## Bob Bain, Keynote Address, H21 Launch Conference

## August 2020

## Transcript

Bob B: I'm glad I'm serving that function. I'm going to jump right into this. So, in his most recent book, Fashioning History, Robert Berkhofer begins by situating the present moment for the discipline of history and he says, quote, "Understanding the past as history changes over time. And how we know about the past, what we know about the past, and what we think [00:16:00] important about the past historical practice over time as a result has its fashion of method interpretation and meaning. Do new times bring forth new answers to old questions? What do historians do today? How do they know what to do? Why do they do it that way?" The book, he claims, is his, quote, "Report on the discipline of history in the early 20th century. As the historical profession tries to reconcile long-standing approaches to evidence, synthesis, and symphysis with challenges poses in recent decades by new and strong critics of history as a way of understanding the past and by the explosion of sources and historical interpretations on the internet and social media." I read this book a few weeks ago while working on a project. And so much of my thinking about history teaching and learning over the last couple of years -- the implications of using big frames and big narrative structures to organize [00:17:00] world history courses. Indeed, I was reading the book in this library at San Francisco State after a meeting with Trevor and Steve. Steve actually found the book for me. And possibly it was the context of this conference and the place I was in that -- and my pending talk -- that it seemed to me that Berkhofer's questions and his

project, with some tweaking, applies to Trevor and Steve's project and our project -- our individual projects that we've been all working on for most of our careers. So, let me tweak Berkhofer. Understanding how we teach the past changes over time. And what we know about teaching and learning history, how we know what we know about teaching and learning history, and what we think important about teaching and learning history, likewise, teaching practice has its fashions of method, interpretation, meaning, and purpose. Do new times [00:18:00] and new ways of knowing bring forth new answers to those old questions? What could we be doing? How could we know what we should be doing? Why do we do it that way and not another? And how do we know if what we're doing is useful or usable or meaningful -- and useful and usable and meaningful to whom? This two day meeting and subsequent working sessions and collaborations affords us the chance to begin and for most of us to continue to do the things that Berkhofer was talking about. How do we reconcile -- to reconcile longstanding approaches to teaching, to working with historical content, with historical thinking practices, with instructional goals, with our colleagues both near and far, with our institutional imperatives, which are greatly different depending on where we are, and most importantly with our students -- also different depending on where we are. And how do we reconcile such approaches with the challenges [00:19:00] posed by our institutional and professional constraints of which there are many? And the challenges posed in recent decades by new and very strong critics of the importance of history and world history in the education in today's view and of new and strong critics of what and how we teach to those that we teach -- and of what and how students learn or do not learn, about the inequitable educational opportunities and outcomes that continue to

plague our communities, and the explosion of narratives, sources, and historical interpretations our students face and bring with them either explicitly or implicitly into our classrooms, from not only the internet and mass media, television to twitter, but all the other sites that history is offered and consumed. And how do we reconcile our approaches to teaching not only with new knowledge and theoretical approaches with the discipline, but also, and maybe more importantly, with new understanding of how students think and learn and what they might bring into our classrooms [00:20:00] and what are the outcomes -- both the short and long-term outcomes of our own teaching. Fashioning world history teaching that might be our generative sequel to Berkhofer's Fashioning History. Of course, it's not true that we are the first generation of historians or history teachers to take up these questions and try to fashion effective teaching practices. Indeed, many of us I know -- certainly Jim Grossman must have an archive at the AHA -- the profession has been at this for a very, very long time. Yet, we probably have very, very little to show for it. For example, in the 1880s, the educational psychologist G. Stanley Hall launches a project to fashion pedagogical methodologies of teaching with various subjects, both in the pre-collegiate and at the university. And he began his project focusing on teaching history. Now, why history? Hall said, quote, "History was chosen for the subject of the very first volume of this [00:21:00] educational library because, after much observation in the school rooms of many of the larger cities and many of the larger universities, the editor, without having a hobby of its relative importance of being in any sense of expert in history, is convinced that no subject so widely taught is on the whole taught so poorly." I used to start with that quote when I did workshops with teachers and so I read this on the plane over and didn't put the date

