hoop-jumping that has become all too familiar in many institutions today. It reinforces the idea that rule-following is

the path to success and foregrounds the achiever as opposed to the critical thinker as the model student.

There have been a variety of responses to these two interrelated worries. Some have suggested that they point to underlying deficiencies with backward design itself and have proposed alternative ways of structuring curricula (see Mintz, 2021). These include frameworks such as ADDIE, first developed by Florida State University in 1975, which claims to be more student-centered because it begins by analyzing the learners and their environment before moving onto setting concrete objectives. It also includes facets of inquiry-based learning, project-based learning, and experiential education, which tend to be more process-oriented and allow opportunities for students to arrive at their own questions and determine their own objectives. Others have suggested that starting with learning objectives is not the problem *per se* but only that the objectives are often poorly written and, in particular, suffer from being overly narrow (Hussey & Smith, 2002, 2003). The solution in this case is so-called emergent learning objectives, which are always provisional and may be revised over the duration of the course (see Megginson, 1996). Because emergent objectives are always in flux, they can be responsive to organic shifts that occur in the development of a course based on student interests, classroom dynamics, or even current events. Moreover, these objectives may be created with students to allow them to take co-ownership of their collective learning process.

In my view, the differences among these responses to backward design are not as profound as they may seem. In fact, many of these strategies are implemented primarily on a pedagogical as opposed to a curricular level. Instructors may turn to inquiry-based learning, for example, in order to meet certain objectives they have already set through a backward design process (see Hendrickson, 2006). Insofar as they are responses to the worries outlined above, however, they all attempt to reform backward design's use of learning objectives by aligning them with the values of student-centered learning, whether by determining objectives later in the design process



(or revisiting them throughout the course), by allowing students some degree of autonomy in setting their own objectives (either individually or collectively), by broadening the scope of objectives to allow room for more natural spontaneity, or by some combination of these.

While I believe these attempts at reform are probably better than none, I nevertheless find them less than fully satisfying. In particular, their commitment to modifying as opposed to relinquishing the role of learning objectives makes it difficult for them to get out from under the shadow of backward design. Take the case of emergent learning objectives, for example. It turns out that *emergence* has become something of a buzzword in education as elsewhere. The world is changing ever faster, the story goes. Technology. Unpredictability. Precarity. Evolution. The weight of the term *emergence* in this context generally means that the sheer pace of change prevents us from really knowing what we're doing or where we're heading anymore, but that we're going to keep on trying to figure it out anyway. As such, *emergence* becomes a conceptual scapegoat that gets called in to do damage control when our predictions go awry. "We couldn't have known—*emergence*."

Bass mobilizes similar terminology when he notes that the field of educational development is now remarkably savvy at "designing for impact." He writes, "For all of the efficacy of the learning assessment movement, it runs the risk of having a limiting effect, bounding learning design around predictable and measurable outcomes" (2020, p. 23). To overcome this limitation, he suggests a new type of design process, elaborated by Pendleton-Jullian and Brown (2018) as "designing for emergence." In designing for emergence, unpredictability, flexibility, and experimentation are built into the model itself, as opposed to the rigidity of a simple input-output workflow. Designing for emergence is not the same as contingency planning—that is, it does not simply enumerate a number of different plans that may come into play as certain variables ebb and flow. Instead, variability just *is* part of the design.

My qualm with the word *emergence* is that it is often mobilized in an attempt to rescue a broken or outdated concept. When our traditional design process no longer produces the desired results, we start to design for emergence. When our learning objectives no longer suit our pedagogical priorities, we use emergent learning objectives. But it is unclear to me whether adding a qualifier to these terms addresses the root of the issue. Just as we saw how the word *wicked* was cleverly mobilized to preserve the concept of *problem* while at the same time moving away from it, we may ask whether designing for emergence is really a new method of design or whether it is more akin to a critique of the design process itself.

