Anti-Poverty Community Organizing and Learning (APCOL)

WORKING PAPER #3

Engagement, identity, emotion and learning:

A pre-apprenticeship program case study

Sue Carter

April 2013

Centre for the Study of Education and Work, OISE, University of Toronto
252 Bloor St. West, Room 7-112, Toronto ON M5S 1V6
Telephone: 416-978-0515 Email:info@apcol.ca

Funded by the Social Sciences and Humanities Research Council of Canada

The Anti-Poverty Community Organizing and Learning (APCOL) project represents a partnership effort across several post-secondary institutions and a range of community-based groups in Toronto (Canada). This project was funded by the Social Science and Humanities Research Council of Canada, under its Community University Research Alliance program (2009-2014). Drawing on carefully designed survey and case study methods as well as a participatory action research orientation - the aim of this research project has been to offer the most intensive study of activist learning and development in anti-poverty work in Canada.

The co-editors are pleased to present its official working paper series. The publications contained in this series are linked to APCOL project work and themes. They are authored and co-authored by academic as well as community-based researchers. The material is the copy-right of individual authors or co-authors. Rights for use in the APCOL Working Paper Series is granted to the APCOL project for these purposes only.

Engagement, identity, emotion and learning:

A pre-apprenticeship program case study

Sue Carter
Ontario Institute for Studies in Education
University of Toronto

Abstract: The aim of this paper is to sketch out a relationship between competency, agency, identity construction and learning in the context of a pre-apprenticeship program at an urban Ontario community college. It takes as starting point that learning is a social practice and applies theoretical and methodological practice of cultural historical activity theory, with a particular focus on the practice of identity construction. Applying a socio-cultural perspective to the pre-apprenticeship case study yields insight into learning that is useful for educators (in terms of project planning and evaluation and more broadly) and for social movement learning theorists concerned with the intersection between anti-poverty initiatives and anti-poverty activism.

Keywords: apprenticeship, cultural historical activity theory, figured worlds, social movement learning theory, identity, engagement, emotion, sociocultural learning theory, narrative, testimony, peer networks, perezhivanie, masculinity

ENGAGEMENT, IDENTITY, EMOTION AND LEARNING: A PRE-APPRENTICESHIP PROGRAM CASE STUDY

I think people needs an opportunity to work.
This is very important education and work.
Because people can live with work.
(Case study participant, APCOL)

This paper aims to explore relationships between engagement, identity, emotion and learning, and to discuss how identity is practiced in learning activity, by means of key tools. How do people practice becoming themselves – what tools do they use in constructing transformation? How is the process of 'becoming' synonymous with learning? How is 'becoming' inherently a social practice with individual and collective outcomes?

This paper is based on an empirical study of pre-apprenticeship program directed at marginalized populations seeking to transition out of precarious informal work and / or unemployment, and into the construction trades. The program participants enrolled in had no pre-requisites, and offered important material supports (e.g., free tuition, subway tokens, equipment such as safety boots, work belt and tools, hard hats) that addressed many of the barriers typically confronting this population. The program combined in-class instruction and hands-on practice with job-site experience.

There is a strong rationale for pre-apprenticeship programs that offer material support and meaningful access to legitimate employment opportunities for marginalized populations - i.e., programs that understand the education-jobs gap through the lens of access, social difference and equity (Livingstone, 1999). A well-designed apprenticeship program is not only 'hands-on', but takes situated learning seriously – providing meaningful access to existing communities of practice and offering students real opportunities at what Lave & Wenger coined "legitimate peripheral participation" (1991); proffering the means to transition out of social assistance and/or the informal economy into decent, well-paid skilled jobs.

SOCIOCULTURAL THEORIES OF LEARNING

Sociocultural theory is based in a series of key ideas that emphasize the dialectical relationship between the individual and her world. In general terms, sociocultural views of learning hold that a) learning is inherently a social not an individual process b) that learning occurs through activity, not 'in the mind' c) that learning ought to be understood as process not product. Sociocultural theorists reject an acquisitional model of learning or knowing, they focus on 'doing' rather than 'having' knowledge. Sociocultural theories are rooted in Marx's dialectics, particularly as the relationship between the individual and her world is mediated by activity (Vygotsky, Leont'ev). Learning and development is an historic, social, cultural, collective process: it occurs in relationship with others and exists in time and space. Sociocultural perspectives emphasize dynamics between collective object/motives and individual purpose.

Over the past thirty years sociocultural theorists have deepened and debated our understandings about engagement/motivation/participation in learning. To varying degrees and in varying ways they have picked up the question of emotion as it relates both to the learning process and to the role it plays in engagement (shaping and being shaped by levels of participation). In part this paper is my own first attempt at thinking through a sociocultural view of emotion and learning, via the question of engagement. I begin by briefly laying out characteristics of two sociocultural approaches to learning:

activity theory and figured worlds. I briefly discuss how each tradition understands motivation/engagement/participation, particularly as it relates to identity, and then further narrow my focus to look at peer networks and narrative/testimony as key artefacts/tools of identity construction.

WHERE AND HOW DOES LEARNING HAPPEN?

Sociocultural theorists agree that learning occurs in activity. But within sociocultural theory a number of traditions have emerged. Situated learning theorists describe learning/development as "changing participation in changing practices" (Lave, 1996, 161), powerful and robust conceptions of learning that focus on

> breaking down distinctions between learning and doing, between social identity and knowledge, between education and occupation, between form and content […] at the same time / they suggest that intricately patterned relations between practices, space, time, bodies, social relationships, life-courses-ubiquitous facets of ongoing communities of practice – are both the content and the principle of effectiveness of learning. (Lave, 1996, 153-54)

In many respects theories of situated learning recommend that we place identity at the centre of learning (Bobbitt Nolen et al., 2011). This prompts us to ask about 'tools in use' of identity construction: what are they? How do they afford or constrain development? How are they accessed? What role do they play in determining levels of engagement in learning; and what are the individual and collective dimensions of these mediating artefacts? How do we understand affect in relation to the process of 'becoming'?

Cultural historical activity theorists (CHAT) emphasize learning within (and between) *activity systems*. Activity is motivated by object (Leont'ev) and reflects and results from the interplay between individual and collective purpose. The learner's overall purpose/broader object relates to both immediate and long-term goals (which drive

operations within the activity system). Learning activity is mediated in part by the learner's historical, cultural, social situation (e.g., race, class, past experience, location), in part by key tools s/he interacts with (e.g., classroom lessons, project, materials), in part by his/her community (friends, workmates and leaders, peers, etc.), in part by historical/social conventions and divisions of labour – all of which afford and constrain activity (Leont'ev, 1982 ; Engestrom, 1999).

