Legitimate Peripheral Participation within a Community of Practice:

Lavean Contributions to Situated Cognition

GNA Garcia

University of Connecticut
Abstract

Presented here is an overview of Jean Lave’s theory of legitimate peripheral participation within a community of practice. The theory is examined through application to an instructional task—mindful eating. An assessment of the theory in application (Table 1 and Table 2,) along with critiques of the overall theory follow. Also included is a discussion of two frames of reference for Lave’s work, the broader theory of situativity and Lavean biases.
Legitimate Peripheral Participation within a Community of Practice:

Lavean Contributions to Situated Cognition

Jean Lave, an anthropologist by training, currently teaches in the Geography department at the University of California, Berkley. As an anthropologist, her main area of inquiry and unit of analysis was persons acting in setting within greater arenas which she describes as the, “…realizations of dialectical relations among semiotic systems, social structure, and political economy” (Lave, 1988, p. 187). These micro and macro research endeavors lead to the collection of rich ethnographic data about human beings embedded within the context, culture, and situation(s) where learning took place (e.g. housewives shopping at a grocery store), as well as challenging theoretical contributions to the broader field of cognitive science.

Lave’s research on apprenticeship models made a strong case for the theory of cognition know as situativity (referred to as situated cognition by many). In describing key phenomena such as “legitimate peripheral participation” and “community of practice,” Lave emphasized all cognitive activity (i.e. learning) happens between an organism (humans for the purposes of this discussion) and the environment which may include place, artifact(s), other humans, etc. And, that cognition happens everyday, meaning, “Central to the everyday contexts [italics added] in which cognitive activity occurs is interaction with other people and use of socially provided tools and schemas for solving problems” (Rogoff, 1999, p. 4).

Lave’s work does not directly translate into pedagogical practices, as a matter of fact, she and Wenger (1991) intentionally avoided making specific recommendations for learning in formal environments because they considered the institution of schooling as community of practice that called for deeper interrogation and consideration than their research afforded. However, for the purposes of this paper I will attempt to apply Lave’s contributions to the
situativity theory of cognition, specifically her concepts of legitimate peripheral participation and community of practice, to the instruction of “mindful eating” within a formal learning environment (to include a description of mindful eating and the learning environment within which it will be taught). Following an assessment of the instructional task and how it might play out in a community of practice via “newcomers” legitimate peripheral participation, I will offer a critique of Lavean situated learning (my own and a summary of the salient criticisms generated from within academia).

Examining Lavean contributions to situated cognition calls for two additional considerations; first, to frame the discussion, some general descriptions and definitions of the situativity theory of cognition will be presented, and secondly, an acknowledgement that Lave does not assume to do politically nor values neutral research (neither does she assume any research is “neutral”). Both of these issues will be dealt with in-turn.

Situativity Theory of Cognition

The situativity theory of cognition (Greeno, 1998), also referred to as situated cognition, offers a context and situation-bound theory of cognition—a theory that claims thinking is complex, radical, individual, yet inextricably bound to, and motivated by, the conviviality social human interaction affords. When Dewey (1938) wrote of experience and education he stated, "An experience is always what it is because of a transaction taking place between an individual and what, at the time, constitutes his environment..." (p. 43), yet research and theory-building in situated cognition did not begin in earnest until near the end of the 21st century.

The field of educational psychology, beginning in the 1990s, has made robust theoretical and practical contributions to our understanding of situated cognition. Research, including Lave’s and others (e.g. The Cognition and Technology Group at Vanderbilt, 1990; Lave &
Wenger, 1991; Roth, 1996) as it began to demonstrate qualitatively and empirically how 'rule bound' approaches to understanding and explicating thinking (i.e. schema and information processing theories) were inadequate at describing the complex ways human learning takes place in the 'real world.'

The situativity theory of cognition suggested that learning was "situated" and "on the fly" (e.g., Brown, Collins, & Duguid, 1989; Lave & Wenger, 1991; Greeno, 1998) that is, it always takes place in a specific context, with learners (agents) possessing specific intentions, and in response to specific affordances of the learning environment (Gibson, 1979).

