

Re-visioning Academic Medicine Through a Constructionist Lens

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Abstract

Constructionism in academic medicine matters. It encourages educators and researchers to question taken-for-granted assumptions, paying close attention to socially and historically contingent meanings. In this Invited Commentary, the authors explain what constructionism is; examine its ontological, epistemological, and axiological underpinnings; and outline its common methodologies and methods. Although *constructivism* favors the individual, *constructionism* privileges the social as the controlling force behind the construction of meaning. Where *micro*-constructionism attends to the minutiae

of language, *macro*-constructionism focuses on broader discourses reproduced through material and social practices and structures. While social constructionists might situate themselves at any point on the relativist–realist continuum, many constructionists focus on constructionism as epistemology (the nature of knowledge) rather than ontology (the nature of reality). From an epistemological standpoint, constructionism asserts that *how* we come to know the world is constructed through social interaction. Constructionism thus values language, dialogue, and context, in addition

to internal coherence between epistemology, methodology, and methods. Constructionism similarly values the concepts of dependability, authenticity, credibility, confirmability, reflexivity, and transferability. It also embraces the researcher–researched relationship. Given the privileging of language, qualitative methodologies and methods are key in constructionism, with constructionist-type questions focusing on how people speak. Here, the authors encourage the reader to develop an understanding of constructionism to re-vision academic medicine through a constructionist lens.

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We rarely consciously think about it, but our experiences of the world are purely clusters of representations. The words we use represent concepts, relations, and entities around us. That chair we see in front of us is merely a retinal representation of that chair. And when we touch it, the sensation we feel is a tactile representation of that chair. Furthermore, because we differ from each other, so too do our representations, sometimes due to physical differences (e.g., color blindness), other times due to experiential differences (e.g., socialization, training). For example, a radiologist might look at an X-ray and

see ground-glass opacity, whereas the patient sees speckles.

What is real (the ontological question) and *how can we know* (the epistemological question)? *Social constructionism*, or simply *constructionism* for short, tackles these (and other) ontological and epistemological questions head-on. Constructionism has been described variously as a theoretical orientation, metatheory, or social theory.^{1–3} Although multidisciplinary, incorporating sociology, linguistics, philosophy, and psychology,^{1,3} constructionism is increasingly employed in academic medicine to question taken-for-granted assumptions about education and to expose how education is both culturally and historically dependent.¹ Constructionism focuses on multiple interpretations of experience within cultural contexts, privileging socially created and shared meanings, and how those meanings serve to maintain power relationships.¹ In this article, we explain what constructionism is; the ontological, epistemological, and axiological underpinnings of constructionism; and the common methodologies used to conduct research through a constructionist lens. Finally, we explicate these elements of the constructionist approach using a case study (see Box 1). Our hope is that gaining a deeper

understanding of this research approach enables readers to re-vision academic medicine through a constructionist lens.

What Is Constructionism?

While the terms *constructionism* and *constructivism* are often used interchangeably in the academic medicine literature,^{4,5} they are not the same thing (see Table 1 for a glossary of terms). Constructionism is characterized, at its heart, by one or more of 4 assumptions: (1) criticism of accepted ways of understanding the world and ourselves; (2) understandings being shaped by time and place; (3) knowledge being constructed through social interaction, especially language; and (4) different constructions of the world eliciting different behaviors.^{1,6} In contrast, constructivism is concerned with how individuals perceive and create their own meanings from events.^{1,2} Constructivism, therefore, privileges the individual as controlling the construction process. Constructionism, however, focuses on the interactional and structural processes in the construction of meaning.^{1,2,7–13} Two major forms of social constructionism exist and are apparent in academic medicine research. The first, called *micro*-constructionism, focuses on everyday talk employed through social interaction,¹ and can be seen in research