Is a learning objective still an objective if it is always provisional and contingent? The thinking seems to be that we simply *must* have learning objectives but also that we probably *should not* have learning objectives (because of the worries outlined above), so we invent a less objective-like version of objectives that we call emergent. But why invest more conceptual energy in shoring up fundamentally outmoded ideas? The buzzword serves as cover for the fact that what looks like a new innovation in curricular design is really just a muddled concept trying to serve contradictory purposes. Of course, I don't mean to imply that it's not possible to use emergent learning objectives. Certainly, there may be value in setting provisional goals that change over time, but we should be mindful about what this goal-setting process is meant to achieve. If, for example, its merit is simply *avoiding* the problem of improvisation with traditional learning objectives, there may be ways of incorporating spontaneity in the classroom without going through the exercise of constantly setting and revising goals. When I go for a leisurely stroll as opposed to a directed trip to the store, I do not bother with the cognitive process of continuously revising my destination—I simply *wander around*, letting my feet take me where they feel I ought to go. Using emergent learning objectives may turn out to be possible in the same way that it's possible to hammer in a screw: you might be able to do it, but why not just use a different conceptual tool?

## Curing and Coping

To take the critique of backward design seriously, we must be willing not only to modify our use of learning goals and objectives but also to move beyond them altogether. My overarching fear is that backward design has become an end-in-itself within curriculum design today and that we have lost sight of the initial problem this process was designed to solve: namely, to reform curricula being taught purely for the sake of convention. As such, this very particular approach to instructional design, geared towards addressing a very particular shortcoming, has become a universal model deployed in almost every faculty consultation or workshop, a panacea for all sorts of curricular maladies. What was first introduced in the 1990s as a way to interrupt dogmatism in the curriculum may now have become a kind of dogma itself.

In my view, there are at least two major strategies for moving beyond backward design. The first would be to lean into arguments made by philosophers of education about the intrinsic value of learning. Here we find some precedent for the idea that goals and objectives may be superfluous or even detrimental to the educational process. Paul Standish gives one such account in "Education Without Aims?" Standish (1999) writes that the assumption that there *must* be educational aims "accords with the principles of rational planning which in many respects characterize the modern world" (p. 40). He believes that there is a certain technicism or scientism in the common assumption that "all difficulties are in principle to be overcome by a technical solution," including the difficulty of curriculum planning (p. 41). Standish then goes on to show how scientific assumptions may stand in the way of a more classical process of inquiry—for example, the aporetic attempt to name the good in the Platonic dialogues.

While I find Standish's assessment of scientism in education illuminating and helpful, I also believe that the critique of backward design should not be strictly bound to an ontological commitment about the intrinsic value of education. You don't have to spurn thinking about educational goals to believe that backward design is not the only

game in town. That's the trick of backward design's grip on the field: it makes other approaches seem credulous, naïve, and uninformed. It assumes that if you're not constantly thinking about where you're going, you must be lost. (And you don't want to be lost.) Of course, sometimes instructors do need guidance on setting goals and how to achieve them, but the dominance of backward design makes it difficult to imagine other challenges posed by the process of curriculum planning.

The second strategy, then, would be to articulate a challenge or situation in curriculum planning that cannot easily be remedied through backward design. This strategy assumes that backward design may indeed have its uses, but it remains only *one* tool in our curricular toolbox. Bass mobilizes this strategy by taking on a uniquely confessional tone. He opens his article by recalling a tragic shooting in a Jewish synagogue near Carnegie Mellon. In the immediate aftermath, regional CTLs quickly put out resources for "Teaching After Tragedy." What struck Bass about these resources was—in my words—their perfunctoriness, their banality, their detachment. Bass (2020) writes:

I know such rapid responses by a teaching center are all too familiar by now. Yet, this felt like a marker to me. It seemed like both a pointed response to a horrific incident of profound and shattering proximity and an eerily normalized response of a center for teaching and learning whose core business, by definition, is matching pedagogical practice to instructional needs. It just so happened that this week's instructional needs were coping with hate, bigotry, violence, and loss. (p. 4)

This stark juxtaposition between how-to guides on trauma-informed teaching in the wake of a hate crime and applying Bloom's taxonomy to formative assessments, for example, is what Bass calls an "asymmetry" in the pedagogical functions of educational developers. Bass adeptly refrains from implying that these resources were inappropriate,

poorly researched, or even unhelpful. Instead, he turns his attention to their normalizing effect, implying that—despite their good intentions—they failed to meet the moment. He quotes one such resource, which begins:

As an instructor, it's important to consider the impacts such events have on students as human beings and learners. What can instructors do to support students in the wake of tragedy or crisis, regardless of what they are teaching in their courses? (Eberly Center, as cited in Bass, 2020, p. 4)

I believe we are meant to feel the emptiness of these words in the face of tragedy. In particular, what stands out to me is the formulation of the situation into an instructional problem that needs solving. We are immediately confronted, that is, with the question, When “such events” occur, what can instructors do. . . ?