up. And of course they're stunned by the fact that it was said -- and even this line --"Most textbooks," Hall went on -- again was published in 1883 -- "Most textbooks now in use are dry compilations and yet are far more closely adhered to than even the best should be in this department." Now, he drew together renowned historians and renowned history teachers, amazing names -- accomplished -- of people to all talk about the ways that they were teaching history and what could be learned from them. [00:22:00] And as [Wendell?] pointed out we still go back to some of this because it's quite powerful. But that's just one of many. We can talk about the Committee of Ten in 1896, the Committee of Seven, the Beard Commission. There was the war history courses that turned into the western civ course. There was a conference in 1916 in Cincinnati where they brought in all the teachers of western civ -- what would become western civ -- to talk about the best ways to teach it. We can talk about the new disciplinary and cognitive approaches to teaching that came out in the 70s, the Amherst Project that our college Richard Brown was behind or the Bradley Commission of History some of us might remember -- the National Standards in World and US History in the 90s, the Teaching American History Grant Program, or recently AHA's teaching-centered focus, including the teaching [00:23:00] history tuning project. All of these projects were incredibly smart. All attracted incredibly good people and smart teachers who did brilliant things. Yet, as Larry Cuban has written, little of it had an impact. There is a persistence in the ways that teachers teach and it had remained essentially constant for well over 100 years. Cuban in a stunning book commented that, "The single largest technological improvement" -- or "technological change that altered teaching was the invention of the large blackboard because then you could give whole class instruction." When you had little slates, you

had to have individualized instruction. The moment they figured out a way to keep the large chalkboard up, you could give whole class instruction. Universities just did that on steroids. And now the PowerPoint my God -- you could give instruction to 250 -- or with the MOOC 250,000. [Jonathan Goodlad?] in a study in the late 90s referenced the amount of what he called, "Full-frontal teaching" that he saw in [00:24:00] history classrooms and social studies classrooms at all levels. I always suspected that in the math classroom there was full dorsal teaching. (laughter) now what might be different then about this moment that would make our efforts distinctive and significant? Do new times and new ways of knowing bring forth new answers to old questions? Now, clearly, and I suspect not surprisingly, I think the answer is yes. And in the little time I have -- and I'm going to try to cut it as short as I can because we started late -- I'm going to argue that in addition to all the new ideas -- the new content, the new theories -- that make studying the past never old. There has been a modest explosion in our understanding of learning history. And that we could reframe, then, the kinds of questions -- these big questions -in a slightly different way. So, what I want to focus on are essentially four questions. And I'll do it relatively quickly. What's new about what we know and understand about learning and teaching world history? [00:25:00] And I'm going to stress world history. Is there anything new about how we know about what we know about learning and teaching world history? How do we gather this information about the ways human beings think because you really can't see another person think. What do we know about learning and teaching world history or what don't we know, actually, about learning and teaching world history? And what do we think is important about learning and teaching in world history? So, this morning, I want to ignore all those other issues that circulate

through all of your papers that are really important to tackle these four questions -- a sort of why might this project be different from other projects. Those are my four questions to briefly show that we might both begin with some new ideas to apply to old problems in teaching and learning, as well as possibly generate new ideas about teaching and learning world history that others might use. So, first, what is new about what we know at this point in time about how students learn and how people teach world history [00:26:00] that might help us as we think about our work? Now here, obviously, I'm talking about the work that focuses on student's thinking when doing history. Sam Wineburg's name usually comes right to the fore -- Lee Shulman once told Sam that when he couldn't find anyone that was actually doing work on student cognitions, Lee said, "Samuel, invent the field." And in some ways he did invent the field here in the United States. But he was standing on the shoulder of Europeans that had been doing this for a long period of time -- people like Peter Lee, Ros Ashby, Denis Shemilt in the UK, his colleague Peter Seixas in Canada and a number of people -- von Borries in Germany just to name but a couple. And they had been doing this work looking at student thinking. But Sam's work is actually -- remains the best-known. It has actually made some of the most important contributions. The work, as many of you know, worked at the intersection of what a skilled historian does and what novices do -- our students do -- when they study history. His studies on reading primary sources or [00:27:00] engaging in historical empathy. And his most recent studies of how experts read web sources -- by the way that's really important and incredible work because he's pointed out that actually -- he wouldn't say it as bluntly as I'm about to say it -- but that all that work we spend teaching kids to read primary sources doesn't transfer. And they're as duped -- the digital natives are as duped

