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Theory and the Scholarship of Teaching and Learning: Inquiry and Practice with Intention

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FOUNDATION 5 CHAPTER

Theory and the Scholarship of Teaching and Learning:

Inquiry and Practice with Intention

Nancy L. Chick

The question of theory in the scholarship of teaching and learning (SoTL) is a contentious and confused one. The field has been criticized for allegedly being atheoretical and undertheorized, and practitioners have been criticized for not identifying the theoretical frameworks that influence their specific projects.[1] Hutchings troubles these claims by asking, "Which (and whose) theories [are we] talking about?"[2] This tension invokes the "conservative" nature of many discussions of SoTL, which "promote a narrow definition of SoTL (including its questions, methods, evidence, and genre) as the norm, suggesting that variations lack important qualities of SoTL."[3]

This background begs the question: What *is* theory? A narrow, field-specific definition suggests that much SoTL is indeed lacking, while a broader definition allows for both the presence and growth of theory in SoTL. The *Oxford English Dictionary* defines theory as "the conceptual basis of a subject or area of study. Contrasted with *practice*."[4] It then breaks down the specific meanings within different disciplines, such as mathematical theorems or bodies of knowledge about specific mathematical concepts, literary and artistic critical methods arising from ideological assumptions, and scientific hypotheses or explanations of phenomena resulting from examinations of facts. This fuller recognition of meanings drawn from across disciplines honors the multidisciplinary nature of SoTL.

Theory in SoTL is, then, the conceptual basis for the practice of SoTL—or, more precisely, the conceptual *bases* for the *practices* of SoTL—as well as the bodies of knowledge, methodological assumptions, and explanations of phenomena that are deployed (explicitly or implicitly) from a range of contexts within SoTL. Put another way, theory is thinking on a meta level, a metacognitive move in which practitioners become aware, critical, and intentional of how and why they are doing their practice. It involves taking stock of

the existing conversations to move beyond definitions,[5] to critically evaluate gaps and limitations, and to maintain forward momentum in the field. As Chick and Poole have noted, such "meta-SoTL" (or work *about* SoTL, which includes theory and theorizing) "chronicles and even celebrates its ongoing sense of becoming and its confluence of diverse and serious inquiries from specific contexts."[6] This work is essential for SoTL to continue to grow as a practice (e.g., a research-based approach to teaching, or a teaching/learning-focused area of research), as way of thinking (e.g., teaching is best informed by evidence from the learners), and as a field (i.e., an emerging, pluralistic body of knowledge, values, and practices about postsecondary teaching and learning). What these criticisms suggest, however, is that SoTL practitioners need to name their theories. With this naming, SoTL will be (and will be better understood as) *explicitly* intentional, self-reflective, and self-critical.

SoTL as Theory

SoTL is predicated on some conceptual bases that can and should be articulated. First, as Hutchings and Shulman imply in their description of SoTL as an act of "going meta,"[7] the lens of SoTL can in itself be a kind of theory. Their taxonomy of SoTL inquiries has become a touchstone for the field, organizing the work of SoTL by the questions it asks. One type explicitly aligns with theory in its focus on "formulating a new conceptual framework for shaping thought about practice."[8] The three other types of SoTL inquiries named in the taxonomy seem very practical: "what works" questions "seeking evidence about the relative effectiveness of different approaches," "what is" questions "describing *what it looks like*," and "visions of the possible" questions framing learning experiences in a new way. However, even the seemingly practical inquiries of SoTL are undergirded by some important and often unarticulated assumptions about teaching, learning, and the connections between the two.

SoTL inquiry rests on complex assumptions about the relationship between teaching and learning. Scott Kim's ambigram of "learn" as an inversion of "teach" illustrates *the first part* of a powerful conceptual basis for SoTL.[9] It is the hope and aspiration of SoTL that learning will be a reflection of teaching: it's not "does it work?" but "what works?" Trigwell and Shale have called this connection "pedagogic resonance."[10] O'Brien's SoTL compass identifies the teacher as "the designer of learning," one who "can … do" something "to enable learning."[11] SoTL aims to build "pedagogical content knowledge,"[12] or teaching one's subject matter in ways that are informed by how students learn it. Shulman's notion of signature pedagogies is predicated on the assumption that they "form habits of the mind, habits of the heart, and habits of the hand" in the students who are future professionals, and that "the way we teach will shape how professionals behave."[13] And so on.