What would it mean to resist—even for a minute—treating this shooting as a pedagogical problem? What else could we possibly communicate to instructors in this moment apart from what they ought to do next? The power of Bass's reflection is that it shows how the conventional machinations of instructional design can fall short of addressing our holistic needs. In particular, it suggests that the reflex to translate every situation into a problem to be solved can overlook what matters most to us—that something is lost in the rush to do, to fix, to mend. This is by no means to imply that CTLs should not train instructors on trauma-informed teaching; it is only to suggest that this response is, at best, partial and insufficient. Part of the nature of trauma is that knowing what to do with it is only the beginning. Trauma is something that is not only known but also felt, experienced, lived. It lives in both the mind and the body, and it affects us on a level that cannot simply be undone by following step-by-step instructions. Moreover, trauma in itself is not always a problem to be overcome, though it may become one in individual cases. There is an important difference—often overlooked—between coping and curing.

For better or worse, educational developers are increasingly being asked to respond to vastly asymmetrical types of challenges and situations. Deploying the same strategies to meet these diverse challenges is destined to fail. For some of these challenges, we will be able to offer pedagogical cures, solutions, and definitive answers based on evidence-based research, all expertly adapted to meet individual contexts. But for others, we must embrace a pedagogy of coping—an approach less concerned with troubleshooting than with noticing, witnessing, acknowledging, experiencing, sharing, enduring, muddling through. Coping, in this sense, is not the first step towards a cure. Rather, it is a fundamentally different mode of response that demands a radically distinct posture, attitude, or orientation. At the same time, coping and curing are not mutually exclusive drives; on the contrary, they are best mobilized as mutually reinforcing processes.

What does a pedagogy of coping have to do with backward design? In backward design, as in the case of teaching in the wake of collective trauma, what I am concerned with is that feeling of incompleteness or anxiety that lingers, even after one is fully informed about what to do or how to carry on. Many instructors may find comfort and clarity in applying the principles of backward design. But others may embark on the process with a feeling of hollowness, haunted by a nagging suspicion that something vital has been missed in the flurry over SMART learning goals and aligned assessments. Towards the end of their critique, Hussey and Smith (2003) give the following example of a learning outcome: “By the end of this module the student will be able to demonstrate the ability to apply the concept of alienation to their own experience.” The brilliance of the example is how forced or strained it feels. That statement reads as so alienated itself as to suggest that the instructor who wrote it would have very little of interest to say about alienation. It makes one feel: you just can’t learn *this* concept like *that*. (There may be a parallel here to Mary’s room, Frank Jackson’s 1982 thought experiment about a scientist who learned everything about the physics and biology of color vision from books while never having seen anything but black and white.) The use of learning objectives

brings certain aspects of the educational process into focus but only at the expense of others.

Bass (2020) writes that educational developers should “balance our well-placed dedication to evidence with professional competency in imagination” (p. 26). To embrace this professional competency, we must relearn how to listen. The cult of best practices encourages us to deflect complex human situations into familiar technical problems. When we listen in order to fix, we are quick to categorize and compartmentalize. During a consultation, we might be mentally searching for which PDF pamphlet on instructional techniques to call up first. While this can be a valuable skill of educational developers, the danger is that—unknowingly, over time—our professional habits can blind us to different sorts of challenges. When we listen carefully, we can hear that the challenge of curriculum planning may not only inspire instructors to consider a practical problem about how to structure a syllabus but also serve as an occasion to reflect on their own pedagogical practice. Asking the questions of what and how to teach can be a profoundly spiritual exercise, and the explicit enumeration of educational aims can force instructors into a self-reflective posture in which they must confront existential questions about the value of their own area of expertise. Here I am reminded of Virginia Woolf’s expression of self-doubt while working on *The Waves* (1931) in the interwar period, writing in her diary in 1931:

Meanwhile the country is in the throes of a crisis. Great events are brewing. Maynard [Keynes] visits Downing Street & spreads sensational rumours. Are we living then through a crisis; & am I fiddling? & will future ages, as they say, behold our predicament (financial) with horror? Sometimes I feel the world desperate; then walk among the downs. (Woolf, 1982, p. 39)