by what the web has to offer, even those that have taken Wineburg's She project -- that it doesn't transfer and that's going to be a -- I think a key question that I want to pose. What makes what we do useable after the kids have taken their last test or we've graded the last essay? What is transferrable about this work? Now, his work has produced a lot of useful knowledge, but Sam doesn't focus, really, on teaching. Indeed, in some ways I followed in his wake and I've spent a career trying to apply [00:28:00] such knowledge that was coming out the studies of student thinking to create cognitive tools to help students and teachers do more sophisticated thinking with them than we could without. That also will be a theme that I suggest we consider. What kinds of cognitive tools would enable somebody to bridge the gap between a novice and a scholar quickly. That you could do a kind of thinking with the tool that you might not be able to do without. Now, obviously reading primary sources is a critical practice for world historians as well and world history students as well. But today I want to focus not on that, but on two practices -- or three -- that are critical and essential and I would argue maybe distinctive challenges in doing world history. And that is thinking about long-term cases and consequences and thinking with multiple scales and developing coherence across the vast amount of time and space that we work with [00:29:00] in a world history course. Now, all of us have worked with these ideas. I can't imagine a historian that isn't thinking about causation. I think it was in the book Why is History that Carr said that all history is about and ultimately around causes. And I can't imagine that any world historian isn't thinking about these issues of coherence across the multiple things that we teach or about scales. In fact coherence ran through multiple of the papers. It was in the title, I think, even of [Mary's?]. So, as historians, we know this stuff. We work with this stuff. It is

what we were trained to do. However, seeing bigger global pictures and being able to make causal arguments and connections among historical events is only the beginning facet of the professional problem faced by teachers of world history. Our job as teachers are much more complicated than simply understanding [00:30:00] world history for ourselves. We must also help students develop that understanding. And in order to understand how learners build meaning from events, scattered over the grandest scope of time and space, and recognizing the challenges students face in learning, we need some support. In other words, how do we know what they know coming in? What are the challenges that they actually face? And in this instance, the new work -- modest, small work -- simple case studies might help us illuminate some of the challenges that people face. And I'm going to mention just a few set of things -- examples of these things -because there's research that is growing that suggests that adolescents and young adults are not typically what Ladurie would call parachutists. So, you know the famous comment that Ladurie made. Historians are either parachutists or truffle-hunters. I argue that history teachers have to be both and history students have to be both. Most of our students have great difficulty in conceiving of historical change at vast scales. [00:31:00] A number of studies reveal a tendency for students to gravitate towards the personal to explain historical change and often push large-scale structural factors, such as economics, politics, or ideology totally aside. For example, [Carretero?] and his colleagues, in Spain, once asked sixth graders, eight graders, tenth graders, twelve graders, undergraduates at a university, as well as graduate history majors and graduate psychology majors to explain the causes of pivotal events in history that occurred over time -- the discover of the new world, the quote, "Discovery of the New World," World War II, etc. etc. What the

researches did was they gave the students, the learners, cards that had causes on them and the causes were one of six types. Personal -- you know, Columbus desired to discover things -- (laughter) political, economic, ideological, or global. And he asked -- they asked the students then to [00:32:00] sort them in the degree of hat is most significant -most important. What did they find out? By the way, we've done -- we continue to do these studies. I do this in some of my college-level courses. What did they find? All of the students but history majors -- those right at the end of their master's degree -graduate students -- all of them consistently ranked personal agency, that is the intentions and desires of the historical actors as the most compelling explanation for any historical change. Most surprising about this was how very little of this changed and causal reasoning occurred between grade six and grade, you know, 14 by the time they grad-- or 16 when they're graduating college. In disregard of what [Piaget?] would say about this kind of developmental scheme. Turns out that students come out of our history classes often with exactly the same kind of causal [00:33:00] reasoning as they entered as fifth or sixth graders. Only the graduate history majors -- those who had been at the end of their graduate career valued political, economic, or global explanation, such as changes international trade generated by economic and political needs over personal explanations of human wants or desires. And they contextualize the events -- they contextualize causes by the type of event it was. So, they were almost the only ones that would say, "This was the more significant cause," or they refused to say there was a significant cause. This was the interrelationship or web of causes. At the end of their graduate training -- such work presents an incredibly powerful challenge, I suspect, for us as teachers if we seek to push our students to understand large-scale structural changes and