Significantly, though, much of SoTL identifies the absence of, or barriers in, this teaching-learning connection, problematizing a simple cause-and-effect relationship. Before describing such successes, many "what works?" projects identify particular teaching activities with a negative effect on student learning (e.g., multiple-choice tests, traditional

lectures), and rich "what is?" projects chronicle what moments of unmoored learning look like.[14] The reasons are many. Foundational works on how students learn[15] challenge the simplicity of learning and its processes, identifying these and many other ways learning can be muddled. Shulman describes the "pedago-pathologies" of "*amnesia*," "*fantasia*," and "*inertia*"—disconnections between teaching and learning resulting from learners forgetting, misunderstanding, or leaving behind what was taught.[16] Pace and Middendorf's renowned model of "decoding the disciplines" asks teachers to identify obstacles or "bottlenecks" in the learning process, as does Meyer and Land's notion of threshold concepts.

In this way, SoTL is grounded in the need to "represent complexity well,"[17] and the tenuous relationship between teaching and learning. With theory as a guide, SoTL work demonstrates that "learning is not *determined* by teaching" but is instead "*dependent* on teaching."[18] Undergirded by a sense of optimism, though, SoTL is an act toward greater alignment between learning and teaching, which is the subject of the majority of its projects and many of its key concepts—and forms part of its conceptual basis for how the work is done.

Disciplinary Theories in SoTL

From its origins, SoTL has been recognized as "grounded in the disciplines,"[19] by definition informed by the epistemologies, understandings, assumptions, and practices of disciplinary experts. As Poole notes, the work of SoTL is inherently shaped by what its practitioners and those who influence those practitioners consider "research."[20] It affects choices in research question, project design, what counts as evidence, and even what its publications look like. It also affects the choices in theories applied in the work, resulting in "a more situated view of 'theory,' as emerging from, engaging with, connecting to, and underwriting wide-rangingly different disciplinary styles of inquiry and interpretation."[21]

For obvious reasons, there is a strong call for the use of educational theories in SoTL. Gibbs has criticized SoTL practitioners for "conduct[ing] pedagogical inquiry without sufficient knowledge of or reference to the theoretical armature of education and other learning science fields."[22] Miller-Young and Yeo more generously note that members of the multidisciplinary field of SoTL could benefit from a better understanding of the range of lenses and methodologies used in educational research. SoTL researchers can benefit from being aware of their philosophical approach and theoretical assumptions about learning because it will help them ask new questions, design better studies, and more strongly articulate their findings, especially to colleagues with different world views. This will also benefit the field, not only by improving communication and understanding across disciplines, but also because theoretically grounded work is one way for SoTL to achieve broader impact across studies and make new contributions to knowledge about teaching and learning beyond single classrooms.[23]

Others have also brought in theoretical frameworks from their home disciplines as significant foundations for SoTL. Hutchings cites, for example, Salvatori and Donahue's scholarship on moments of difficulty in learning, which is grounded in theories from

English studies, including "the hermeneutics of Hans-Georg Gadamer, literary theory by George Steiner, Helen Elam, Wolfgang Iser, and others."[24] She also notes another's focus on semantic theory and "the power of signs and symbols," and others who draw from the "highly relevant theoretical frameworks and foundations" in "sociology, anthropology, and management (to name a few)." Social network theory, for instance, has found traction in the field,[25] and Chick uses multicultural theory to make sense of some of the disciplinary debates in and about SoTL.[26] Clearly, theories relevant to SoTL come from all fields, but identifying the myriad frameworks associated with specific theorists, schools of thought, and disciplines relevant to SoTL falls well outside of the scope of this chapter.

More generally, Berenson encourages SoTL practitioners to identify "their tradition of inquiry" *vis-à-vis* positivism and constructivism (put simply, knowledge as objectively observable and measurable, or knowledge as socially constructed).[27] A sociologist and educational developer, Berenson offers a good reminder that many theories don't simply fall within a single discipline, and they need not stay within any single discipline. They become part of the "commons," the trading zone in which SoTL practitioners share their approaches, practices, and findings. Hutchings and Huber have cited SoTL's "methodological and theoretical pluralism" as one of its strengths.[28] This need to name the components of SoTL work is not new. Many have been encouraging SoTL practitioners to name their methodologies and methods,[29] their contexts,[30] even their ethics approvals—often in the face of claims that these components are faulty, absent, or ignored in the work. But, as Berenson reminds, these components of the work need to be intentional, visible, and named.