Especially in times of crisis, we may come to feel that our scholarly work is a kind of fiddling while the world burns. Enumerating learning goals and objectives obliges instructors to ask the question: Even if my

students *did* achieve these goals, where would we be *then*? We may become tormented by the feeling of an inexhaustible remainder—that is, by the enormous scale of the work left to be done, or by the suspicion that one is merely tinkering at the margins. In such cases, our justifications for course designs that merely follow disciplinary norms for content coverage may start to feel thin. Woolf’s fear, after all, was not that *The Waves* was going to be a bad *novel*.

Is social injustice the problem now? Ought we to set about solving it by asking instructors to diversify their syllabus content and adding a learning objective about cultivating an appreciation for diverse perspectives? I do not mean to deny the value of these things, but Bass’s mobilization of the concept of wicked problems allows us to see that what is at stake is not simply that we have *misidentified* the problem now. It’s not that the problem now is social injustice *as opposed to* ineffective teaching strategies. Similarly, the problem with backward design is not merely that we are setting the wrong kinds of goals and objectives. In a more radical sense, the problem now is our fixation with problems. As such, the work ahead involves more than a simple recalibration of our priorities about which issues deserve our attention. It also entails a recognition of the limits to our saving and solving and curing. Our evidence-based bag of instructional tricks might not be an adequate response to the problem of teaching and learning now. Maybe they never were. Acknowledging this will require a certain level of humility. Educational developers have become so adept at fixing pedagogical problems that their challenge now will be learning how *not* to fix, or learning *what else* they are capable of besides problem-solving.

## The Objective of Objectives

Earlier I said that the use of learning objectives opens up certain educational avenues while closing down others. What do we miss in our preoccupation with what students will know or be able to do by the



end of a course? Consider the following example of how backward design can limit our pedagogical imagination.

In “Pedagogy of Buddhism,” Eve Sedgwick (2003) discusses the distinction between knowing and realizing. She recalls a story from American educator Elizabeth Palmer Peabody, who one day walked right into a tree. Those who witnessed the moment of clumsiness asked her whether she had seen the tree in her path, to which Palmer responded, “I saw it, but I did not *realize* it.” Sedgwick draws from this a lesson about Buddhist pedagogy, which is centrally concerned with learning things you already know. From the standpoint of a modern Western epistemology, learning what you already know may seem paradoxical. We often operate with the picture that once you learn something, you know it, and you will go on knowing it until you forget it. But for Sedgwick, the pedagogy of Buddhism begins rather than ends with knowing, culminating instead in realization or recognition, which “can be no perfunctory cognitive event” (p. 168). Sedgwick clarifies the stakes of this distinction later in the chapter, when she discusses how her own cancer diagnosis made her appreciate the chasm between knowing that one will die and realizing it.

Imagine for a moment that we care not only what students know but also what they realize (I do not take this for granted). Imagine, for example, that we value their depth of feeling as much as we value their depth of insight. In this instance, would it not be appropriate to again reform our formulation of learning objectives? To state that our goal is to cultivate a certain sense of recognition? (And what would our aligned assessment look like in a death and dying course, for example—to measure whether students had fully grasped the condition of their own mortality?) Like the case of the hammer and the screw, I do not suppose that setting these kinds of goals is impossible, but it feels again to me here that the concept of an objective itself begins to run thin. The desire to transfigure all of our pedagogical values into goals in the same way a business translates its objectives into key performance indicators (KPIs) feels forced in this instance, especially given that the values in question concern an

element of non-striving that seems at odds with the nature of goals themselves, as if one were to put “become less goal-oriented” on one’s to-do list. (In the Four Noble Truths of Buddhism, our “thirst” or “craving” [*taṇhā*] is identified as the primary cause of our suffering [*duḥkha*].)