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Box 1

Sample Case^{a,b}

"I wanted to tell you about an event that happened yesterday. I was involved in a serious error, um, well, when I say serious, I mean, um, it actually ended up okay (laughs), but it was my fault. I could have harmed a patient, and I still don't know what to think about it. I mean, it has affected me greatly, and, well, I just wasn't prepared for the effect it would have on me (2 second pause). So, um, yesterday I was assigned to monitor a postop patient, he was sleepy, with an intermittent slow respiratory rate. I felt fine about things, it was a simple case of administering 0.2 mg doses of Narcan intravenously, as suggested by my attending, as and when he needed it. No problem (laughs, followed by 1 second pause, deep inhale). So there I was, off the ward dealing with another case, when the nurse alerted me about a change in the patient's condition. I acted superfast. Obviously I checked the patient's vitals first but thought, 'Right, I'd better give him the Narcan pretty quick,' so I asked the nurse to inject the vial of Narcan into the IV port. But then, all of a sudden, I was checking over the vial, and noticed it was labeled '2 milligrams per 1 milliliter!' I panicked! (1 second pause). The entire vial should not have been injected, you know? I called the nurse over quickly and said, 'Look what's happened, didn't you notice this? What should we do?' The nurse seemed a lot calmer than me, but was still flustered. I got home, my partner, who happens to be a hospital pharmacist of all things (laughs), immediately noticed I was subdued. I talked about the incident, and we discussed why it happened, and how I might avoid any future drug errors and everything. Of course, it was good to talk, to go over events and make sense of things, but you know (1 second pause) I just didn't sleep well. I just kept on thinking, 'I could have really harmed that patient,' you know? 'I could have killed him if I'd given him an overdose of (2 second pause) say morphine?' Anyway, I thought by telling you, (this might help your study but also, I don't know, maybe also help others, maybe be a warning (laughs) so thanks for listening."

—Audio-diary #1, Lee, resident

^aA variation on this sample case is used throughout the Philosophy of Science Invited Commentaries to illustrate each research approach.

^bThis is a transcription of a fictional *audio-diary* account of a resident's medical error. Although invented for this article, this has been authentically developed based on the audio-diary genre, plus with expert clinical advice. We refer to this case throughout our article.

exploring language use within different educational approaches.^{14,15} The second, called *macro*-constructionism, instead centers on language's "productive power" based on social and material structures, relations, and institutional practices,¹ and can be seen in research exploring broader discourses underpinning academic medicine.^{16,17} How do these understandings of constructionism link to the sample case of Lee, which we have presented in an audio-diary format (Box 1)?

We can think of Lee's audio-diary as a narrative generated as part of Lee's participation in a research study on medical errors (i.e., her *reason for sharing*).¹⁵ From a constructivist perspective, Lee's narrative might be considered a meaning-making device—that is, a means through which she can work through events to change

her thinking and action. However, from a constructionist perspective, the focus is on *how* Lee constructs the event for the purpose of presenting herself in a particular way, or of enacting power, and so on. First, from a *micro*-constructionism perspective, we can attend to the linguistic features of Lee's narrative and the functions served by language. For example, Lee justifies her story as one that is "tellable," containing a number of linguistic flags to this end, such as signaling an unexpected event: "But then, all of a sudden, I was checking over the vial..." Through these linguistic cues, Lee constructs the event in the form of a story ("But ... all of a sudden").¹⁸ A constructionist might legitimately ask, what is Lee doing with her words and what claims are being made? To answer these questions using a *macro*-constructionist perspective, we

might attend to the wider discourses underpinning the narrative, such as Lee's discourse of blame.¹⁹ The event is constructed as a "serious error" by Lee. Indeed, Lee's construction of events places "blame" at the level of the individual, rather than on patient-safety *cultures*, a perspective that would view safety as a collective responsibility in the workplace.

The Underpinnings of Constructionism

Ontology: A constructionist nature of reality

At first glance, constructionism appears to adopt a relativist ontological position asserting that the external world only exists based on our representations of it.¹ Thus, representations cannot be evaluated against any objective measures of truthfulness or correctness.^{1,20} In other words, multiple realities exist, and there is an "absence of an ultimate truth."¹ ^(p93) Indeed, the so-called *radical*, *strong*, or *strict* constructionism suggests that it is not possible to know an objective reality—that nothing exists outside of the language we use to understand it.^{1,10,11,21} However, many social constructionists (typically those adopting *macro* approaches) struggle with such positions; instead, they adopt the critical realist stance that some sense of reality can exist outside of discourse.^{1,10,20} Critical realists typically accept that perceptions are dependent on reality but that they are only ever approximate to reality.¹ Indeed, *realist*, *moderate*, or *contextual* constructionism can allow for the reality of some things independent of cognition and language (e.g., an earthquake) but acknowledge that other things, such as gender, are shaped by discourse.^{1,8,22} Interestingly, some critical realists accept a plurality of perspectives while maintaining realism.¹ For example, Liebrucks suggests that different people looking at events are likely to see different things (because of their diverse backgrounds and experiences) but that their different perspectives can be equally *true*.²² How do these ontological understandings of constructionism link to Lee's audio-diary?