> CHAT emphasizes, above all, the activity of actors toward objects or goals. Like pragmatism, CHAT focuses on interaction among actors who have objectives and who identify and try to solve problems. The unit of analysis, however, is the 'activity system' which includes artifacts, rules and divisions of labor that mediate this activity, rather than the individual 'mind'. (Krinsky, 2008, p.30)

Activity systems are multi-voiced: differentiated learning reflects socio-historic positioning of the subject as s/he interacts differently with key artefacts and with rules, division of labour, and community – and in turn shapes and is shaped by this interaction. An activity system approach surfaces the creative, transformative, improvisational and collective nature of learning, in particular by focusing on the expansive learning that takes place through the process of resolving tensions between contradictions within and between activity systems (Engestrom, 1999; Sawchuk and Stetsenko, 2008). Taking multiple activity systems as the base unit of analysis (Engestrom, 2001) allows us to better understand how development and engagement in one activity system shapes and is shaped by that in another, and acknowledges the interplay and messiness of our lives and learning.

Sociocultural theorists Holland et al., introduced the concept of *figured worlds* to describe sociohistorically re/produced fields we enter into (or are recruited into) (1998). For example, the 'figured world of the classroom', the 'figured world of romance', the 'figured world of the underground economy', etc. Figured worlds are "processes or traditions which gather us up and give us form as our lives intersect them". And, like

activity systems, they are social encounters in which positions matter: “they proceed and are socially instanced and located in times and places”.

> Figured worlds … supply the contexts of meaning for actions, cultural production, performances, disputes, for the understandings that people come to make of themselves and for the capabilities that people develop to direct their own behaviour in these worlds (1998, p.60)

It’s tempting to conflate activity systems with figured worlds. However, activity systems are defined by *object* (and so the same action undertaken with different motives is actually a different activity system – looking into a mirror and looking at a mirror describe two activity systems - to borrow from Goffman). Figured worlds describe “as-if” constructs, socially organized and reproduced *contexts* for activity[i] an individual enters into[ii]. So, in this sense figured worlds and activity systems can be considered separate approaches or as parts of a whole (with each concerned with the ways learning/activity is mediated by artefacts, community, rules, division of labour, etc.). We will take them as parts of a whole, with the presumption that both allow for important and useful extensions to the other, in an inquiry into engagement, identity, and emotion in learning.

MOTIVATION IN LEARNING: OBJECT

> What motivates learning? Or, put another way, what drives participation in activity? How are we to understand engagement / participation / in activity? As Bobbitt Nolen et al. point out, “studying engagement as an aspect of social practice provides an opportunity to uncover a range of values, goals, and meanings and their development” (2011, p. 12), though there are varying definitions of engagement which have implications for how it is studied and how it comes to be explained[iii].
>
> Sociocultural theorists have considered engagement as a characteristic of participation in activity systems or communities of practice (Greeno, 1998:

> Hickey & Granade, 2004; Plaut & Markus, 2005). Rather than distinguishing engagement from participation, these researchers study engagement as an *aspect* of participation, arising through interaction and meaningful in relationship to identities, goals, and norms. (Bobbitt Nolen et al., 2011, p.111)

> Taking a more sociocultural or situative view of motivated engagement that foregrounds the activity systems (figured worlds or communities of practice) in which it occurs provides an opportunity to explore both social and individual reasons for participation... (Bobbitt Nolen et al., 112)

According to activity theorists, activity systems are defined by object. Learning development is shaped by (and in turn shapes) object. And so, for some activity theorists, concepts like motivation are bourgeois notions only to be understood as squeezing the most out of labouring classes (Roth, 2011), or are altogether moot, because object suffices (Hickey, 2011). According to Leont'ev,

> 'Object'/motive reflects, but is not limited to need. Need, as realized in the process of activity, transforms from 'prerequisite for activity' to 'result' (Leont'ev, 1982, Chapter 5.1).

Engagement, is thus part of an object-activity-need feedback loop. "A change in the object/motive of the activity allows the emergence of interest" (Leont'ev, 1982 in Roth, 2011, p.54). Roth strips engagement in activity back to "nothing other than orientation toward potential 'pay-offs' that comes from positive valuation of the inner conditions for the organism subsequently realized as 'need satisfaction'" (2011, p. 48). He notes that what differentiates human engagement from and that of single-celled organisms, is our human capacity to place value (emotionality) "not only the satisfaction of needs but also [on] the increase in control over life conditions" (2011, p. 48). In other words, engagement reflects and is driven by an affective-cognitive concept of need aimed at improving conditions. According to Roth,

> actions are not the result of cognition, but inherently mediated by emotional valuations that arise from and reflect/refract the assessment of the current relations and mediate selection of goals and actions that move the activity further along toward the anticipated outcome. (2011, p. 52)

This is perhaps starker than the transformative emphasis of activity theory put forward by Sawchuk and Stetsenko ("always oriented by some narrow or expansive form of social and transformative activity, that is, making a difference in the world and having practical implications in it." 2008, p.343), but still consistent with sociocultural theory, providing we read the collective/individual dialectic into Roth's connections between emotion and activity.

Roth's explanation for engagement is cognitive-affective and relies on a relationship between present and future (engagement stems from the result of positive valuation that measures future maneuvrability with present positioning).

> The object/motive of activity reflects the inner contradictions between the current material state and conditions (i.e., tools, materials) and future, anticipated ideal states (product). (2011, p.50)

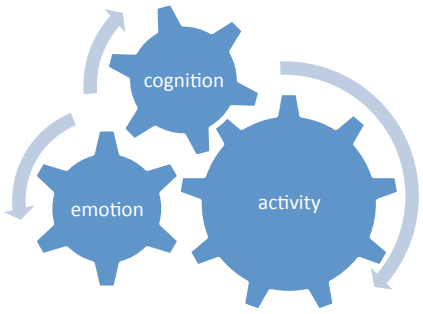
This prompts us to look more closely at the relationship between present and future activity systems (or figured worlds) but should also suggest we investigate relationships between multiple activity systems (present, future). Arguably the past ought also to figure into these 'valuations', but Roth makes no explicit mention (which may be because he assumes this is a given for cultural *historical* activity theorists, but it bears being clear that analysis of emotion demands that we look at interplay of past/present/future. While activity theorists are keen to acknowledge historicity, there is some difference in approaching this as baggage come forward versus activity systems (past, present future) in current play (Engestrom's multiple activity systems unit of analysis), which is the approach we take below with respect to our case study.