their impact in history, which seems to me is a particularly important goal for world historians. Now, this suggests, but it doesn't predict, what your [00:34:00] students will do. But it does suggest that if teachers do not intentionally engage students tendency to see change as a byproduct of human agency alone -- then students will be more likely to translate all structural trends into personal desires or to personify abstract categories, such as the middle class desired, women wanted, men desired, etc., etc. Done in another part of the world, [Owen Halendon's?] research corroborates this, concluding that most students leave history classes seeing history as the sum of actions of each and every individual -- individual agency, then, Halendon confirmed was another driving force. He argues that there was very little room for structures or structural explanations for formal constructs [of?] personal structures in the minds of students, even after they had taken courses in history. He speculates that much of this is because of what we do when we teach students. We don't [00:35:00] let our students get away by claiming a structural explanation for their failures. In other words, the student that says, Jeez Professor Getz I would have liked to have taken the exam, but if you don't know, Phish came into town and -- last night. It wasn't my problem. It was this larger structure. Now, compared with world historians who look to factor in impersonal structures to actions of individuals to account for historical events and indeed have been criticized by other historians for relying too heavily on the abstract structural approaches. I've got colleagues of mine who say that world history is not about human beings. They go the other directions. This tendency by students to ignore the structural changes seems to be incredibly disconcerting. Halendon describes -- and I'm going to cut a little bit out of this --Halendon describes this interesting exchange in a classroom where he -- the teacher is

trying to get students to consider why is it that about 250 years ago there were [00:36:00] pop up parliamentary democracies in multiple parts of the globe when human beings had been living in societies for a long period of time. And the students refused to move up a large scale to begin to think about large patterns over time. They kept wanting to say, Well, the middle class wanted, or, The ruler wanted. They kept personifying it. This research suggests that students may come in with such powerful theories that we don't see and we're fooled to simply think if we teach loud enough and teach often enough it will engage those theories that will cause them to have significant change. By the way, a byproduct of this -- of looking at these kinds of individual actors -- individual events -- is that often our history courses become fragmented. And the fragmentation is left and lost -- left [00:37:00] also on our students. The textbooks tend to be fragmented, right? If you -- most textbooks one chapter doesn't connect necessarily to the next. There are some exceptions of course to that. University textbooks are a little bit better than high school textbooks. And there's evidence, growing evidence, that our students come out of our courses with -- they come into our courses with knowledge in pieces and they leave our courses with knowledge in pieces. This coherence is a significant problem. And I'll just cite a couple of studies. There's a study done by Stuart Foster, Ros Ashby, and Peter Lee that found that when asked at the end of a course -- now this was middle school, but I'll come back to a university course -- on the history of England. And the students were asked, Tell the story of what you just encountered. And the students give what they call an event-like response. They list events. [00:38:00] There's no process connected to it. It's just one damn thing after another. Now, you could speculate on why that might be. Textbooks might be that way. The way we text kids now, particularly in the precollegiate with individual things, but there could theoretically also be a byproduct of this modular post-holing that we do for depth coverage. For example, without desire to teach using primary sources, often what we'll do is we'll do a small depth study. So, if you take a look at Wineburg's stuff -- the Sheg stuff -- you'll see that what they're doing -the stuff is brilliant. That what they'll do is they'll do a study of like, you know, the Salem Witch Trials or the Trial of Galileo all with primary sources. And then what they'll do is they'll do another study of some other event and it may very well be that in our modular desire to give students depth -- and I love Wendell and the Scholarship of Teaching and Learning's [00:39:00] notion of un-coverage. This is uncovering a type of thinking. But in some ways it covers up a whole set of other things, which is what are the connectors between those very in-depth studies. I mentioned the Amherst study project, which was a set of primary source materials that came out after Sputnik -- when the Cognitive Revolution came on. And Dick Brown was the architect behind that -- wrote a reminder about that something like 15 or 20 years later when he then said, "The big mistake that we made was we didn't do anything that connected these depth studies." What we might be doing is leaving kids knowledge in fragments. And the question -- the interesting question is does the knowledge in fragments of what use or what utilities -- I could quote -- and if you've not read 'piece -- award winning piece, mostly historical -- I can't remember the name of the journal. And I'll paraphrase. Wendell [00:40:00] gives his students at the beginning of his class a prompt and says -- it's US history class -- and he says, "Tell be in 600 words the history of the United States." And for the longest period of time students came in with some narrative. It was either he calls it a glory narrative -- once we had problems, we don't anymore -- or the gory narrative -- a kind of

