

Constructivism in Education: Sophistry for a New Age

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... they fear that a clear naming of what they do will reveal how little it needs doing, and they will find themselves on the streets selling wind-up toys. (Richard Mitchell, *The underground grammarian*, 1, January, 1977.)

For of the last stage of this cultural development, it might well be truly said: "Specialists without spirit, sensualists without heart; this nullity imagines that it has attained a level of civilization never before achieved." (Max Weber. *The Protestant ethic and the spirit of capitalism*. 1904-5.)

*My general opinion about this doctrine is that it is a typically scholastic view, attributable, first, to an obsession with a few particular words, the uses of which are over-simplified, not really understood or carefully studied or correctly described; and second, to an obsession with a few (and nearly always the same) half-studied "facts'." (J. L. Austin. *Sense and sensibilia*. 1962. Built on lectures given in 1947.)*

... a confusing of the real with the ideal never goes unpunished. [Goethe. *Wisdom and experience*.]

... we of this age have discovered a shorter and more prudent method to become scholars and wits, without the fatigue of reading or of thinking. [Jonathan Swift. *A tale of a tub*. 1704.]

Constructivist writing typically begins with an intellectually dishonest and shallow critique of the "instructivist" (Finn & Ravitch, 1996)—sometimes called "behavioral"— approach. This critique is a thinly-disguised rhetorical device by which the writer stakes an undeserved claim to the moral high ground and tries to convince readers that the constructivist has anything worth saying. For example:

Constructivism challenges the assumptions and practices of reductionism that have pervaded our educational practices for generations. In a deficit-driven reductionist framework, effective learning takes place in a rigid, hierarchical progression... Learning, then, is an accumulation of isolated facts. [Udvari-Solner & Thousand, 1995]

A constructivist framework challenges teachers to create environments in which they and their students are encouraged to think and explore. This is a formidable challenge. But to do otherwise is to perpetuate the ever-present behavioral approach to teaching and learning. [Brooks & Brooks, 1993]

Even a survey-level understanding of the instructivist approach and its history enables one to see the constructivist critique as an **inept caricature that reveals constructivists' stunning ignorance** of the approach whose alleged failings constructivists claim to remedy, or **outright manipulation** of naive consumers by withholding information.

For example, despite overwhelming evidence of the beneficial outcomes (in basic skills, cognitive-conceptual skills, and self-esteem) for students taught math and reading via Direct Instruction and Applied Behavior Analysis –in stark contrast to the poor outcomes for students taught math and reading by constructivist methods (See [Project FollowThrough](#))–constructivists belabor readers with a compulsive litany of alleged offenses committed by “behaviorists”. These offenses include the following.

1. **Thorndike’s law of effect.** The notion that persons learn from the effects of their actions is supposed to be damning. One does not see how.
2. **Drill on basic skills.** Apparently, constructivists believe that over 100 years of experimental research (and the creative, skillful and durable repertoires of dancers, martial artists, painters, writers, musicians, and athletes) showing the necessity of practice, practice, and more practice for accuracy, fluency, endurance, generalization, retention and creativity, can be invalidated by chanting the vapid (but seemingly catchy) phrase “drill and kill.” (See [Precision Teaching](#) and [Direct Instruction](#).)
3. **The criticism that “behaviorism” reduces human behavior to stimulus-response relationships** –but without enough knowledge to realize that “stimulus-response” is a formulation from the respondent (classical conditioning) learning literature, having little to do with the complex activities (e.g., communication, math) that instructivist educators study.
4. **The allegation that American education has been dominated by the behavioral “model”** –despite the enormous amount of evidence that American education has been dominated– to the detriment of at least five generations of children –by **“developmentalist”**, **“child-centered”**, self-anointed “progressive” (mis)educators.

Even a cursory reading of Ernst von Glasersfeld, Brian Cambourne, Jacqueline Brookes, Catherine Fosnot and other 25 watt illuminaries reveals their ignorance and/or misrepresentation of their created foe.

Constructivist “philosophy,” research, and pedagogy rest almost entirely on fanciful presumptions about learning. Most of the core concepts (“meaning,” “knowledge”) are vague and equivocal. Indeed, definitions shift within the same paragraph. One moment “meaning” is an outcome of meaning construction; the next moment it is an adjective (meaningful). In addition, one searches constructivist literature in vain for serious examinations of essential distinctions—for example: 1) between knowing that, knowing how, knowing how to, and knowing why; 2) between propositional (“If-then”) knowledge and practical (tacit) knowledge; 3) between “knowing” (presuming, assuming, concluding, believing) that something is the case, and knowing the **grounds** (evidence, rules of inference) for assessing what

and how one believes; and 4) between rule-following (“First do X; then do Y.”) and merely rule-describable action (Nola, 1997; Ogborn, 1997).