Roth and others (e.g., Greeno, 1998; Nasir and Hand, 2008) document the relationship between object, engagement and activity, but a more thorough understanding of this 'positive valuation' that correlates the three requires a better understanding of emotion. Such an understanding would have us interrogate emotion both as artefact and as process (the cognitive-affective dynamic). Sociocultural theorists appear to be more adept at interrogating the cognitive side of any cognitive-affective approach to development than the affective side. A more pronounced sociocultural view of emotion – emotion not as something we 'bring' to activity, but as equally generated in and through and by activity (with all its attendant mediations) - would be more useful, especially to questions of engagement and object-formation and reproduction. While on the one hand these inquiries might be more deftly handled by a poststructuralist-inspired interrogation into the making of emotion (or at the very least, the making of desire), activity theory itself offers important tools for better understanding emotion. What activity theorists offer that could aid in this discussion is threefold: a recognition of emotion as part and parcel of cognition (tracing back to Vygotsky); emotion as hinged to relationship between past, present and future (which in turn invokes multiple activity system analysis); and tools for analyzing emotion as mediated activity (an activity systems approach to emotion). The last point turns back in on the first, compelling us to apply activity theory to emotion – rather than, as Vygotsky did, see emotion as lurking 'behind' cognition:

> [Thought] is not born of other thoughts. Thought has its origins in the motivating sphere of consciousness, a sphere that incudes our inclinations and needs, our interests and impulses, and our affect and emotions. The affective and volitional tendency stands behind thought. Only here do we find the answer to the final 'why' in the analysis of thinking (Vygotsky, 1934/1987, p. 282).

But emotion is not 'born of emotion', any more than thought is born of thought. Rather, we can consider thought and emotion as interlocking processes located in and through activity (gears?). Activity theory's allowance for nested activity systems may be a helpful way of understanding emotion as being shaped by and shaping learning (if we were to

say, ‘nest’ emotion in development). But likewise, emotion needs to be considered through the interplay between multiple activity systems. Affect and cognition, while two sides of the same coin, can still have both separate and interlocking histories that come into play in any activity system[iv]. I will attempt to sketch this out later with respect to our case study. Finally, where Roth speaks to the ‘positive valuation’ linking activity and engagement, we would of course equally need to probe the role that ‘negative valuation’ plays in engagement – and also consider the role of neutral or mixed/complex cognitive-affective valuations on engagement.



MOTIVATION IN LEARNING: IDENTITY

> “People tell others who they are, but even more important, they tell themselves and then try to act as though they are who they say they are. These self-understandings, especially those with strong emotional resonance for the teller, are what we refer to as identities” (Holland et al, 1998, p. 3)

Theories of situated learning (Lave and Wegner,1999; Lave, 1996; Holland et al, 1998) place identity (as a continual practice of becoming) at the centre of their analysis of the learning process. Identity then becomes key to engagement in learning, but is likewise created through activity (the feedback loop between object and activity).[v] Learning is an on-going process of becoming ourselves: developing the skills and knowledge associated with effectively putting identity into practice. Engagement reflects the desire to become increasingly central in a community of practice, while at the same time it is, in part a measure of *identities in practice* (Boler & Greeno, 2000; Nasir & Hand, 2008; Bobbitt Nolen et al., 2011). In other words, identification and participation in/with collective activity is central to object; learning is tied to the process of becoming, and becoming to desire for belonging. “Goals are thought to arise through participation in the

communities of practice in which they are employed (Hickey & Grenade, 2004; Holland et al., 1998; Wenger, 1998)" (Bobbitt Nolen et al., p.114).

The position that we are constantly in practice, ever in a state of becoming (Leont'ev, Holland, Lave), signals the near elliptical relationship between the process of learning and a process of becoming.

Bobbitt Nolen et al. put forward "three sources of motivation for engagement: the social world (figured world or community of practice including its goals, values and the possible identities); the obligations created in those social worlds; and the ongoing and negotiated histories of both individuals and communities of practice" (2011, p. 112).

> "Sociocultural perspectives view motivation as both fundamentally situated and ontological. It is situated because a broader, deeper understanding of motivation depends on a careful understanding of the contexts from which goals emerge. Likewise motivation is ontological because it describes more than a person's goals or objectives, but who they think they are in the world... Understanding the sources and development of learner's motivation, engagement, and identity requires theories that carefully take into account both the individual and the social" (2011, pp. 131/132)

Holland et al. view identity and agency through the lens of activity, use of mediated objects/tools, and play – as a process that is "situated in historically contingent, socially enacted, culturally constructed 'worlds'" (1998, p. 7). They contrast their conception of identity with traditional anthropological and cultural studies approaches, which understand identity as more strictly in/formed by structural features of society (e.g., gender, race, class, sexuality, etc.). Holland et al. base their work in part on Bakhtin's ideas of 'history-in-person / self-in-practice' and in part on Vygotsky's work, including the critical role of tools (mediated objects/artifacts/symbols) in "affecting and reorganizing experience" (Holland et al.,1998, p. 35), but also as "tools of liberation from control by environmental stimuli" (p. 63). According to Holland et al., figured worlds

distribute us – “spreading our senses of self across different fields of activity, but also giving the landscape human voice and tone”[vi].

> “How do these culturally constructed worlds become matters of desire? How do people’s senses of themselves in these worlds become engaging? How do persons become agents in these worlds? How do these worlds become prisons? How do people together create new cultural worlds? How do their subjectivities expand or reform so that they are able to inhabit new worlds?” (Holland, 1998, p.8)

As Holland et al. point out, this is paradoxical: “how does liberation from the particular determinations – the entrapments – of our cultural world come about through the tools shaped in those worlds for their perpetuation?” (1998, p. 64).

As indicated, activity theory and figured worlds overlap in key ways: both involve attempts to understand human development (individual and collective) in activity, and both are share similar understandings about transformation as mediated by key artefacts. However, activity theory places greater emphasis on object, and a concept of figured worlds places greater emphasis on identity. So the question then is about the relationship between identity and object, a question which activity theory today leaves largely unanswered / unproblematized.

> whereas the original CHAT worldview provided outlines to understanding subjectivity as an agentive process that originates from, exists within, and is composed of practical transformations of the world by people, more contemporary works came to view subjectivity as a passive reflection (copy) of the world albeit somehow ‘related’ to activity and ‘situated’ in context (Sawchuk & Stetsenko, 2008, p.344)

It is to this question of subjectivity as an agentive process, that we now turn.