Lavean Bias

Throughout her body of work, Lave (1988, 1991, 1996) leveled a harsh critique on what she believed was the taken-for-granted normative ways of knowing within the academy. Using a Marxist, radical humanist lens she interrogated cognitivism and all of its antecedents including mentalistic theories of human behavior, functionalism, and positivism. The scholar’s biases were clear—as were mine when I stated researchers must be, “… committed to outing the ethical, moral, and values-based decisions they make as academics. They must accept the undeniable truth that it is impossible to live and work in an ethically, morally, or values-neutral environment, whether in a physics laboratory or in women’s studies and whether you are doing quantitative or qualitative research” (Garcia, 2007, Footnote or Foundation section, para. 2).

When advancing her theory of everyday cognition Lave (1988) at the same time interrogated the entire history, including the birth and continued growth, of epistemic prejudices and intellectual elitism surrounding functionalism. Early on she stated, “In this theory [of functionalism], duality of the person (academic versus ‘novice’) translates into a division of (intellectual) labor between academics and ‘the rest’ that puts primitive, lower class (school)
children’s, female, and everyday thought in a single structural position *vis-à-vis* rational scientific thought” (Lave, 1988, p. 8). According to Lave’s bias, and my own interpretation of her text, that position was one of subjugation. In examining how legitimate peripheral participation takes place within a community of practice, Lave (1988) made an intentional decision to illuminate *everyday cognition* as what all humans were capable of (and entitled to) and to actively deny the privileged position of empirical experimentation. She stated,

To focus on a *whole-person activity* [italics added] rather than on thinking as separate from doing implies a negation of the conventional division between mind and body. This negation is also reflected in the claim that ‘cognition’ is seamlessly distributed across persons, activity and setting. This in turn implies that thought (embodied and enacted) is situated in socially and culturally structured time and space. (p. 171)

More thoroughly informed about the theory, values, and biases from within which Lave’s research sprung, let us turn to what is arguably her most significant contribution to the situativity theory of cognition—legitimate peripheral participation within a community of practice.

**Legitimate Peripheral Participation within a Community of Practice**

According to Lave and Wenger (1991) legitimate peripheral participation (LPP) provided a framework to describe how individuals ('newcomers') became part of a community of practice (CoP). Legitimate peripheral participation was central to Lave and Wenger's take on situated cognition (and situated activity) because it introduced socio-cultural and historical realizations of power and access to the way thinking and knowing are legitimated. They stated, "Hegemony over resources for learning and alienation from full participation are inherent in the shaping of the legitimacy and peripherality of participation in its historical realizations" (p. 42). Lave and

---

1 Jean Lave and Etienne Wenger’s research interests subsequently diverged with Wenger pursuing further development of a model of “community of practice” (Wenger, 1998).
Wenger's (1991) research on the phenomenon of apprenticeship in communities of practice not only provided a unit of analysis for locating an individual's multiple, changing levels and ways of participation, but also implied that all participants, through increased involvement, have access to, acquire, and use resources available to their particular community.

*Defining LPP*

Lave and Wenger (1991) stated, “… legitimate peripheral participation is not itself and educational forum, much less a pedagogical strategy or teaching technique. It is an analytical viewpoint of learning a way of understanding learning” (p. 40). LPP provides a framework or theoretical map of the territory members of a community of practice navigate from the periphery, where they most often begin as newcomers, to the center where they become oldtimers. According to the authors, the key to LPP is, “… access by newcomers to the community of practice and all that membership entails” (Lave & Wenger, 1991, p.101).

*Defining CoP*

According to Wenger (1998) a community of practice is a site of learning and activity with learners sharing ways of specialized acting and thinking. Knowledge, skills, and access to a “… wide range of ongoing activity, old-timers, and other members of the community; and to information, resources, and opportunities for participation “(Lave & Wenger, 1991, p. 101) indicate full membership, thereby constitute the definition of a community of practice.

To illustrate the role of LPP within communities of practices, Lave and Wenger (1991) examined five apprenticeship scenarios (Yucatec midwives, Vai and Gola tailor, naval quartermasters, meat cutters, and non-drinking alcoholics involved in Alcoholics Anonymous). Their analysis of apprenticeship across five different communities of learners lead them to
several conclusions about LPP within a community of practice, and its relationship to successful learning. The keys to newcomers' success included:

- access to all that community membership entails,
- involvement in productive activity,
- learning the discourse(s) of the community including "talking about and talking within a practice," (p. 109), and
- willingness of the community to capitalize on the inexperience of newcomers,

"Insofar as this continual interaction of new perspectives is sanctioned, everyone's participation is legitimately peripheral in some respect. In other words, everyone can to some degree be considered a 'newcomer' to the future of a changing community" (Lave & Wenger, 1991, p. 117).