Lee's narrative comprises a *truth*—that is, Lee's subjective truth. It is a particular composition of events (error), told to a particular person (researcher), narrated

Table 1
Glossary of Terms Relating to Constructionism

Term	Explanation
Constructionism	While no consensus definition of constructionism exists, it can be thought of as a theoretical orientation with one or more of the following assumptions: (1) critique of taken-for-granted ways of understanding ourselves and the world; (2) understandings being influenced by place and time; (3) knowledge being constructed through social interaction, especially language; and (4) diverse constructions of the world eliciting diverse actions. ^{1,6}
Constructivism	Typically associated with Piagetian cognitive constructivism, constructivism is a theoretical orientation related to how individuals understand and create their own meanings from events. ¹ The key difference between <i>constructivism</i> and <i>constructionism</i> is that constructivism focuses on the individual, while constructionism focuses on the social as controlling the processes of construction. ^{1,2}
Micro-constructionism	Micro-constructionism focuses on the minutiae of language employed in everyday social interaction. ¹
Macro-constructionism	Macro-constructionism focuses on the role of large-scale social and linguistic structures in shaping psychological and social life. ¹
Radical constructionism	Radical or strong constructionism claims that nothing exists outside of discourse, thereby typically denying, for example, any material foundations to our experiences. ¹
Moderate constructionism	Moderate constructionism allows for the reality of some (social and material) things as existing independently of thought and language. ¹
Relativism	Relativism is an ontological position suggesting that reality is dependent on our consciousness and thus created through language. ¹
Critical realism	Critical realism is an ontological position asserting that while our perceptions can only ever approximate reality, our perceptions do reference the real world and they are not entirely produced through language. ¹

in a particular setting (typically alone, using a smartphone), for a particular reason (to help others avoid similar errors, to make sense of unpleasant events, etc.). As such, Lee's construction of events is not the same as the events themselves. For a constructionist, *how* Lee narrates this event to others is the most meaningful aspect. Consequently, context matters: Lee will narrate these events differently in different contexts and at different times. This narrative, in its specific context, sheds light onto issues such as how Lee perceives herself and her world (e.g., Lee's identities, social forces, responsibilities, etc.). Constructionist critics might ask thorny ontological questions: "But is Lee's story true?" and "How can we know that the events narrated by Lee actually happened?" While relativists can accept the materiality of events (e.g., the patient received the full vial of Narcan and his vitals improved), they would still maintain that the only way to access this reality is via language.¹ And, consequently, multiple realities are thought to exist: Lee's reality of events is likely to differ from the patient's reality, from the nurse's reality, and from the

attending's reality. Critical realists might accept this multiplicity of perspectives but could consider those different perspectives equally true.

Epistemology: A constructionist nature of knowledge

Interestingly, while constructionists might sit at very different places on the relativist–realist continuum, many dodge ontological questions entirely, instead focusing on constructionism as epistemology.^{1,8} Constructionism, from an epistemological standpoint, asserts that how we come to know the world is constructed through social interaction.¹ Constructionism privileges subjective meaning making with *truth* seen as a dialogic transaction between individuals.¹¹ As such, truth exists in language and bodily action. So, when we ask the epistemological question, "How can we know?", we necessarily turn to language, discourse, and the body.²³ Language carries meaning: It carries idealized ways of being a particular person, of conceptualizing a particular construct, and of viewing the world. No one person is in control. Instead, social realities emerge contextually over time.²⁴ With

social reality existing in talk and action, the social constructionist *comes to know* through an analysis of these aspects of the social world, attending to both *what* is said and *how* it is conveyed. From a *micro*-constructionist perspective, the minutiae of talk and interaction are important. From a *macro*-constructionist position, the existing societal, professional, and cultural discourses, and how they are talked about and appropriated, are key. How do these epistemological understandings of constructionism link to Lee's audio-diary?