The failure to distinguish these important forms of behavior or knowledge yields the torrent of new-age hash typical of constructivist writing. (See [Post-modern Survey](#).)

Constructivist “theory” is a mishmash of overlapping platitudes and absurdities – “empty words and poetic metaphors” (Aristotle, *Metaphysics*). Taken separately, constructivist “propositions” are merely simpleminded. Taken together, they are indistinguishable from the verbal behavior of a person suffering from chronic schizophrenia.

“Reality is a construction.”

“Knowledge is a construction.”

“Experience is a construction.”

“Experience is constructed with constructs.”

“Constructs are constructed out of experience.”

“Reality is knowledge.”

“Knowledge is reality.”

“Experience is reality.”

“There is no knowable reality external to the knowing subject (the constructor).”

“Individuals and groups construct meaning as they interact with environments.”

“Therefore, no statement can be more than relatively true.”

“A current body of knowledge (‘reality’) is a context that shapes the construction of knowledge.”

“Therefore, environment, knowledge, experience, meaning and reality are the same thing.”

... certain words and combinations of words are repeated like *mantras*, and while this procedure may well eventually produce in some what chanting is often designed to do, namely, produce a certain feeling of enlightenment without the tiresome business of intellectual effort, this feeling nearly always disappears with the immersion of the head in the cold water of critical interrogation. [Suchting, 1992, p. 247]

But of course constructivists do not submit constructivism to critical interrogation. Perhaps they do not know how.

Oddly, despite a century of anthropological, social psychological and sociological studies of the **co-production** of individuals and the social order, the only thing that constructivists **do not** see as a construction is the **individual**. How the individual somehow remains for constructivists an irreducible entity, or an uncaused first cause, is a mystery we do not expect constructivists to solve—or notice.

Even if one wished to investigate the above trite propositions (or, more importantly, investigate **how constructivists use them** to construct constructivism) one could not do so; one does not know what counts as knowledge, construction, experience or meaning. For example, what processes are signified by the word “construct”? When does this constructing occur? Before we think? Before we act? Afterwards? And does this not lead to an infinite regression? That is, when do we construct the tools by which we construct knowledge? And how could we possibly do so? Such constructing would require an even more primitive tool-tool constructing process. But if it is claimed that we are somehow taught the tools for constructing knowledge, or that we come equipped with them (Kant. *Critique of pure reason*) then that invalidates the major premiss that we construct knowledge—for surely, the tools for constructing knowledge would have to count as knowledge. (See [Ludwig Wittgenstein](#).)

One is also puzzled by some constructivists’ claim that **truth is relative** (except, of course, constructivist truth-claims)—this at the same time that constructivists cite Plato and Socrates (e.g., in the [Meno](#)) as early constructivists. For Plato, opinion (formed from living in the world of becoming, or appearance, and shaped by social position) was relative. However, the Ideas or Forms, of which the apparent world is a mere copy, were not at all relative. (See Plato’s [Republic](#)).

Of course, the claim that truth is relative ought to put an end to constructivism as a serious contender for anyone’s attention. For, if all propositions asserted to be true (or reasonable) are merely relative (to speakers, hearers and situations), then every constructivist proposition is in the category of opinion; is relative to the speaker; and is neither true nor false. Therefore, why would anyone believe (let alone reform education on the basis of) constructivists’ mere opinions? In other words, the fundamental propositions of constructivism disqualify constructivists as authorities on how children learn and how teachers ought to teach (Suchting, 1992).

Confronted with the ambiguities, tautologies and pure absurdities in constructivist writing, naive readers must rely on faith or are persuaded by the hip writing style of constructivists. This (rather than reason and data) is the sort of connection between “authorities” and subjects that (at the macro level) often leads to some form of fascism or at least foolishness. Surely, this is not the sort of authority that we wish our students—or anyone in a democratic society—to respect. Moreover, a case can be made that constructivists’ inability to be concrete, means that constructivists literally do not know what (behavior, learning, meaning, knowledge, construction) they are talking about.