The previously stated four items will be part of a situated assessments to ascertain learning outcomes associated with the proposed instructional task—mindful eating—and will be revisited later in this paper.

**Mindful Eaters Eating**

The Center for Contemplative Mind in Society (2008), an organization leading the contemplative practices in education movement, defined mindfulness as, “Mindfulness is not thinking, interpreting, or evaluating; it is an awareness of perception. It is a nonjudgmental quality of mind which does not anticipate the future or reflect back on the past” (Mindfulness Meditation section, para. 1). Mindfulness can be practiced in any and all of life’s activities; for some, mindfulness is more like a way of life than a specific practice. Among mindfulness practices meditation, walking, and eating are the most common. According to The Center for Mindful Eating (2008) the principles associated with mindful eating are:
• Allowing yourself to become aware of the positive and nurturing opportunities that are available through food preparation and consumption by respecting your own inner wisdom.

• Choosing to eat food that is both pleasing to you and nourishing to your body by using all your senses to explore, savor and taste.

• Acknowledging responses to food (likes, neutral or dislikes) without judgment.

• Learning to be aware of physical hunger and satiety cues to guide your decision to begin eating and to stop eating. (Principles of Mindful Eating section, para. 3)

*Instructional Task*

The instructional task is to teach a group of individuals mindful eating.

*Subjects.* The participants will be a group of adult learners who may or may not have prior experience in mindfulness practices (mindful eating or other wise).

*Environment.* The instruction will take place in a formal learning environment (i.e., a classroom on a university campus) where participants will be seated around a conference-style table.

*The instructional scenario.* The instruction of mindful eating will be delivered by an experienced mindfulness practitioner. The instruction will be hands-on. Participants will be learning about mindful eating while they are practicing mindful eating themselves during the delivery of instruction. The instructional script would include key elements such as:

1. “Notice on the table in front of you there is a Hershey’s Kiss. Take a deep breath and imagine yourself picking up the Hershey’s Kiss and slowly unwrapping it, all the while focusing on the smell of the chocolate, how it feels between your fingers, how your mind and body are completely present and experiencing this and only this
specific moment. Now pick up the Hershey’s Kiss and place it in your mouth. Take a deep breath as you respond to the flavor, without judgment.” [Instructor would continue to facilitate the mindful eating of the Hershey’s Kiss.]

2. A good follow up to this type of instruction would be a think-pair-share activity with a stem like: “While practicing mindful eating of the Hershey’s Kiss my mind and body…”

3. After the group share, another mindful eating episode would take place immediately, using a Sour Patch Kid candy for example.

4. The second episode would be followed by a group dialog facilitated by the instructor who would (using information they gathered from the first discussion) encourage any more experienced mindfulness practitioners to share their experiences with the mindful eating in relation to other mindfulness practices.

Mindful Eaters Eating within a Community of Practice

In the effort to assess if and how the instructional task might evidence the Lavean model of legitimate peripheral participation within a community of practice I first compare the participants’ CoP (i.e., a community of mindful eaters, or more generally folks practicing mindfulness) with Lave and Wenger’s (1991) key attributes of individuals involved in community of practice (See Table 1). Then I examine all of the ways and possibilities of LPP to Wenger’s (1998) description of “learning trajectories” (which came after his work with Lave) and was one way to operationalize LPP.