Zinn-ish narrative -- America has always been imperialistic, etc., etc. But over the last x number of years there is no narrative. And students don't tell a story. And that is an increasing problem that we're seeing more and more and more and more. And by the way, it may very well be -- [Laura?] mentioned this is her paper -- that it's because we -particularly at the university, many universities don't have a theory about what students should learn at the beginning. As a result, you can take courses almost -- [00:41:00] particularly in the history department at any point and when you want to take it. At the University of Michigan that's definitely true. You can take the beginning survey course in world history on your way out the door as a history major. It's not pre-requisite. And that raises some, again, serious problems for what we're doing. I could also talk about Lawren Harris's really brilliant work or McArthur Harris at Arizona State. She gave students 17 cards -- teachers and students -- 17 different cards of historical events, all of different grain sizes. So, there was the Bantu migrations as well as the Industrial Revolution as well as the Agricultural Revolution and then gave them butcher block paper, took the cards, and asked them to sort them and then explain what we're the connectors between them. And if I wanted to I could show you some slides from them because they're stunning. What it shows by giving a card sort is the -- there's no organizational [00:42:00] structure to the cards. It's the structure that you impose on it. And the different between what some people, particularly recent graduates of the university did and more veteran experienced world historians did with those cards are stunning. What we found was that almost without fail initial graduates of our courses -of our world history courses -- have no organizational scheme to do with what these events are. What they do is they know the events, the know the Agricultural Revolution

was important, but they don't quite know where to put it and, at best, what they'll do is they'll put things in some kind of chronological order or what they'll do is they'll put them by regional area. In other words -- and what's stunning is that some people are teaching a global history course and yet what they're doing is they come up with a serial civilizational response because the students came in with a kind of nation-state mentality that organizes no matter what you do -- they're organizing [00:43:00] that. And therefore, you can see it. What is also stunning about it was that the comparison between the multiple connections that someone knowledgeable in world history does and these novices, again, who graduate from our courses do is stunning. I'd love to tell you some of the people that were part of that study. Some of us are colleagues -- members of the world history association and what they do is they multiply connect events and multiply connect categories. There are lines that they're drawing in all kinds of ways. And then what you'll see it a student will sort things -- all the African events in one thing and all the European events in another and then sometimes they draw one line to say this is how they connect. They've got serious sociological categories or geographic categories or someone else will do it. They'll take all the events and they'll go political events, economic events -- you almost hear the person that taught a thematic course. (laughter) here's the political event. And then there's no connections between politics and economics. I'm going to come back to [00:44:00] that study because it's a relatively easy thing to do -- these card sorts. I just mentioned [Carretero's?] card sorts. I mentioned Harris's card sorts. Let me take a turn very quickly for a couple [seconds?] to the challenge of scale switching. And here what I want to do is I want -- and that ran through almost everyone's papers. In fact, at this point I can't imagine a world historian that

could possibly say that thinking about scale or multiple scales is not the ultimate thing of what we actually do. The AHA, when Pat Manning was president, ran a whole conference on scales -- on scale switching. What's interesting to me about this in some of the work that I've been doing for a long period of time now is we have this idea of scale switching, but we don't necessarily have a progression of what does it mean to switch scales. Like what is more intellectually sophisticated by scale switching. And in order to do this -- I'm very [00:45:00] cautious about doing this in this way because I'm going to use two historians and friends to show what I think are two different approaches to scale switching. And that's [David Christian?] and [Tom Holtz?]. David Christian has a view of scale switching and I'm of course simplifying David's work -- David is a dear friend -as a temporal and spatial perspective. He uses the metaphor of maps -- David does. Map mappers design their maps of the real world in very different scales. They all compress information. Every map is a compression of information and offers different details. He says -- or I would say consider for example the map of -- well, actually that was the example is Steve sent me the map [the night Parkmont?] was closed and I was on my own. And so, then, I went to another map, right? It didn't have the scale of the park and what I needed to see because the one that he sent me to was closed. [00:46:00] And so, I had to get a different map at a different scale. And David goes on to say that each one of these maps creates a different perspective on the world -- the physical world. But then he goes on to say that these images really matter. Anyone who has been serious lost knows that having a good map -- that is to say a map that describes the right things because it's the right scale -- can be a matter of life and death. And he argues that's exactly what history is. It's just like a map. Just like you can't have a map that captures everything in

a territory -- it would be the size of the territory -- you can't have a history that captures every single thing. And so, as a result, David says that what we should be doing is using different maps and that's his book called *Maps of Time* for different purposes. And what he's talking about is like using different lenses. Someone mentioned the World History for Us All website. David -- I was involved with Ross, David, Terry Burke and the actual design of that when we started and [00:47:00] what was unique about that project is we scale switched right from the very beginning. And David said, "Let's use as a metaphor the camera lens." And so, if you go back to that site you'll see that there are things that are panorama lenses, right? So, you've got a panorama scale. And then, I forget what's the middle one -- panorama --

SPEAKER: Landscape?