Constructivists’ empty talk about knowledge construction is easily revealed. One merely asks for a narrative recording of a student’s ongoing “construction of knowledge or meaning” (e.g., during a science experiment) that is not identical to a narrative recording of the student’s **actions**. It cannot be done; the constructivist invariably resorts to a running set of **inferences** about the student’s mental life (e.g., schemata). In other words, **constructivists read minds**. This enables them to validate their theories without having

to provide “objective” data. (See [Gilbert Ryle’s piece on thick and thin description.](#))

Constructivist writing is laced with informal fallacies identified by logicians – ad hominem, ad populum, begging the question, ad ignorantium, and false cause. The first three are basically all that constructivists offer as polemic. The latter two define constructivist “research,” which rarely surpasses the level of anecdotes; testimonials; field notes (valorized by the term “ethnography”); or one-group, pre-test/post-test “experiments.” (See [Constructivist Illogic.](#))

Constructivists generally begin their case with appeals to authority. As though it were a secular liturgy, they cite philosophers (Zeno, Gorgias, Heraclitus), Piaget, and of course Vygotsky. Again, constructivists reveal either astounding weaknesses in their understanding of their own totemic ancestors or simply choose to cut and paste whichever passages suit their bias.

For example, Heraclitus certainly asserted that the world is in continuous flux (You cannot step into the same river twice; the waters are ever flowing on), but he also said this is true only in the world of **appearance**. Behind and woven through it all is The Law governing all things. A constructivist might reply (now arguing against Heraclitus, who is often cited in support of constructivism), “But we cannot know of any such Law. All we can know is the world of appearance.” This may be. But the point is that constructivists quote only what serves their bias. A cynic would wonder if constructivists’ (mis)citing of classical writers is another rhetorical device –as though one could transform Dadaist writing into sublime poetry by inserting a few lines from Shakespeare.

And Gorgias’s argument (that nothing exists; that we cannot know anything about what exists if anything does exist; and that we cannot communicate what we know, anyway) is understood by students of these philosophers as a **demonstration** that if an argument is well crafted, you can get naive individuals to believe anything. That is why Plato and Socrates could not stand the sophists.

Again, a close reading of the alleged “founders” of constructivism reveals that these founders would not support constructivism. Indeed, and in what must be one of the greater ironies, Charles Peirce’s pragmatic theory of truth, which constructivists apparently believe supports their notion that we cannot know the truth, is actually a **behavioral** account of what we take to be true. Beliefs that lead to effective actions tend to be repeated. One can only sigh, “Big news.”

Constructivists’ invoking of Piaget (who apparently cannot be allowed to rest in peace) at the beginning of almost every bit of writing, is one of constructivists’ more predictable behaviors. Piaget’s construction of his children’s construction of knowledge is used, variously, as evidence of the oversimplicity of “behavioral analysis,” a foundation for constructivism, and an example of how children “really” learn. But how well does Piaget actually serve constructivist interests? The answer is, Not well.

First, Piaget examined children interacting (largely alone) with the physical environment. Naturally, this very small sample of human interaction with the world that humans are trying to “know” could easily be used to support the constructivist position that humans construct knowledge. But when one observes a child interacting with another human being, it is clear that much that the child takes to be “how the world works and can be understood” is gotten from that other human. “We call this an apple” and “Watch how the rolling ball makes the block tower fall over.” The child’s future actions then confirm these propositions; they do not create them.

Constructivists might claim that by acting to confirm or disconfirm what she has “gotten” from other persons, the child is “constructing” knowledge. However, it is empirically and grammatically more correct to say that the child is **refining** propositions that she received. This discrepancy reveals another major failing of constructivism. The definition of knowledge construction is so broad that it covers virtually everything that human beings get out of interaction with the world. As with every other theory or therapy that has tried to establish hegemony (e.g., psychoanalysis), constructivists’ propositions are neither numerous enough nor robust enough to handle everything that they call knowledge. And, the moment that they retreat from hegemonic intentions, and make room for other accounts, the alleged superiority of constructivism is shown to be mere hyperbole, and falls on the sword of its own proposition regarding the relativity of accounts.

One also wonders why constructivists: 1) persistently examine only those aspects of human interaction with “the world” that support their propositions; and 2) give only one interpretation of events. Surely, for example, Piaget’s narrative recordings of his children’s behavior could be rendered with common behavioral concepts. To insist on a constructivist “way of rendering” is an example of astounding arrogance and hypocrisy. Of course the co-occurrence of these two traits is not new in the history of fads.

Constructivists’ frequent disinterment of Vygotsky, whose *Collected Works* contain both an extensive critique of Piaget’s work and an argument that personality rests on the conditioned reflex, is yet another irony, which lack of interest does not permit us to elaborate.