Lee's narrative is a transcription of talk and action: a written *representation* (transcript) of a verbal *construction* (narrative). To *know*, social constructionists begin by defining *how* they will know. For a *micro*-constructionist, transcripts of narratives need to contain very detailed information on process features of how verbal language is presented, such as pauses, laughter, false starts, intonation, speed of talk, and so on ("um, well, when I say serious, I mean, um, it actually ended up okay (laughs)"). Transcripts should also contain notation identifying aspects such as reported talk ("he said 'look, the patient's vitals are normal, he seems fine'...") and reported thought ("but thought 'right, I'd better give him the Narcan pretty quick'...") as they form particular ways of knowing and of presenting the world and one's position within it. For a *macro*-constructionist, Lee can be seen as narrating a "good from bad" story,²⁵ when something good (the patient recovers) comes from something bad (a drug error). This is a tellable story, complete with character tropes: the failing doctor, the calm nurse, the "hard" (joking) surgeon.²⁶ It is through these plotlines, tropes, and discourses that the constructionist comes to *know*.

Axiology: Constructionist values and how they influence the research process

Constructionism values language, social interaction, and context.^{1,2,7} It also values individual cases (idiographic) rather than the laws, patterns, and consistencies typified by the natural sciences (nomothetic).¹³ Axiological integrity between epistemology, methodology, and methods and their internal coherence is also highly valued in constructionism.^{27,28} For example, epistemology shapes and is revealed through methodology and methods; methodology guides and is

guided by research questions and study design; and methodology recommends sampling, data collection, and data analysis methods.²⁸ Constructionism values dependability (was the research carried out in a verifiable way?), authenticity (was the research carried out justly?), credibility (are researcher interpretations credible?), confirmability (does the researcher make their personal relationship to the research clear?), reflexivity (has the researcher reflected on their impact on the research process?), and transferability (are research findings transferable to other contexts?).^{4,5,28,29} The meaning making that develops through social interaction between the researcher and the researched is key within constructionism.⁴ Indeed, from a constructionist perspective, the researcher's influence over the questions asked, as well as the researcher's impact on the data interpretation is valued.⁴ However, despite researchers being part of this sense making, they must still adhere to strict ethical boundaries during data collection to ensure they are cognizant of power relations (and specifically of imbalances of power between the researcher and participants), *a priori* assumptions and expectations, and potential ethical dilemmas such as coercion.³⁰ How do these axiological understandings of constructionism link to Lee's audio-diary?

Lee's narrative is part of a qualitative longitudinal research study in which residents record audio-diaries about medical errors over time. Together, Lee's longitudinal audio-diary data can be considered a single *case*. The researchers have carefully considered the questions they want to ask from the study data and designed the study to ensure its internal coherence in terms of their ontological and epistemological frameworks, aligned with their methodology and methods (axiological integrity). The audio-diary facilitates Lee's storytelling close to the moment (authenticity), the researchers attend to the *hows* of telling alongside the narrative content (axiological integrity), and they come together to discuss any differences in interpretation (confirmability), being mindful of their own influences on the data (reflexivity). Thus, despite Lee not meeting face-to-face with the researchers, the researchers *are* present and affect the way that Lee presents her narrative³¹: "I wanted to tell you about an event..." "I had failed

and was now admitting it to the world, and now I'm admitting it to you!" and "thanks for listening."

Methodology: How constructionists conduct research

As mentioned previously, language is key to constructionism,¹ so qualitative methodologies and methods are central due to their ability to collect open and unstructured accounts of experiences.^{1,4} Constructionism in academic medicine research is usually aligned with interpretivist approaches focusing on *understanding*, but can sometimes relate to critical inquiry approaches centering on *emancipation*.¹³ Qualitative research in academic medicine incorporates eclectic methodologies, such as case study, ethnography, grounded theory, hermeneutics, narrative inquiry, symbolic interactionism, and phenomenology (for a description of these methodologies, see recommended reading in Box 2).^{4,5,11} Naturalistic data collection methods such as interviews, observation, audio-diaries, and documents are commonly used in constructionist approaches in academic medicine research.^{4,5,31,32} Finally, data analysis methods underscoring language, particularly examining how people speak rather than just what they say, like discourse or conversation analysis, are vital to constructionism.¹ How do these constructionist methodologies and methods link to Lee's audio-diary?