The strangeness of setting goals for recognition seems to stem from the type of effort involved in attaining them. Crucially, realization is not something achieved merely through hard work. No amount of reading or studying can guarantee this kind of shift in perspective, which must ultimately come from oneself. Thinking back to the shooting Bass describes near Carnegie Mellon, we might say that the resources offered by the CTL fell flat because they were premised on a pedagogy of knowing in a moment that was ripe for a pedagogy of recognition. The paradox of the situation from the perspective of the CTL was that, in an important sense, what needed to be learned was something that was already known. It was a moment, all too common of late, in which the human capacities for hatred, fear, and violence were on full display. Of course, we all know about these capacities. We know that human beings can be cruel, and at least some of us understand that those who are seen as “other” are often treated as scapegoats for our own suffering. But when it hits home in this tragic way, especially for the Jewish community at Carnegie Mellon, it jolts us awake. We come to realize what we knew in a new way. This realization itself, I want to reiterate, may not be a problem. Our wanting to turn it into one for the sake of solving it may be our own way of coping with the feeling of powerlessness that comes along with such a realization.

How much of backward design is dedicated to structuring “perfunctory cognitive events”? Even in moments of tragedy, why do we insist on learning and doing more as a way of deflecting from realizing what we already know, or from recognizing the horror of what has already been done? How has our thinking about instructional design become inextricable from our preoccupation with learning goals and objectives? As Standish (1999) writes:

When education is undertaken on a large, systemic scale—which is, of course, likely to be the case in the late twentieth century—scepticism about the giving of aims may seem like a kind of political irresponsibility. Surely there must be aims. And should these not be explicit? (pp. 40–41)

In order to get out from under the idea that a course without objectives is not only unprofessional but downright irresponsible, it is important to remember that backward design, at least in Wiggins and McTighe's (1998) formulation, was never posited as the solution to a problem about pedagogical aimlessness or uncertainty. Instead, backward design was conceived as a process to denaturalize educational aims that had become overly rigid—for example, in cases where specific course content or instructional activities became so ingrained in an instructor's thinking as to become educational ends in themselves. At its core, backward design was targeted not at making courses more goal-oriented, but rather at bringing a new level of intentionality to the kinds of objectives that were already being set. To this extent, learning objectives were only ever a means to achieve the ultimate end of a thoughtful, considered, reflective process about how teachers and learners ought to spend their time together.

The three-step process of backward design is surely one way of bringing intentionality to curriculum planning. But I have been working towards the idea that there may be other ways of achieving this sort of intentionality without necessarily relying on learning goals and objectives. There is a distinction, I want to suggest, between proceeding in the absence of aims and proceeding aimlessly. Embedded in any conversation around aims is a kind of deficit model of student learning, one that fixates on what they do not yet know or are not yet able to do. By their nature, aims are future-oriented, suggesting some kind of present lack that ought to be overcome through the educational process. Surely this goal-oriented paradigm has an important place within our educational systems, which are undoubtedly a source of growth and transformation for students. At the same time, Bass's

article shows that we're beginning to recognize the limits of backward design's founding assumptions. Educational developers today have to respond to vastly asymmetrical pedagogical situations, which call for differentiated responses. Especially in moments of tragedy, trauma, and crisis, we can sense the inadequacy of a future-oriented, goal-first pedagogy. In these times, what we care most about is not what we ought to do or ought to know but simply how to be in the world, how to experience the moment, how to recognize what we already know, how to cope with what has already been done.

Moving beyond backward design will require educational developers to appreciate the ways in which we can be intentional about our pedagogical values without formulating educational goals. Such an appreciation is enabled by reflecting on instances in which what we stand to learn is something we already know. Overcoming the paradox of learning what we already know allows us to see that our educational values may not be concerned merely with the future-oriented problem of becoming but also with the present-oriented difficulty of being. What would it be like to design a curriculum that endeavors to teach students only what they already know and that asks them to become only who they already are? This, it seems to me, is one of our most pressing curricular problems now, and one that I commend to our newfound professional competency in imagination.

## **The End of This Article**

So far I've said quite a lot about why we need to move beyond backward design. Drawing on Bass, Woolf, Hussey and Smith, and Sedgwick, I showcased a range of examples in which a goal-oriented or problem-solving paradigm proved unable to exhaust what seemed to matter most to us, whether because the response felt perfunctory in the face of trauma, or hollow in the face of injustice, or bureaucratic in the face of alienation, or empty in the face of death. I also suggested that pedagogies of curing are preoccupied with what students will

be able to know and do in the future, whereas pedagogies of coping emphasize what students are always already able to recognize and to be. By contrast, however, I've said only a little about specific alternatives to learning objectives, what a pedagogy of non-striving might look like, and how it ought to be put into practice in actual classrooms. To this extent, I may seem a rather poor instructor, seeing as my goal was to enable the reader to imagine alternatives to learning objectives by the end of this article. ("To imagine" isn't even a very good action verb to begin with—How would you measure it!) Anyway, it wouldn't be the first time an instructor failed to deliver on their stated objectives.