Constructivism is perhaps best seen as the anarchical utopianism of a socially privileged class (academics) fueled by fake neo-Romantic sentimentality. (See Irving Louis Horowitz, *Radicalism and the revolt against reason*.) Apparently not embarrassed by their astonishing ignorance of history, sociology, social psychology, anthropology, experimental psychology of learning, and totalitarian societies, constructivists regard American society, bodies of knowledge, “behaviorism,” “authority,” and “external,” “socially-contrived” methods of reasoning, as repressive forms of control over the “naturally-reasonable inner child” in all persons (Rice, 1996, 1998). The primary mission of constructivists, therefore, is to help students “find their inner voices” (in a quasi-religious deification of “the real self”), rather than help students share in the bodies of knowledge (math, science, literature) that constitute our species’s effort to understand itself and the world. This has four interrelated

consequences.

1. Constructivists feel obligated **not** to require students to test their “knowledge constructions” using **explicitly** taught, culturally-shared rules of evidence and logic –for such testing would subordinate the individual to external authority.
2. What many constructivists valorize with the word “knowledge” includes students’ mere opinion, speculation, and plain error.
3. The “hidden curriculum” in constructivism teaches two extremes. These are:
 - (a) **Radical constructivism**, which asserts, “There are no truths. Everything is relative.” (“**anomie**”) “The individual constructs his or her reality.” (“**egoism**”) (See Durkheim’s *Suicide* for a discussion of the societal and personal consequences of anomie and egoism.) Radical constructivism ignores the larger socio-political context in which knowledge (e.g., of math and science) is certainly distributed unequally. By making knowledge an individual achievement, radical constructivists distract attention from the social maldistribution of knowledge, and therefore help to perpetuate class inequality (Zevenbergen, 1996).
 - (b) **Social constructivism**, which, in practice, leads to **group think** (Zolkower, 1995). The following lines are rather chilling.

“Opportunities for children to construct mathematical knowledge arise as they interact with both the teacher and their peers. As a consequence, their mathematic constructions are not purely arbitrary –anything does not go in the classroom. Instead, *their constructions are constrained by an obligation to develop interpretations that fit those of other members of the classroom community*”. (Cobb, Wood, & Yackel, 1990) (Italics mine)

Note that students do not discover truths or verify propositions; they develop interpretations. And these interpretations are constrained by the **group’s** interpretation. With an astonishing show of naivete, the writers fail to address the questions that Introductory Sociology students would ask immediately—namely, “How do relations of power emerge in these groups such that some members’ ‘voices’ shape the interpretations (‘voices’) of other members? How does conformity to the interpretations of some members, or to the emerging consensus, come to be felt as a moral obligation? Does the consensus reflect the culture, sex, or class interests and values of the more powerful ‘voices’ in the ‘community’?” (See Bianchini, 1997, on the reproduction of social inequality during “inquiry learning” projects.)

The quotation above reveals the true face and fatal hypocrisy in constructivism—namely, pie-eyed neo-Marxist rhetoric about liberating individuals from the alleged repressive force of traditional bodies of knowledge and methods of reasoning, but in practice **molding the individual’s mind and morality within and by the constructivist led “community”**. No doubt, well-meaning constructivist teachers would be shocked at the suggestion that they are unwittingly instituting

a “tyranny of the majority” masked by quasi-therapeutic jargon, in which “insight” means “agreement” and “truth” means “conformity.” (See Phillip Rieff, *The triumph of the therapeutic.*)

4. This helps to explain why student-teacher interaction in constructivist classrooms bears a striking resemblance to “values clarification” and “sensitivity training” of the 1970’s (“I respect your feelings.”) and Rogerian psychotherapy (“How do you see it?”).

Constructivists are at least consistent in one regard. They do not “evaluate,” “judge,” and reject their own “theory (interpretation) of learning” and constructivist pedagogy on the basis of hard data, experimentation, and logic, any more than they expect students to submit their interpretations to verification by traditional methods. Constructivist “philosophy” argues against any effort to use methods of measurement, evidence and inference found in the serious sciences—to see if constructivist instruction actually works. Issues such as “how well it works,” “correct answers,” “evaluation,” and “judging students’ knowledge” are unacceptable to constructivists, as are standardized tests. These are said to depersonalize students and trivialize their struggle.

Constructivists try to delegitimize evaluation of constructivist teaching by outside persons and/or according to “external” criteria. This is done by: 1) arguing an epistemology that negates the possibility of any “objective account” (“There are no right answers.”); 2) privileging the “process” of learning (the “struggle”) over the outcomes of the struggle (“**How** students learn is more important than **what** they learn.”); and 3) claiming that they alone really “know” what their students have learned. This self-legitimation and self-bestowing of special powers is identical to the rhetoric of sorcery, witch-finding, new age healing, Stalinism, and delusional psychosis. However, judging by book sales, speaker engagements, and teacher training programs, **constructivists have turned skillful duplicity and smarmy pseudo-liberationist cant into a thriving industry accountable to no one.**