Lee's narrative is part of a research study employing narrative inquiry methodology, using longitudinal audio-diaries as a method of data collection, plus narrative analysis as a method of data analysis. These internally coherent methodologies and methods were selected to privilege Lee's social construction of her error experiences ("a serious error," "I could have harmed the patient," "I could have killed him," etc.), her developing personal and professional identities ("I acted superfast," "I felt like a total idiot"), and others' identities ("the nurse seemed a lot calmer than me," "they even joked with me") through the social activity of storytelling.³³ Ultimately, constructionist research asks constructionist-type questions. For example, *micro*-constructionism might ask of this narrative, how does Lee construct her and others' identities in error narratives? *Macro*-constructionism, on the other hand, might ask of this

Box 2

Recommended Reading Related to Constructionism

- Burr V. *Social Constructionism*. London, UK and New York, NY: Routledge; 2015.
- Mann K, MacLeod A. *Constructivism: Learning theories and approaches to research*. In: Cleland J, Durning SJ, eds. *Researching Medical Education*. West Sussex, England: John Wiley & Sons; 2015:51–65.
- Ng S, Lingard L, Kennedy TJ. *Qualitative research in medical education: Methodologies and methods*. In: Swanwick T, ed. *Understanding Medical Education. Evidence, Theory and Practice*. 2nd ed. West Sussex, England: John Wiley & Sons; 2014:371–384.

narrative, how do error narratives re-produce dominant discourses of individual blame?

Summary

Constructionism in academic medicine matters. It invites us to question taken-for-granted assumptions and attend to socially and historically contingent meanings.¹ While *constructivism* privileges the individual, *constructionism* privileges the social as the controlling force behind the construction of meaning.¹ *Micro*-constructionism focuses on the minutiae of language, whereas *macro*-constructionism centers on the broader discourses reproduced through social and material structures and practices.¹ Although social constructionists might sit at any number of places on the relativist–realist continuum, many constructionists focus on constructionism as epistemology rather than ontology.¹ From an epistemological standpoint, constructionism asserts that *how* we come to know the world is constructed through social interaction.¹ Therefore, constructionism values language, dialogue, and context, as well as internal coherence between epistemology, methodology, and methods. Constructionism also values dependability, authenticity, credibility, confirmability, reflexivity, and transferability. In addition, it privileges the researcher–researched relationship. Given the supremacy of language, qualitative methodologies and methods are central to constructionism, with constructionist-type questions focusing on how people speak.

We hope that this article has helped to build understanding of constructionism and we invite researchers to re-vision academic medicine through a constructionist lens.