ARTEFACTS OF LEARNING IDENTITY

> Figured worlds depend on artifacts…. artifacts 'open up' figured worlds. They are the means by which figured worlds are evoked, collectively developed, individually learned and made socially and personally powerful. (Holland et al., 1998, p.61)

If we place identity at the centre of learning activity, an activity theory analysis would have us ask about the mediating roles of community, division of labour, rules, and key artefacts. Further, it would prompt us to consider multiple and overlapping activity systems, including current, past, and future-anticipated. Type and level of engagement would be in relationship with our imaginary future selves and situations and with (and against) the backdrop of past, present, and future activity system community (which may be understood as community of practice, or more loosely as peer network). How is identity afforded and constrained within (and between) these communities/activity systems? What is the correlation between identity affordance and level of engagement? How do we access and develop representations of our 'future selves'? (Nolen, 2011; Boaler & Greeno, 2000; Cobb et al., 2009; Nasir & Hand, 2008).

> People are active, thinking and feeling agents whose practice is mediated by the (conscious and tacit) use of the full range of symbolic, cultural and material artifacts at their disposal – they show agency but within the historical context of available artifacts (Sawchuk & Stetsenko, 2008, p. 357).

> These collective 'as if' worlds are sociohistoric, contrived interpretations or imaginations that mediate behaviour and so, from the perspective of heuristic development, inform participants' outlooks (Holland, 1998, p.53)

Becoming, and practicing identification with community, includes positioning self and being positioned by others. Our focus is on the following key tools that mediate 'becoming': narrative and testimony, peer networks, and skill/task competency.

1. NARRATIVE AND TESTIMONY

Holland et al., have conducted important field research on the role of narrative and testimony in identity construction within figured worlds.

> Players become ever more familiar with the happenings of a figured world – the stories told in AA, for example – and learn to author their own and make them available to other participants. By means of such appropriation, objectification, and communication, the world itself is also reproduced, forming and reforming in the practices of its participants." (1998, p. 53).

Their research included studies of the individual and collective use (and dynamic mechanics) of narrative in the figured world of AA, and the use of 'diagnosis' as a bootstrapping tool in the figured world of mental illness. Vygotsky pioneered sociocultural understanding of semiotic mediation as transformative: "as soon as speech and the use of signs are incorporated into any action, the action becomes transformed and organized along entirely new lines" (Vygotsky, Chapter 1), allowing us to understand symbolic representation both as labour (the use of higher mental functions to voluntarily control behaviour), and as tool. Holland et al., relate how narratives function along these lines as a key artefact (and dialectic) between the individual and the figured world (simultaneously about both self-production and collective production). As they note, this labour, these narrative artifacts, are key tools of identity construction and are used with varying degrees of success. Further, there are "enormous differences in what and how learners come to shape (and be shaped into) their identities with respect to different practices" (Lave, 1996, p. 161).

Narrative use in figured worlds provides insight into the affect side of cognitive-affect development; we can investigate the particular role of narrative as (re)producing and reflecting desire, pride, legitimacy, confidence, belonging, and agency in the interplay between subject identity, engagement in activity, and community. Again, we can understand emotion not as inherent characteristics behind cognition, but socio-culturally produced in and through activity (as part and parcel of development) – in this case the activity of becoming, and the sub-activity of narrative/testimony.

2. PEER NETWORKS

> Individual development is partially determined by a group's development, a group's development is partially determined by any individual member's development, and all development is partially determined by the group's collective actions in relation to other groups' collective actions within a sociocultural context. (Kilgore, 1999, p.197)

> Individualized learning theories do not adequately explain a group as a learning system, nor do they necessarily situate the learning process correctly between 'knowing' and 'doing'. (Kilgore, 1999, p.191)

Peer networks and communities of practice figure prominently in sociocultural theory as mediators of learning, as motivators of engagement, and as co-(re) producers of systems/figured worlds. Understanding peer networks not as structures with formal rules, but rather as creative, improvisational processes that play a key role in development allows us to better understand community as activity, and as mediating learning in activity systems (Holzman, 2005, p.1). As Holzman says: "to build community human beings need to develop, and to develop human beings need to build community" (2005, p.1).

Becoming a member of a community of practice is powerful mediator of engagement, and requires a combination of positioning oneself and being positioned by others (as

belonging). This positioning is afforded/constrained within figured worlds and is afforded/constrained by the multiple other figured worlds to which one belongs.

> We conceive persons as composites of many, often contradictory, self-understandings and identities, whose loci are often not confined to the body but over the material and social environment,' and few of which are completely durable. (Holland, 1998, p.8)

Activity theory help us better understand the mediating influence of multiple (and nested) activity systems as both affording and constraining this (individual and collective) development. In our empirical study outlined below we will focus primarily on the affordances of multiple activity systems as mutually reinforcing/constructing identity, but we are equally mindful of situations where overlapping activity systems/figured worlds work against development and constrain participation within and/or across activity systems. For an example of constraints within activity systems see Neilsen's study of female apprentices in male-gendered figured world of bakeries (2008); for example of multiple overlapping activity systems constraining engagement/identity development see Hodges (1998) description of her unsuccessful attempt to integrate into (heteronormative and female-gendered) figured world of early childhood education, and Thomas' preliminary accounts of SouthAsian immigrant women in Canada straddling multiple figured worlds/activity systems constraining identity practice within and between activity systems of community, family, and paid employment (APCOL, 2011).

According to Kilgore (1999), individual components of a theory of collective learning include: identity, consciousness, sense of agency, sense of worthiness, and sense of connectedness. Group components are: collective identity, group consciousness, solidarity and organization. Activity systems are defined by shared object; or in Kilgore's words, by the "group's vision of social justice that drives it to act" (1999, p. 191). This includes a "shared meaning and identity of the collective" (1999, p.196) developed in

part through the process of constructing solidarity (she notes that “solidarity is not only an outgrowth of action, but also an objective for action” (1999, p.199).

3. COMPETENCY

The relationship between skill development and identity construction is a bit of a hall of mirrors: skill development supports identity construction and identity construction motivates skill development; identity construction is itself a skill and requires skills; skills exist only in use, not in abstract – skills-in-use are linked to both object and community; skills are key artefacts in the practice of becoming and belonging; becoming and belonging motivate skill development; skills and identity are both sociohistoric constructs and are value-laden.

Situated learning theorists explain engagement in skill development (acquiring competency) through identity. For example, Lave differentiates between learning math, and learning to become someone who uses math. As educators this means we need to think not only in terms of math in use, but math in use by community of practice. Nasir and Hand’s research into basketball learning “provides a close account of how the affordances of activity systems might support what motivation theorists have termed intrinsic motivation” (in Nolen, 2011, p.125). They establish relationship between developing competence and developing identity.

Turning now to our case study, we will look at these artefacts (narrative/ testimony; peer networks; and skills/competency in relation to the question of identity in practice and learning engagement).

CASE STUDY

The focus of the case study is on the experiences of participants in a construction trades pre-apprenticeship outreach program designed to provide transitions for so-called “at-risk population” from several neighbourhoods in a large urban area.