I want to conclude, then, by inviting the reader to reflect on what they feel remains to be done. What is it that is holding us back from being able to imagine alternatives to learning objectives? Why is it so difficult for us to step outside the logic of backward design? In contemplating these questions, I wonder how our desire for concrete strategies is linked to the same desire to fix, to solve, and to troubleshoot that underlies the principles of backward design. I wonder, in other words, whether our grasping for best practices by which to implement a pedagogy of coping is not, in fact, tantamount to searching for a cure to the problem of curing. Earlier I suggested that our problem now may be our fixation with problems. The other side of that coin would be to say that our problem now is our fixation with solutions. Ultimately, there may be no way to "do" our way out of the problem of doing, no way to solve our way out of the problem of solving. Finding ways to move beyond backward design might turn out to be like finding ways to get out of quicksand—the more we struggle to escape, the more ensnared we ultimately become.

My suspicion is that our difficulty in imagining alternatives to learning objectives is less a matter of not *knowing* what we would *do* instead and more a result of not *recognizing* what it would *mean* to teach without objectives. What could it mean, for example, to learn something we already know? Let's return for a moment to Frank Jackson's thought experiment, mentioned parenthetically earlier. Imagine

that Mary—the brilliant scientist who knows everything about color vision but who has lived all her life in a black and white room—finally sees a real, red apple. How does she react? Our expectation, I assume, is that she will be stunned silent, in awe of finally being able to witness, to behold, the phenomenon she has dedicated so much of her life to understanding on a conceptual level. But there is another possibility, I think, one less often considered, one perhaps slightly more cynical. In this scenario, Mary approaches the apple cautiously, cuts off a sliver, then rushes straight to her microscope to examine whether her current theory of color vision will be able to incorporate this new empirical datum. Here her preoccupation with advancing scientific knowledge, whether intrinsically motivated or otherwise, causes Mary to pursue what Sedgwick might call a perfunctory cognitive event. Both of these potential responses—the awestruck and the perfunctory—have their own appeal, their own merit. But in a world full not only of tragedy and crisis but also of beauty and wonder, what does Mary miss if she fails to see—if only for a moment—the red of the apple before shoving it under the microscope? The philosopher Ludwig Wittgenstein (1953) once wrote, “The aspects of things that are most important for us are hidden because of their simplicity and familiarity. (One is unable to notice something—because it is always before one’s eyes.)” (p. 43). How many times in a day do we fail to see, to appreciate, to recognize what is right in front of us? And what role do instructors play in cultivating our awareness of things we already know?

What am I, in the end, calling for? Am I not ultimately lamenting that learning objectives have been improperly implemented, suggesting that we ought to move towards “higher-order” objectives that emphasize creativity and imagination, or broad objectives that are less restrictive and more open-ended, or experiential objectives that draw connections between academic learning and real-world problems, or inquiry-based objectives that attempt to make learning meaningful by making it relevant, or holistic objectives that incorporate both body and mind, reason and emotion? Am I subtly recommending that educational developers start drawing specific techniques from

contemplative or integrative education, such as those discussed in Palmer and Zajonc (2010) or Barbezat and Bush (2014)? In any case, what will help Mary learn to see red in the relevant sense? Here I offer no solutions but only a reframing of the question. Rather than asking how Mary can learn to see red, I'll ask: How can Mary *unlearn* how *not* to see red? After all, it may be that what she stands to learn cannot be brought about by directing herself towards a new kind of objective or different form of activity. Instead, it might be a relinquishing of objectives, a letting go of the busyness of scientific research, that will allow her to pause long enough to appreciate what she has always already been able to see, to practice what she has always already been able to do. Similarly, it seems to me that instructors and educational developers may not need concrete strategies for a pedagogy of non-striving so much as they need to unlearn how *not* to teach students what they already know. In a culture saturated by the ideals of progress, achievement, solutions, and cures, developing the propensity to be present to ourselves, to others, and to the moment we are living in may be no small feat.

## Biography

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