“Learning trajectories” (Wenger, 1998) described how a member of a CoP moves from the peripheral to the center of the community. It also named other ways participants move about a CoP. The learning trajectories model provides a way to operationalize LPP (See Table 2).
Overall, you will note the absence of assessment(s) which attempt to quantify and measure legitimate peripheral participation within a community of practice. This is owned to the Lavean belief that "Activities, tasks, functions, and understandings do not exist in isolation; they are part of broader systems of relations in which they have meaning….Learning thus implies becoming a different person with respect to the possibilities enabled by these systems of relations" (Lave & Wenger, 1991, p. 53). The authors did not hold a particularly unique position regarding assessment (and learning) within the field of situativity theory. As a matter of fact John Dewey (1938) described education as an essentially "social process" through which a mature individual "surveys the capacities and needs" of learners and creates experiences for them to further develop. Quality of education (learning) is realized in the, "...degree in which individuals form a community group" (Dewey, 1938, p. 58). Thusly, within the realm of situated cognition, the assessment presented here is intentionally situated and testifies to the way mindful eaters move from the outside of a CoP to the inside via LPP. For many, this type of assessment is questionable and not valid; especially in the way it may or may not translate to more structured, defined knowledge “domains” such as high school algebra.

Criticism of Lavean Theory and Practice

Some of the harshest institutional critique leveled against Lavean theory and practice (and against situated cognition in general) concerns assessment in situ and transfer of learning. Additional critiques relate to the role of the instructor and the management of the learning community.

Institutional Critique

Assessment and transfer. Adopting the situative perspective of assessment means a move away from standardized testing (from quizzes to the SAT). The complexity, subjectivity, and
lack of uniformity of assessment are unacceptable within the current culture of schooling. Critics wonder, “How can we expect teachers to create individual assessments for students?” And, "What products [artifacts of re-produced knowledge] will serve as valid evidence of students’ learning to participate appropriately in a community of practice?” (Driscoll, 2004, p. 178).

Furthermore, within the model of LPP within a CoP, how can we measure if a learner can apply what they learned from one problem to the next? Lave (1988) stated, "Learning transfer is assumed to be the central mechanism for bringing school-taught knowledge to bear in life after school" (p. 23). She wrote from within her biases to be sure, as her comment was certainly sharp. Yet, it rings true and critics want to know—does the mindful eater of Hershey’s Kisses mindfully transfer her practices to other mindful activities?

*Role of instructor.* Using the CoP model within formal learning environments (a 4th grade biology class being biologists instead of 4th graders, for example) places a huge responsibility on the individual instructors. Driscoll (2004) asserted, “When the situative concept of communities of practice is applied to a classroom context, it becomes apparent that the culture of the classroom has to change” (p. 177). Who bears the responsibility of motivating and managing that type of change? Individual teachers do. They would have to facilitate and steward the transformation of a classroom from one where teacher and textbooks give students knowledge to one where students, “…come to the learning task with different interests and experiences and are provided the opportunity within the community to learn different things” (Driscoll, 2004, p. 177). Who has time for all that?

*Learning community.* Critics might assume that all members of the CoP share a single set of values or standards (Greeno, 1998). Wenger, McDermott, and Snyder (2002) offer the harshest and most thorough critique of communities of practice. They list several downfalls of
the model including many interpersonal issues that may spring up like cliques, where,
“…relationships among members are so strong that they dominate all other concerns” (p. 145).
The authors also address limitations of “sharing practices” within a community where members get overly accustomed to their own discourses and ways of being that they may exclude others including potential newcomers (Wenger et al, 2002). Another example of this could be when teachers in training graduate and being teaching they may, “…discover that the practices of the community in which they are apprenticed [read: their school placement] are different from what they were taught [read: teacher training]” (Driscoll, 2004, p. 175).

Garcia’s Critique

Over the course of the entire semester I have been apprenticed in a community of practice myself (with Dr. Young as the oldtimer) learning about situated cognition. Lavean theory and practice was but one of the contributions to situativity theory we covered. I must confess being an “insider” within that CoP illuminates the difficulties one faces when asked to critique their own community, practices, paradigms and worldview. Perhaps this is the strongest critique I can currently level against legitimate peripheral participation within a community of practice. My critique calls to task a model of learning where human agency may be overcome by the modalities of the community. At what point would the community itself begin to stagnate due to the lack of criticality among its members?

To conclude, I must (re)testify and agree with Greenbank (2003) who asserts those who profess to carry out value-neutral research are “deluding themselves.”