Eighteen participants were interviewed toward the beginning of the program (seventeen men, one woman) and two focus groups (all male) were conducted toward the end of the program. Questions related primarily to motivation and barriers to participation in the pre-apprenticeship program, and included questions directed at building profile of participants' lives.

> A starting point for analysis of this type revolves first around the issue of how life circumstances – and the processes of thinking about these experiences in particular contexts – can create openings for new life directions, identities and so on, beyond unemployment, underemployment or under-ground/illegal employment. As in the APCOL project as a whole, we understand this as a type of lifelong learning process. But, it is a process that is inseparable from environments where barriers and injustices of race and social class are common. (Carter, Salter, Sawchuk, interim APCOL Report, 2011)

The case study was one of eight undertaken as part of the Anti-Poverty Community Organizing and Learning Project (APCOL), a SSHRC-funded CURA initiative that also includes two major surveys on questions of social movement engagement and learning.

FINDINGS

Participants in the pre-apprenticeship construction trades program participated in what Lave referred to as a multiple, simultaneous learning process, one that included learning the math and science of the trade, learning the lexicon, handling tools and materials, negotiating relationships in the classroom and on the job site, learning respect for the craft, the trade, the materials, the tools, senior tradespeople, and figuring out how to make a living and understanding what that living/life might look like for them. The degree to which participants engaged in this multiple situated learning is connected to their *practice of becoming*.

By understanding the apprenticeship program, the 'construction trades', neighbourhood peer groups, formal schooling as both figured worlds and as activity systems, and by placing identity at the centre of analysis, we can better understand relationships between engagement, identity and learning, and discuss how identity is practiced in learning activity, by means of key artefacts. We can begin to respond to the questions raised at the beginning of this paper: *How do people practice becoming themselves – what tools do they use in constructing transformation? How is the process of 'becoming' synonymous with learning? What is the connection between desire/emotion, identity, engagement and agency? How is 'becoming' inherently a social practice with individual and collective outcomes?*

Again and again participants in our study spoke to the process of gaining respect, legitimacy, etc., insofar as they surpassed their own or others' expectations as they gained both the social and human capital for employment in the formal economy. They were transitioning to one kind of work (broadly characterized as traditionally masculine, hard-working, well-respected trades, etc.) and for many this played directly against the backdrop of the kind of work they wanted to leave behind (dealing drugs/ 'hustling' or working retail and service). The infusion of identity in this transition is palpable in the interviews – it is not simply about changing jobs or employment status, this is about practicing self, community, identity, agency. Now, we could understand being defined by one's work as repressive, but we can also find in it a kind of liberation, particularly where participants express that they are seeking new definition(s) and, for some, new communities. For many of the participants, apprenticing provides not only access to future income and a community of practice, but engagement in new practices of self-respect, masculinity, family life, self-esteem, competency, and, to some degree, agency.

OBJECT

The majority of participants in the study were collecting unemployment insurance or social assistance and a number of them self-reported working in the drug trade at the time they entered the pre-apprenticeship program. All were looking to find decent jobs[vii]

and all understood the pre-apprenticeship program as providing them with the requisite human capital to make the transition to paid work – in fact no doubt was expressed by any participant that enrolment in the program would lead to employment.

> #16. For my family for sure, because you know what I'm saying I will be in a good occupation working, you know making good money you know what I'm saying, I'm blessed, you know what I'm saying, I'm blessed you know I don't have to worry you know like they are good, I can save money for them. That way I can make money and save money, because now a days you make money, you spend money, so you can't even make money and save money, and if you are out there hustling or you are doing something on the side you have to watch out because you will get in trouble, then it's like 'oh you need money for the bail', you will need money for lawyer. Then it's like a whole different chapter you don't want to go down that. So like if you can make money, this kind of money with a career and then certificate like you are good. That's what every youth needs, you know what I'm saying. Just go to the training, you know what I'm saying.

We can characterize participation in the pre-apprenticeship program in use-value/exchange-value terms, and we can see its role in the social reproduction of the labour force in late capitalist economy characterized by increasing credentialism and a floundering industrial base. But that analysis should still leave room for the transformative impact of the program on participants as they see it. Case study participants are oriented to future participation in the formal economy, which is understood as a type of liberation, as a type of freedom and security.

Object-oriented activity goes beyond both transfer and application of knowledge, and occurs in and through context (as opposed to formal schooling where context is negated). Lave observes that apprenticeships often provide examples of "powerful knowing", distinguished from formal education, particularly insofar as people work at it differently (1996). An example of 'working at it differently' is described by one case

study participant who articulates easily this notion that 'powerful knowing' reaches beyond the application of knowledge:

> Participant in Group #1: Well for me particularly in this course here, well some of the guys had experience in construction before, but for me the education I got from the program was more to solidify things that you learn in the field and you work like trades men and you observe them in certain things ... work implementation - certain procedures - and you don't have any knowledge as to why they do these things. But coming here you learn the mathematics, you learn the science behind everything. You know, for instance, we learn the science behind aggregate which is concrete and stuff like that and those of us ... o.k. we were just being told 'o.k. mix this or mix that' without understanding as to fully why that was so. But coming here, gathering all this information now, we are all better, more wise in the sense that o.k., no one has to tell us what to do. I mean if someone tells us what to do we know for what reason they are telling us and not just doing as we are told you know, we know to what purpose for whatever project we are doing which for me is vital because you always want to be in the know, know what I mean? You don't want to work and to just be following orders, you want to be able to have a general idea of what you are being told, why you are being told and you know and for me coming here and getting this knowledge was very vital in that.

Powerful knowing is about deeper understanding and competency – in this case it is a direct form of agency as the apprentice's new skills and sense of competence makes him or her less reliant on their master[viii] /less subservient to her supervisor. This, as the participant tells us twice, is "vital" – a neat choice of words: necessary or essential to life. Note that he explains agency three ways: 1) the satisfaction of not having to be told what to do 2) the critical importance of understanding the rationale for action and 3) being able to act independent of 'following orders' – a certain ownership of activity. Of course, this is limited agency (orders will no doubt be given), but nonetheless, vital.

Recall that according to Roth, “this increase in control or agency comes from changes that we denote by the term ‘learning’” (2011, p. 48). This view is consistent with the respondent above who articulates agency vis-à-vis capacity to act without supervision, and with previous case study participants who cite their engagement in learning as reflective of their desire to maneuver their existing circumstances. In CHAT terms, object was expressed by study participants in terms ranging from respect to legitimacy to security, to providing for family, to proving oneself to oneself and others, to enjoying life through work, to being in control of one’s own labour.