SPEAKER: Landscape and then close-up. And then, what you've got is you've got [a curriculum of?] different things. This is critical because obviously what we're doing is looking at things through different lenses -- an absolutely crucial phenomenon. And then, it goes on to say, "A historical scholarships that moves as freely between the local community and world as a whole, as geographical maps move from the street to the globe, can offer a richer and more rounded account of the past than any scale on its own."

And I can think of the example of the course that [you're doing?] with the different things at different scales. Of course, the issue is how do you decide on what scale? [00:48:00]

And how do you bound your study to a particular scale? Should you bound it to a particular scale? How many scales can you possibly move through with students? And what do students think when they hear you moving up and down scale? Are they with you? Or are they seeing this as simply another example of the local? We found that by

the way that there have been two studies done of how teachers used the World History for Us All site, both done by myself and former doc students. And what discovered was that the teachers love the circular materials. They love those resources. But the moment they adopt them, they line them up to their state standards and they lose the scale structure because that's the way they're thinking of the world. They're preparing their kids for some exam. And that whole thing that we spent a lot of time with is gone. The only thing that actually lasts was the different categories -- conceptual categories of geography. Like most of the students from the first time discovered Afro-Eurasia as a concept instead of a continent, right? And that opened things up, [00:49:00] but all that other stuff was lost. Well, let me shift now to -- and that's the one I think that dominates. In my own work, that turns out to be the easiest way to get kids to scale switch -- to think about this. I've written about this about when I was teaching in the high school. I took my kids out in the hall and did an experiment. We had two different ends of the hall and the kids would be able to think about looking at me at close-up point in the hall or far away in the hall as scale switching. And they began to think about the documents they were using at different scales. That I think is important, but easy. It doesn't mean it's not important because it's easy, but I think that's an easy reach. This one is far more difficult and this come from the work of Tom Holtz. I was blessed in 1994 to be at the AHA for Tom Holtz's presidential address. And the address is published eventually in the AHA called "Marking Race: Race Making in the Writing of History." Anyone familiar with it? I can't [lie?]. [00:50:00] He opens the address and the writing with a quote from Dubois and a quite from Fanon. The quote from Dubois is, "How does it feel to be a problem, a strange experience, peculiar even for one who has never been anything

else? It is in the early days of rollicking boyhood that the revelation first bursts upon you." Goes on the quote to talk about the moment when he's exchanging coins or cards with a girl -- a new girl in the community -- and the White girl recoils in giving a card to Dubois. At that point, he discovers his radicalized identity. In the next paragraph he starts with -- and this was written in 1903. The next paragraph is form Fanon in 1960. And Fanon says, "Look a negro." And then he goes on to say, "I came into the world anxious to have it yield to me the meaning of things. My spirit filled with the desire to be the source of the world. And then I found out I wasn't an object [00:51:00] in the midst of other objects. And then goes on to talk about his radicalized identity." But then Holtz says, "Though separated by an ocean of distance, and nearly half a century in time, Dubois and Fanon articulate strikingly similar description of the discovery of the racialized self. It's important to note that there's is in fact a discovery of race. For their race," in quotes, "adheres neither in their biology nor in their culture, but must be summoned to consciousness by their encounters in social space and historical time." That's a slightly different take on perspective. Because now what he's saying is we've got -- this is his words -- "a levels problem as historians." Not talking to history teachers, but as historians we have a levels problem. And the levels problem is how is it that we link what is happening at the micro level to those things that are happening at the larger. Yeah. Five minutes. Great. The problem resides, he argues, [00:52:00] in establishing continuity between behavioral explanations and the level of individual human experience and those at the level of linkages -- of the larger social forces. He goes on to say, "Therefore, if we privilege the macro level, it yields a lifeless, passionless depiction of the world. If we isolate the micro level, we render human behavior simply unknowable."