Finally, if one were interested in cogent, well-written, intellectually rigorous and illuminating works on how human beings collaboratively produce knowledge (and folly), one would not pay much attention to the watery soup served up by constructivists in education and psychology, but to: (1) Emile Durkheim—*The elementary forms of the religious life* (1912); (2) David Hume—*A treatise of human nature* (1738); (3) Peter Berger and Thomas Luckmann—*The social construction of reality* (1966); (4) George Herbert Mead—*On social psychology* (1934); (5) Harold Garfinkel—*Ethnomethodology* (1966); (6) Karl Mannheim—*Ideology and utopia* (1955); (7) Alfred Schutz—*Collected works* (1962, 1964) and *The phenomenology of the social world* (1967); (8) Charles MacKay—*Extraordinary popular delusions and the madness of crowds* (1931); and (9) Kenneth Burke—*A grammar of motives* (1969) and *A rhetoric of motives* (1969).

Below are some examples of constructivist writing, followed by my comments.

1. “. . . *positivism or now more likely post-positivism, that is, an epistemology that presumes that the world is objectively knowable and definable, principally through rational/logical processes, and can be quantified.*”

Aside from the fact that the above lines do not add up to a sentence, what does “objectively knowable” mean? The phrase is grammatically correct but metaphysical nonsense. Can any “thing” be **non**objectively knowable? If there is a thing to be known (even if by “thing” we include categories such as “red”), then is “it” not some form of object?

As to the implied criticism of positivists’ alleged claim that we know best through “rational/logical processes,” by what means **other** than “rational/logical” ones could one “know” of (and know that one knows of) any “processes” at all? A constructivist would be among the first to assert that we never know a process directly or immediately or all at once; we construct “process” from a passing “stream” of events. Just what would this constructing be if not noting resemblances among passing events; classifying events on the basis of what we take to be “family resemblances”; noting that events of one sort tend to follow events of another sort; identifying “stages” in the passing of events; etc? And this, of course, is inductive logic.

The writer appears to suggest that certain features of the world cannot be quantified, or that one does an injustice to the world by quantifying. Yet, it is hard to find a statement that does not imply quantification. “The check (how many checks is implied) is in the mail.” “I love you (one entity to whom I am speaking).” “Gordon Lightfoot (one person) has not put out an album (zero) for a long time.” Quantification does not start when we use numerals.

2. *“... positivism is not the only, nor necessarily the best, way of coming to understand the world and universe.”*

It is doubtful that any so-called positivist would say that there **is** only one way to come to understand the world. The question is, To what uses do you want to put your so-called knowledge of the world? If a constructivist wishes to entertain friends, then he or she may believe and say anything he or she wants to. But if a constructivist wants to use what he or she calls his or her “construction of knowledge” to suggest that people try a certain treatment for leukemia, or to “reform” education, then impressions, speculations, notions, takes on the situation, senses of the thing, ways of understanding, etc., just will not do.

3. *“Truth with a big or little T is not just ‘out there’, its also ‘in here’.”*

This statement is another example of inventing new meanings for words. And by giving them new meanings, one tacitly claims that one can do with them (reason with them) as one wills—an activity made famous by a character in “Alice in wonderland.”

“When I use a word,” Humpty Dumpty said, in a rather scornful tone, “it means just what I chose it to mean—neither more nor less.”

The traditional definition of truth concerns statements. There are no “true facts.” Facts merely are. Someone is reading this diatribe (why, I could not say). “If you eat that mushroom you will get real sick.” That is a proposition. We say it is true if certain facts follow from it. One also wonders what an “in here” truth might be? An

experience (colors, sounds, etc.,) that only “the subject” knows? If so, why would that be called “true”? Could an experience ever be called “false”? If one could call an experience false, what would make it false? So, if “in here” truth means nothing more than experience, one does not see how the statement, “Truth . . . is not just ‘out there’, its also ‘in here’,” adds anything, or constitutes a critique of positivism.

But if truth ‘in here’ means self-heard statements (“beliefs”), then these statements may be true or false. In which case, again, what is learned by the assertion that the truth is out there and in here? One can state beliefs to oneself or to others. Is that a new idea?

4. *“The tests that might be applied, postmodernists would assert, are all subjective anyway, although they are portrayed as being objective accounts.”*

This is another example of word play in a world of serious events. Would an x-ray “showing” a large mass in a constructivist’s lung be seen by the constructivist as merely the radiologist’s construction (idea)? In other words, when it comes to serious (personal) matters, constructivists suddenly reveal that they see the world as real (out there) enough, and that they want to hear statements that are true, not a physician’s “construction.”

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