IDENTITY

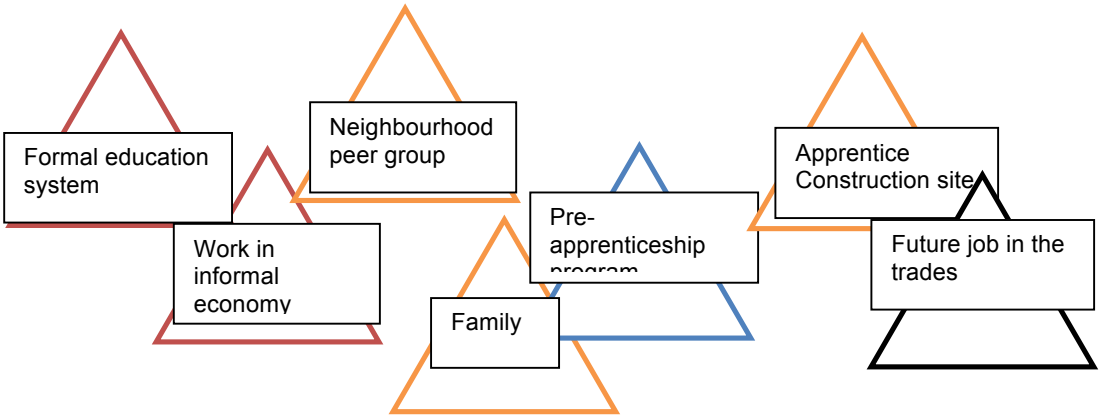
At the risk of romanticizing, there were strong currents of hope, expectation, and pride expressed during the case study interviews. Participants described an active, exhilarating process of changing selves in changing practices. It’s encouraging and exciting for all of us to see (participants, administrators, researchers) that in the absence of many material and educational barriers, and with the right conditions and tools in hand, participants were duly able to perform "a head taller than [themselves]" (Vygotsky, 1978, p. 102).

> “to go beyond themselves to create new experiences, skills, intellectual capacities, relationships, interests, emotions, hopes, goals and forms of community... experience themselves as successful and as producers of things – and have their families and broader community share these experiences. The activity of creating their own lives their own stages and their own successes is of tremendous support to young people and to their communities.” (Holland et al., 1998, p. 7)

Participants in the study were becoming apprentices, members of a classroom community of practice, and en route to becoming construction trades workers and members of the construction trades community of practice. Likewise, they were coming from communities of practice (for some, these were situated in the informal community

or the drug trade) and belong to neighbourhood and family peer networks. They had left behind them the activity system of the formal education classroom (most had not completed high school, others had high school and a few had some college experience), but all of these activity systems - past, present, and future - are present and in use as tools in identity construction. Considering multiple activity systems helps us better understand how community mediates engagement, identity/object between and across activity systems.

We can crudely map out the following overlapping and intersecting activity systems in our case study, noting that in some instances they are not time-congruent, but are nevertheless at play[ix].



"Self in practice" (Holland et al.) can be understood through these overlapping activity systems, and is particularly evident in participants' use of *narratives as bootstrapping* (related primarily to past activity systems outlined here in red) as exercised within the pre-apprenticeship program but largely with peer neighbourhood network. This same neighbourhood network is an active system in the engagement of participants in the pre-apprenticeship program, as for most this is the primary community against which

and through which participants see themselves (past, current, future) and are seen. Where situated learning theorists would likely view identity construction as co-developed with classroom peer network, and with future community of practice, what we see here is the critical role that the background community (neighbourhood peers) is playing an active mediating role in object and engagement. Together, neighbourhood peers and classroom peers reinforce the desirability of the object, as each collectively plays a role in constructing the object: the (desired) figured world and activity system of employment in the trades. Leveraging this reinforcement and desire are two key tools: narratives and testimony.

1. NARRATIVES

What role do narratives, narrativizing, and testimony play in the activity of becoming an apprentice? How is this facilitated by the community? How do counter-narratives, clichés and truisms both reproduce social systems and act as liberatory tools?

By narratives, I am referring to the active retelling of stories by participants about education, about welfare, or the drug trade, or retail jobs. By testimony I am referring to the act of telling, bringing self into being through discourse. Neither narrativizing nor testimony are, of course, part of the official task of becoming an apprentice – but serve as important tools of engagement in official tasks and in the larger project of becoming.

Holland et al. studied the 'symbolic bootstrapping' of narrativizing in the figured world of AA, where the narrative has a nearly singular form (and new inductees are gently corrected as they practice their stories). In our case study we look at how participants reproduce and make use of two prominent narratives – the first about formal education, the second about the informal economy/drug trade.

Many participants recollected narratives about education that they had been fed as children/teens; narratives that had not been useful artefacts in development (where they could not make the connection between activity and object) – but narratives that they

were now revisiting and using, and also recycling (albeit modified with caveats about contextualised, purposeful learning). Participants reflected on being told from a young age that education was a useful/necessary tool – the telling didn't make it relevant, until the object/goal took shape.

> #15. Because when I was young there was a song saying "little Black boy, go to school and learn. Little Black boy show some concern". And you know when you are young you hear those songs and you don't really pay attention to it, but when I start to get older and I was home, and I ask my father for $20.00, and in one minute he cut me off. … And when he cut me off I said I can't live like this man, I need some money… And I wasn't going to school at that time, I wasn't doing nothing, but no one wants to work hard, so once you get an education or skill, it tend to lessen that hard work so that's why...

The narrative of 'education as key to success' is not a key artefact in learning activity if curriculum remains disconnected from (or out of reach of) one's object or goals. In the following interview the subject explains that the disconnect between theoretical math learning and his goal in becoming an engineer was simply too great for success. He contrasts this with the pre-apprenticeship program, in which he was able to successfully participate.

> Group #1: Yeah ---------- but I skipped school like crazy, two months at a time, you know so I know education was important but at the same time I guess the way the program has changed my views has changed about education is actually get into something that I enjoy. You know as opposed to o.k. you know I want to become an engineer, but I failed math ---------- in the classroom do a whole bunch of theory and yada, yada yah so you know that program has kinda changed my view in terms of actually gotten myself involved in something you know I enjoy doing.

In the first instance described by the speaker, learning was not within his zone of proximal development; in the second he is actually able to enjoy the process because the theory connects with practice and object.

When asked about their views on education, and how they have changed through participation in the program, the two common frames were: 1) education as 'bettering oneself' *("reaching your highest point in life")*; and 2) education as necessary to economic success, a tool for "moving on with their past", for "getting ahead in today's society", etc. Most respondents spoke in terms of either their own personal need for/purpose of education or a more generalized (i.e. non-personalized) need for/purpose of education, whereas one participant spoke clearly in terms of education as requisite response to employer's need.