From Theory-Informed Teaching to Theory-Informed SoTL

The case studies that follow suggest another way of thinking about theory and SoTL. They offer examples in which the authors explore how broader frameworks, theoretical approaches, and ways of thinking can inform teaching and learning, grounding teaching design and practice with significant intentions—and naming them.

This attention to theoretically informed teaching in the context of a SoTL book resonates with research showing that the quality of students' learning is affected by the teacher's conceptions of *what teaching and learning mean*—or the teacher's theoretical framework.[31] Trigwell, Prosser, and Waterhouse have found that students use deeper approaches to learning when their teacher has a specific intention or understanding of teaching, described as a "Conceptual Change/Student-Focused Approach":

> This approach is one in which teachers adopt a student-focused strategy to help their students change their world views or conceptions of the phenomena they are studying. Students are seen to have to construct their own knowledge, and so the teacher has to focus on what the students are doing in the teaching-

> learning situation. A student-focused strategy is assumed to be necessary because it is the students who have to re-construct their knowledge to produce a new world view or conception. The teacher understands that he/she cannot transmit a new world view or conception to the students.[32]

This theoretically informed approach to teaching, then, has a greater effect on students' depth of learning than specific class activities. With this "chain of relations from teacher thinking to the outcomes of student learning"[33] in mind, the case studies in this section of *The Grounded Instruction Librarian* set up SoTL projects that explicitly trace the theoretical intentions in the teaching to the students' learning by investigating their impact and effectiveness according to these frameworks.

Seale's case study on "historicizing the library," for example, illustrates the cross-pollination that is possible both in librarian partnerships with disciplinary faculty and in SoTL. She "goes meta" in thinking about her teaching, her students' learning, and her discipline of librarianship in a variety of ways, including the decoding the disciplines framework and the notion of historical thinking:

> Rather than teaching the "facts" of *what* of library systems, historicizing the library seeks to get at the *how* by uncovering their historical constructedness … and to get students and other users to question library resources, to understand them as always incomplete and inflected by the social world.

This approach to library instruction helped her identify key bottlenecks in how students learn information literacy. A SoTL project on Seale's historicized library might then explore *how* students "question [library systems] instead of assuming their transparency," what their questioning looks like, how they respond to this new way of looking at their relationship to library research, and how it affects their actual research practices and products. If what they gain from the library is "always incomplete and inflected by the social world," what do the processes and products of students' research look like?

Moeller and Arteaga challenge readers to re-envision the common one-shot, skills-based library instruction through the lens of critical pedagogy and critical information literacy, asking what library instruction would look like if the learner and the learning are placed at the center, empowered, and understood within their social, cultural, political, and economic contexts. Such a learner-centered, reflective pedagogy would be "transformational" for students. Moeller and Arteaga leave open what these pedagogies might look like, as well as their subsequent SoTL inquiries, which would presumably be inquiries that demonstrate the nature of these transformations and the ways in which students understood the significance of information literacy within their own lives and their own communities.

Shields, Denlinger, and Webb describe information literacy classes that use specifications grading, a strategy based partly on educational research on student motivation for learning,

namely that students are more intrinsically motivated when they are working to master specific standards to pass their assignments, rather than working to earn specific points to achieve specific grades. While multiple library courses at their institution have been redesigned with specifications grading, Shields and colleagues note that none has "yet been formally studied," and "instructors using SG need to conduct evidence-based research." Although their proposed SoTL questions address the practice of specifications grading, they also explicitly reach back to its basis in student motivation, significantly proposing a theoretically informed SoTL that extends beyond specifications grading:

> To what extent are students more/less motivated in a SG class than non-SG? How does student agency/choice affect motivation? How do transparency and clarity of expectations affect motivation? For the instructor, to what extent does SG actually save time, or is the time spent grading simply exchanged for time spent developing specifications, providing feedback, engaging with students, and related tasks? What value do students and instructors place on feedback, and how does that differ by group? How does an SG course compare to a pure rubric-based course? Do students aim for a higher or lower grade in an SG course than what they might achieve in a traditionally graded course? How effective might SG be for teaching at-risk students, international students, or first-generation college students?

To be clear, while there is attention to the specifications grading here, their emphasis is less on any mechanics of the activity and more on larger issues of student motivation, including their sense of agency, what they value, and what they "aim for."