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References

- Burr V. *Social Constructionism*. London, UK and New York, NY: Routledge; 2015.
- Talja S, Tuominen K, Savolainen R. "Isms" in information sciences: Constructivism, collectivism and constructionism. *J Doc*. 2005;61:79–101.
- Peltonen H. A tale of two cognitions: The evolution of social constructivism in international relations. *Rev Bras Polit Int*. 2017;60:e014.
- Mann K, MacLeod A. Constructivism: Learning theories and approaches to research. In: Cleland J, Durning SJ, eds. *Researching Medical Education*. West Sussex, England: John Wiley & Sons; 2015:51–65.
- Ng S, Lingard L, Kennedy TJ. Qualitative research in medical education: Methodologies and methods. In: Swanwick T ed. *Understanding Medical Education. Evidence, Theory and Practice*. 2nd ed. West Sussex, England: John Wiley & Sons; 2014:371–384.
- Gergen KJ. The social constructionist movement in modern psychology. *Am Psychol*. 1985;40:266–275.
- Castello BV. Bridging constructivism and social constructionism: The journey from narrative to dialogical approaches and towards synchrony. *J Psychother Integr*. 2016; 26:129–143.
- Andrews T. What is social constructionism? Grounded theory review. *Int J*. 2012;11. <http://groundedtheoryreview.com/2012/06/01/what-is-social-constructionism/>. Accessed March 18, 2020.
- Amineh RJ, Asl HD. Review of constructivism and social constructivism. *J Soc Sci, Lit & Lang*. 2015;1:9–16.
- Hruby GG. Sociological, postmodern, and new realism perspectives in social constructionism: Implications for literacy research. *Read Res Q*. 2001;36:48–62.
- Martin J, Sugarman J. Bridging social constructionism and cognitive constructivism: A psychology of human possibility and constraint. *J Mind Behav*. 1996;17:291–320.
- Hyde B. Confusion in the field! Providing clarity on constructivism and constructionism in religious education. *Relig Educ*. 2015;110:289–302.
- Crotty M. *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London, UK: Sage; 2003.
- Rees CE, Ajjawi R, Monrouxe LV. The construction of power in family medicine bedside teaching: A video observation study. *Med Educ*. 2013;47:154–165.
- Veen M, de la Croix A. The swamplands of reflection: Using conversation analysis to reveal the architecture of group reflection sessions. *Med Educ*. 2017;51:324–336.
- Stergiopoulos E, Fernando O, Martimianakis MA. "Being on both sides": Canadian medical students' experiences with disability, the hidden curriculum, and professional identity construction. *Acad Med*. 2018;93:1550–1559.
- Tazzyman A, Ferguson J, Walshe K, et al. The evolving purposes of medical revalidation in the United Kingdom: A qualitative study of professional and regulatory narratives. *Acad Med*. 2018;93:642–647.
- Ge J. Two styles of narrative construction and their linguistic and educational implications. *Discourse Process*. 1989;12:287–307.
- Rowland P, Kitto S. Patient safety and professional discourses: Implications for interprofessionalism. *J Interprof Care*. 2014;28:331–338.
- Klassen A. Social constructionism and relativism. *Dialogue*. 2018;57:303–321.
- Thibodeaux J. Three versions of constructionism and their reliance on social conditions in social problems research. *Sociology*. 2014;48:829–837.
- Liebrucks A. The concept of social construction. *Theory Psychol*. 2001;11:363–391.
- Elsay C, Challinor A, Monrouxe LV. Patients embodied and as-a-body within bedside teaching encounters: A video ethnographic study. *Adv Health Sci Educ Theory Pract*. 2017;22:123–146.
- Berger PL, Luckmann T. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York, NY: Anchor Books, Doubleday; 1966.
- McAdams DP, Reynolds J, Lewis M, Patten AH, Bowman PJ. When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative and their relation to psychosocial adaptation in midlife adults and in students. *Pers Soc Psychol B*. 2001;27:474–485.
- Monrouxe LV, Rees CE. Hero, voyeur, judge: Understanding medical students' moral identities through professionalism dilemma narratives. In: Mavor K, Platow M, Bizumic B, eds. *The Self, Social Identity and Education*. London, UK and New York, NY: Routledge; 2017:297–319.
- Zaidi Z, Larsen D. Commentary: Paradigms, axiology, and praxeology in medical education research. *Acad Med*. 2018;93(11 suppl):S1–S7.
- Carter SM, Little M. Justifying knowledge, justifying method, taking action: Epistemologies, methodologies, and methods in qualitative research. *Qual Health Res*. 2007;17:1316–1328.
- McNair R, Taft A, Hegarty K. Using reflexivity to enhance in-depth interviewing skills for the clinician researcher. *BMC Med Res Methodol*. 2008;8:73.
- Reid AM, Brown JM, Smith JM, Cope AC, Jamieson S. Ethical dilemmas and reflexivity in qualitative research. *Perspect Med Educ*. 2018;7:69–75.
- Monrouxe LV. Solicited audio diaries in longitudinal narrative research: A view from inside. *Qual Res*. 2009;9:81–103.
- Rees C. Drawing on drawings: Moving beyond text in health professions education research. *Perspect Med Educ*. 2018;7:166–173.
- Bamberg M. Who am I? Narration and its contribution to self and identity. *Theory Psychol*. 2011;21:3–24.