'Education' then, is seen as a tool (described as such), in use as a tool, and in use as a narrative for self (motivation, self-understanding, symbolic capital), and in use as a tool with others (social capital, human capital, and exchange value). Education is understood as desirable, a key artefact in meeting object: getting something they want, making up for deficit, getting something other people want, etc.

The following excerpts from interviews show a mix of analysis and well-worn cliché's, but the question for our purposes is what role these narratives play as key artefacts in figured worlds, and particularly how they may or may not be used as tools in the transition between figured worlds.

> #15. Education and training is important because they demand it. And if you don't have it you can't come out of poverty, you can't see your way, you can't build a family, you can't move, you can't do what you want to do. So that's why education is important.

> #8. I believe that with education you can do anything you want to do, you can become anyone you want to be, without education you can't really

> grow, you can't really get out there, and you can't do. . You can't reach your highest point in life, without education.

Both of these respondents speak to a connection between agency and education, but seen through different frames – one the employer, one the worker/citizen. There is some subtle distinction here between a narrative of 'what *you* need' and one of 'what *they* demand'. There is also a clear articulation of education as meaningful beyond exchange value, a narrative useful to identity construction, and an acknowledgement of learning as an active practice of becoming (not the gaining of knowledge).

> Group #1 [Education] motivate me to make my brain stronger and you know gain more knowledge, keep at it, keep at it, yeah education is a way of me exercising my brain. Your brain is a lot of muscles and you have to exercise it.

For some participants narratives were powerful enough to function as artefacts of recruitment into the program, not just engagement within the program:

> Group #2: So there you go definitely, you cannot get anywhere without an education, or at least a basic knowledge of the common knowledge. For me it has brought me right up out of the sewer and put my feet on the ground and definitely there is no better way to get to where you are going than having a good solid education behind you.

> Group #1: Honestly speaking the only reason I buy education is because education open doors. Because without the education doors cannot be opened. So that any field in any way education is the way, so that's why I say education. Not because of Trades, not because of this, not because of that, but education because without education, as Mike say, you are stuck - and none of us want to be stuck so that's how I see it as.

> #6. You know education is key to somebody moving on with their past you know, via formal education within the school system or you are just sitting down reading a book on your own or getting that knowledge within your brain in regarding that subject because there are so much things that people don't know about construction and ahh I guess construction because we are in the construction craft worker program ahh that people feel they know right?
>
> #7. Well to be in the school mode is something that you always have to have, to get ahead in today's society, you have got to keep yourself motivated and always willing to learn, you have to accept new challenges in learning and things change even standards in education the way how people are taught, and you have to be ready to embrace all of that
>
> #13. You see if you are not educated that would limit your opportunities to get employment and you know I just the more education you have, the more avenues that are open to you. You know, and you know the more training you have the more jobs that you can apply for.

The question isn't so much whether people believe or deeply know these 'facts' about the role of education, but whether the constructed narrative serves a function – whether it mediates engagement. Participants were clear during interviews that these narratives did not positively mediate activity in the past, but they are called up in the present as mediators not only of engagement in present activity but to explain self-transition (that is, participants enter the figured world of those who understand the so-called 'value of education').

Likewise, we can see how some participants use their narratives about street life to mediate their own activity and meet/shape their goals of staying in program, dealing with daily barriers to participation). Here's one sample narrative against which the participant identifies.

> #1 It breaks your self-esteem, and a situation dealing with the streets ahh, people have very low drive to build an actual career; they think hustling is a way of life, which it is not. All it does is yeah, flash, and money and what not, but it is not a way of life, it's just drama and trouble. There is no credentials or qualifications to say that you made this much money or whatever, it's just word or mouth can get you in trouble in the end sometimes. So you are better off doing a career. People, streets they have no drive, that's why they are there, that's why some people end up staying there the whole life is because they have no motivation, they don't see themselves amounting to anything.

Holland et al. note the function of diagnosis in figured worlds – in this sense the previous speaker may be distinguishing herself from others as a way of understanding herself. Again, whether 'lack of drive' aptly explains socio-material circumstances of workers in the informal or illegal economy (!) isn't the issue – the issue is whether this 'diagnosis' is useful in mediating engagement and identity-construction.

In both instances the narrative is an important mediator and lever of engagement in learning process and particularly in the activity system of the classroom itself; narratives are co-produced with past (via family and formal school networks), against past (bootstrapping), but along with contemporaries (classroom peers) who mutually constitute each other, in part through use of these narrative tools. Participants spoke in terms of past and the future, before and after the program as if the program provides a clear break – the time allotted to the program is itself used as a transition tool, in the process where "people are becoming kinds of persons" (Lave, 2009, 157).

> Group #1: To me in a sense I look back in the past, I always thinking about the past because the past there is flashback in my mind but I thank for this program because I see a future. So to me and this little time period of my time, I see some little collaterals coming in to put things in place to

move on to the next step. So this program comes like it open a door for me to go to the next step, so that's what I see.

In discussing their futures / 'careers' / 'paths', participants tended to speak in correlation /opposition to past identity/way of life, hustling, service jobs – in effect, future and past work operate as co-constructs. The idea of 'wasting time' was raised in several interviews, important vis-à-vis object, where time reflects or marks object transition.

#12.3 Well O.K. I will say this much ahh for the longest time all the way through my teens, all the way through my 20s I was always involved in "shady" business I guess and I never actually felt you know unless you are doing something really good in the sense like oh you own your own business and ---------- I never thought that something like ---------- would be cause to a certain degree this is a lot of fun. There are certain days when I'm like "wow I'm really glad to be here" and it just feels good and I can actually see the benefits of certain people who has been through this already. It just got me thing like wow how many years I have wasted getting quick money like, and the back lashes to that was the incarceration, and you know for some reason I got so used to that I never thought there was a way out, one way or the other and all of a sudden this comes along like you know 5 October I'm like wow how much years have I wasted so it's a good thing I'm doing this from now you know I never thought it would be like this. Like I never I came in here to this thinking . . . not knowing what to expect really I just kind of just jumped on it because I needed something, some kind of change in my life and this actually has changed my life. I can't see me going back to certain elements out there, you know even though they are there like in my face every day, it doesn't matter about the money, that kind of money, there is nothing like working for that money, there is nothing like having a job, knowing you went to school for that job. And knowing that those people because I mean everybody will look at you and say you know cause of your past, so I have

> got to get back into that, you know they assume that ‘cause I have been there you know. I have to say I been there because nothing I will not do it again. I’m not going to go back to that ----------

The above participant notes that he came in to the program ‘not knowing what to expect’, with no clear object; only his ‘negative valuation’ of the past which creates an opening for the formation of object, which occurs through activity (which in turn engages his activity, which in turn supports/mediates object, and so on). Roth spoke in terms of positive valuation as critical to object formation – missing, perhaps, the role of negative valuation – not in forming object, but in cracking things open. Engestrom’s expansive learning relies more on this negative valuation, though the affective aspect inherent especially to situations of conflict and contradiction isn’t given much play (1999; 2001). In our case study, participants’ negative valuation of the past is also created through engagement in object-oriented activity, as participants come to reflect in the present on their past, reflection that then becomes tool of engagement.