And that is tricky for us as teachers because when we scale switch if the students think all we're really doing is shifting perspective they may not make those linkages. And those linkages are the linkages they actually connect the past to the world to which you and I live in constantly. Now, what I'm suggesting here is that we would do well by including this new knowledge and this research into the ways in which we are thinking about the work that we're doing. I could also talk about assessment. And Trevor made an eloquent plea about assessment. There are [00:53:00] new means of assessment -- of surfacing students' understanding, ones that are actually quite simple. Asking students to write a history of your course before they sit down to take the course and then either asking them to write that at the end of the course or giving it back to them at the end of the course and saying, "Look at this, a student turned this in. How would you evaluate it? How would use assess it?" Do the same card sorts at the beginning and at the end. Do a think aloud with the students. But let me move on from that because I'm sure we're going to pick that up. Two more points that I want to make. The opportunity to actually tackle things that we really don't know also exists. And so, let me just suggest a couple of things. We actually don't know very much about the value of lecture or the textbook. We think we know. My students at U of M will tell me -- those in the teacher training program -- I'll say, "What did you learn?" We learned two things. We learned don't lecture and don't use a textbook. And I'll say where did you learn that? [00:54:00] In a lecture or a textbook. (laughter) that runs through -- the notion of active learning is really critical. But there may be a slightly different take. Is there minds-on learning? That might be necessarily different than hands-on learning. And there are studies that talk about effective ways to conduct a lecture, starting with a problem, for example, and surfacing

students' knowledge. Do we have very, very few assessment models in our courses? Very few really good assessment models. We know very little about progressions in learning. The science -- NSF has funded a lot of money in that. Science people have really theories of progressions about how kids understand, for example, [evolution's moves?], which is -- gives you in a sense a rubric that begins to help you understand if a kid is here in thinking about evolution, what might I do to move them there? We have very little of that. In some of the work that we're doing with the big history [00:55:00] project we've discovered some things about the ways students think about the Agricultural Evolution as a one-time phenomenon and event. What does it mean to grow up in a more sophisticated way or how has our thinking grown more sophisticated? What are our progressions in the ways in which we would think about kids developing more sophisticated ideas about causation or scale thinking? I suggested that linking scales might be one. One of the things that could come out of this project would be samples of student work that actually lay out what we would hypothetically begin to think about our progressions -- ways in which -- it doesn't mean that it's a logical progression, but it does mean that this thing seems to be growing in a much more sophisticated manner. What I want to suggest, in closing then, is that what we -- we need to be thinking about what would make our courses usable and useful. We do that all the time. Factual information, of course, matters. The thinking skills of course matter, but so does historical consciousness, [00:56:00] so does the ways in which our students are using or not -- are we changing the ways in which they're thinking about causation? And I think in closing just quickly what I'm suggesting is that no matter what we produce I would hope that includes some pretty serious details of what our students are thinking when they come

into our classes and what claims we can make about when they're leaving our classes -and what are the range of reactions to the work that we're doing because often your teachers will say, The class really went well or it really didn't go well. But there's a whole range of how it went well for the students in the classroom. What were the knots in the students thinking and what did we do to disentangle those knots and what evidence do we have that those works and might be useful for other people? That means our products that come out of this project would be slightly different than the kinds of products that have come out of almost all of those other studies, [00:57:00] which were units and lesson plans that were finished -- I mean the Teaching American History Grants are a great example of it. A billion dollars was spent on producing good instructional materials. Who knows where the hell those things are. And very little knowledge came out of that. The federal government spent a billion dollars and we have very little understand of how students' knowledge in history grows. NSF doesn't spend money that way. NSF makes certain that we get some kind of understanding. And I once made this comment to Trevor and Steve. I would hope that our products that we come out of here -- these modules or whatever -- that they look more like my grandmother's recipe books or recipe cards than what currently represents as lesson activities and structures in a typical recipe book. My grandmother marked down every recipe with how it went over at the dinner table. Uncle [Carl?], too much salt. I have to make a special thing for this. And in some ways having that is -- you can see she's a [00:58:00] teacher that kept records of what her students did that she can transfer over. And so, when we got it, we said, Hmm, our friend is kind of like Uncle Carl. We have to watch that salt. (laughter)

So, what I'm hoping is that we can include [Bessy Bain's?] logic in producing curriculum materials. Anyways, thanks. (applause)