---

2 A similar scenario is evidence by the long-standing debate between Cognitivists and Situativists neither camp can rightly critique themselves, therefore struggle to unveil the ways and means for collaboration in the name of advancing research in cognition.
References


<table>
<thead>
<tr>
<th><strong>Key attribute</strong></th>
<th><strong>Description</strong></th>
<th><strong>Mindful eaters CoP</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>Learners must have access to all membership entails including oldtimers, resources, and activities.</td>
<td>The mindful eating instruction afforded all present equal access to the experience, each other, and the instructor. The only hindrance to access might be a person’s inability or unwillingness to consume the candy.</td>
</tr>
<tr>
<td>Productivity</td>
<td>A newcomer must be engaged work considered productive among members of the community.</td>
<td>The work of a community of practice centered on mindful eating is practicing mindful eating and reflecting on mindful eating. The instructional task affords for both hands-on practice and reflection.</td>
</tr>
<tr>
<td>Discourse</td>
<td>Newcomers must be afforded opportunities to learn to talk about and “within” the community; speak the language.</td>
<td>Time for dialog is included. The more experience members of the CoP, including the instructor who may be an oldtimer, will talk about mindful eating using the discourse of mindfulness. Reflection after each mindful eating episode provides the newcomer time to practice discourse within the nexus of the community.</td>
</tr>
</tbody>
</table>
Table 1 (continued).

<table>
<thead>
<tr>
<th>Key attribute</th>
<th>Description</th>
<th>Mindful eaters CoP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanctioned</td>
<td>Newcomers’ “newness” with the work/practice of the community must be</td>
<td>At some point during the instructional task, especially during the reflection, a</td>
</tr>
<tr>
<td>inexperience</td>
<td>welcomed; all members can theoretically be newcomers at any time if “new</td>
<td>newcomer may offer an idea or describe a way of being that may be different or</td>
</tr>
<tr>
<td></td>
<td>perspectives are sanctioned” by the community.</td>
<td>new to the CoP. For example, they might suggest turning the lights off in the room</td>
</tr>
<tr>
<td></td>
<td></td>
<td>to help participants feel a greater sense of presence with their mouth and the act</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of eating (versus what it looks like to others, or how others in the CoP are</td>
</tr>
<tr>
<td></td>
<td></td>
<td>practicing). This suggestion would be welcomed by the instructor even if it is not</td>
</tr>
<tr>
<td></td>
<td></td>
<td>adopted at that moment.</td>
</tr>
</tbody>
</table>

### Table 2

**Assessment of Mindful Eating as LPP**

<table>
<thead>
<tr>
<th>Learning Trajectory</th>
<th>Description</th>
<th>Mindful eaters LPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peripheral</td>
<td>Learners who implicitly or explicitly are excluded from participation; never engage in full participation.</td>
<td>This is a potential identity for individuals who opt out of the exercise based on preference or dietary restrictions. This scenario would be further exacerbated if other community members or the instructor responded negatively to the individual’s choice.</td>
</tr>
<tr>
<td>Inbound</td>
<td>A newcomer who is headed towards full participation; continued growth in practices of community.</td>
<td>Members who make the decision to participate fully in mindful eating, who engage in the practices in a nonjudgmental way, and who do the work of the community (i.e., mindful eating) with intention and attention.</td>
</tr>
<tr>
<td>Insider</td>
<td>A full and active participant; an oldtimer.</td>
<td>The facilitator and/or other members of the CoP who have previous experience with mindful eating or other practices may be considered the “insiders” aka oldtimers. These individuals will be looked to by the folks on an inbound trajectory as models therefore putting them at the center of the community.</td>
</tr>
<tr>
<td>Trajectory</td>
<td>Description</td>
<td>Mindful eaters LPP</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Boundary</td>
<td>“Occur when learners sustain membership and participation in related communities of practice” (Driscoll, 2004).</td>
<td>Individuals who have practiced other ways of being mindful or even similar activities not considered part of the greater mindfulness practices (e.g., long distance running, gardening, or other activities that elicit deep, mind-body responses) may be considered on the boundary.</td>
</tr>
<tr>
<td>Outbound</td>
<td>In the process of leaving a community.</td>
<td>Potential scenarios for being an outbound participant might include voluntarily leaving the community to pursue other interests; moving from being an oldtimer to a newcomer by taking on a new practice, adding the element of cooking the meal into the mindful eating practice for example; or being cut-off from access to the CoP (intentionally or unintentionally).</td>
</tr>
</tbody>
</table>

*Note. Descriptions adapted from Wenger (1998) unless otherwise cited.*