Tysick, Maloney, Sajecki, and Thomas describe a one-credit library lab taught in two different ways. In one semester, the activities in the lab were based on constructivist theories of learning, particularly the expectation that students would draw on their pre-existing information literacy skills as they continued to learn and build on these skills in the lab course. The next semester, the library lab was redesigned according to the social constructivist notion that students learn in community and conversation with each other. Initial assessments using course evaluations, student feedback, and instructor/librarian reflections suggest some successes, and Tysick, Maloney, Sajecki, and Thomas propose this course design "be used as a theoretical model" for information literacy instruction. What's most interesting here, though, is that they don't frame their course revision simply as adding group or collaborative learning; instead, they draw on the conceptual deliberateness of shifting from constructivism to social constructivism—different theories for how learning happens. A SoTL project aligned with this course would then begin with questions grounded in social constructivism, rather than asking simply if group-based infographics and outline assignments were more effective.

McKinney and Webber draw on Entwistle, Nisbet, and Bromage's model of increasingly broad spheres of a teaching-learning environment, including a course's learners, the educator's beliefs, the institutional context, a discipline's expectations, and the broader sector of higher education. The authors use this model as a tool for reflection and learning design within a graduate library course in which the students prepare for their future roles as teachers. Introducing this more complex model for understanding learning reportedly shifted their teaching approaches from "transmissive to more constructivist"—again, pointing to the importance of theoretically informed teaching, which could then result in theoretically explicit SoTL.

Librarians, Theory, and SoTL

In addition to investigating theoretically informed library instruction, readers of this book may also advance the conversation of theory in SoTL by articulating the theoretical frameworks librarians offer. For instance, fundamental to teaching, learning, and SoTL is the notion of "knowing." So what does this mean to librarians? What is "knowing" and "knowledge"? "Information" may translate to other disciplines as something more basic, more static than librarians intend, so what is the knowledge librarians understand in the idea of "information" and why is it important? What does it look like? What is its purpose? Who can have it? How do they get it? What do they do with it? How do librarians know when someone has it? What happens when it is missing? What are the implications then for librarians' teaching and learning? What are the implications for other contexts for teaching and learning? What questions does it raise about teaching and learning? And what are the implications for SoTL? In this way, librarians will help grow the field of the scholarship of teaching and learning.

ENDNOTES

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3. Nancy L. Chick, "Difference, Power, and Privilege in the Scholarship of Teaching and Learning: The Value of Humanities SoTL," in *The Scholarship of Teaching and Learning In and Across the Disciplines*, ed. Kathleen McKinney (Bloomington, IN: Indiana UP, 2013), 18.
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5. S. Booth and L. C. Woollacott, "On the Constitution of SoTL: Its Domains and Contexts," *Higher Education* 75, no. 3 (March 2018): 537–51.
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13. Lee S. Shulman, "Signature Pedagogies in the Professions," *Daedalus* 134, no 2 (Summer 2005): 59. See also Regan A. R. Gurung, Nancy L. Chick, and Aeron Haynie, *Exploring Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind* (Sterling, VA: Stylus, 2009); Nancy L. Chick, Regan A. R. Gurung, and Aeron Haynie, *Exploring More Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind* (Sterling, VA: Stylus, 2012).
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18. Brent Davis, Dennis Sumara, and Rebecca Luce-Kapler, *Engaging Minds: Cultures of Education and Practices of Teaching* (New York, Routledge, 2015), 75.
19. Mary Taylor Huber and Sherwyn P. Morreale, *Disciplinary Styles in the Scholarship of Teaching and Learning: Exploring Common Ground* (Washington DC: American Association of Higher Education, 2002).
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26. Chick, "Difference," 15–33.
27. Carol Berenson, "Identifying a Tradition of Inquiry: Articulating Research Assumptions," in *SoTL in Action: Illuminating Critical Moments of Practice*, ed. Nancy L. Chick (Sterling, VA: Stylus, 2018), 42–52.
28. Pat Hutchings and Mary Taylor Huber, "Placing Theory in the Scholarship of Teaching and Learning," *Arts and Humanities in Higher Education* 7, no. 3 (2008), 233.

29. See for example Chick "Difference," Nancy L. Chick, "'Methodologically Sound' Under the 'Big Tent': An Ongoing Conversation," *International Journal for the Scholarship of Teaching and Learning* 8, no. 2 (2014): 1–15; and Regan Gurung, "Getting Foxy: Invoking Different Magesteria in the Scholarship of Teaching and Learning," *Teaching & Learning Inquiry* 2, no. 2 (March 2014): 109–14.
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32. Trigwell, Prosser, and Waterhouse, "Relations Between Teachers," 62.
33. Ibid., 57.

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