> #12.2 , I feel like I was wasting my time after high school. You know in all the things that I have done and I try to do all my life now. For me coming back to school I realize that I have been wasting my time you understand, like all the wrong people, like all the crowds that I have been with everything you know it’s this like you know I wish I wasn’t so old, I wish I wasn’t so you know what I mean? I realize being here with you and Eric and some people in my class I realized the time for me to come back to school right? I just realized it’s just I was wasting my time after high school, if I was thinking about College and career I would have been better off in my life. You know I wouldn’t be even right here feeling so sorry for myself. You know?

2. TESTIMONY

The activity of telling (re)produces these narratives, and shapes individual and collective identity as participants 'practice talk' themselves with new and existing communities.

> Speech is equally a means of acting in the world...Once we see discourse production as a social and cultural practice, and not as a second-order representation of practice, it becomes clear that it must be configured along with other kinds of work in the overall matrix of performance. It also becomes important to investigate retellings and discussions that take place between and around performance events, and between learners and their respective communities....such an investigation of language would contribute to a more deeply historicized account of situated learning. (Hanks in Lave & Wenger, 1991)

While some participants in our study spoke of leaving their neighbourhoods, most planned to stay. Their relationships with their immediate communities are changing, as people develop new meanings for each other – we see this constructed in testimony.

When asked about making a contribution to community, asked specifically about activism following experience in pre-apprenticeship program, the overwhelming majority of participants indicated that they are sharing their story in their community – that is, their transformative narrative – crudely: 'I was this, now I am that, and you can be too' or perhaps 'I did that, I now can do this, and you can do it to or as one participant repeats throughout his interview "I say, give it a try". While this doesn't look like anti-poverty activism as traditionally defined, it is worth thinking through. First, while 'testimony' isn't a part of social movement repertoire, it is a strong (if not the *key*) tool of religious movements and groups like AA. It serves several functions in these figured worlds – as tool shaping identity, as control, as liberation, and as part of the constant becoming (maintenance plus). Second, social movement research does show that social networks are a critical lever in recruitment. Third, identity figures prominently and powerfully in the figured worlds of social movements. It would be a stretch to say that this pre-apprenticeship program is an anti-poverty movement, but as an anti-poverty

initiative, it is clear that the narrative / testimony is an important tool, with potential beyond participants in the program.

> #9 I think, by me relaying my success and the people seeing the examples of my success, example me going to work regularly, me having a meaningful job, me carrying on with my life in a way that they would want to would in turn make them realize that “hey coming to a pre-apprenticeship program is one avenue that we might be able to look into because we are seeing the rewards and the successes of it.
>
> #17. How, I come from the streets basically, and my friends that are there now have watched me grow and change in the last eight months … And they are already starting to get into programs and things to get themselves under way and. Excuse me … That’s what I mean about emotional
>
> #17. Just by showing my own self as an example, you know remind them where I was and where I’m at, and I can show them, I can’t just tell them, now I have proof on paper “hey man I went and got this it wasn’t easy, but if I can do it anybody can do it”
>
> #16. If I could walk with all my documents and say “Yaw see it ya”, me documents, I’m good you know I’m working you know I go to school and this is legit, you know what I’m saying? … and a picture at my church you know what I’m saying? I’m saying I’m not up there, but I’m up there so like me finish now you know that I can tell the guy like a teenager I can say “You go to school and finish school otherwise it will be hard and then you are good, you know what I’m saying? Do it before you are 30 that will inspire them for real.

Participants understand that their engagement in the apprenticeship program builds their human capital and social capital – entry into the figured worlds of the trades and college carries symbolic capital that holds out promise not only of future material rewards and certain stability, but also offers recognition, legitimation and validation. Of course at the same time, programs like these reproduce the labouring class, the American dream, and the racialized economy – which brings us back to Holland's point about how liberation from "the entrapments of our cultural world" comes about through tools shaped in those worlds for their perpetuation?" (1998, p.64). However narrow the scope, we still need to better understand the transformative potential of subjective agency and identity construction.

As indicated in the previous section, participants indicated that narratives regarding the importance of education (by others, e.g., parents, teachers) had not been useful in engaging them in formal education (in the absence of goal/object narratives were meaningless), and yet they were in use now. And, almost to a person, participants articulate a keen interest in passing these narratives on to other younger people, actively reproducing a narrative that didn't work for them in the abstract, *except they want to offer themselves as proof positive of the narrative, and the pre-apprenticeship program as a conditional model of the strength of the narrative*. By putting themselves forward as example, they believe the (now altered) narrative has meaning and will inspire goals/object in others (which in general they report as lacking for young people, as it was for them). Many go to great lengths to say 'if I can do it, anyone can do it' – this is a structural, not an individual narrative (though based in individual) to success/achievement/ change/becoming. It is politicized, in the particular sense that it is a commentary against a model of decontextualized education, and an endorsement of strong, explicitly situated, social and structurally supported programs (free and accessible):

> #12.2 Yeah, I feel like this is giving back, giving back what we deserve you know because we deserve, I feel everybody deserve an equal share of education, you know so I feel like we are getting back now. I'm getting

> back or my family tree is getting back. Or people that I know from my community I'm getting back for them right now you know.

The pre-apprenticeship program provided participants with safety boots, tools and tool belt – meeting material needs for participation within the program and, as importantly, overcoming barriers to finding a job (where owning one's own equipment is pre-requisite to hiring). But beyond the material use, these artefacts serve as important social capital and contribute to the broader narrativizing (self-narrativizing and community testimony).

> Social constructs are "neither the 'clothes' of a universally identical self nor the (static) elements of cultural molds into which the self is cast. Rather, differentiated by relations of power and the associated institutional infrastructure, they are conceived as living tools of the self – as artifacts or media that figure the self constitutively, in open-ended ways. Second and correlatively, the self is treated as always embedded in (social) practice, and as itself a kind of practice. Third, 'sites of the self', the loci of self-production, or self-processes, are recognized as plural." (Holland et al., 28)

The speaker below clearly sees the importance of self-presentation as tool, to the practice of identity:

> #12.2 So when they see me they would probably just by me being around here made me smarten up, made me pull my pants in a little bit, you know I'm wearing, I used to wear 36, 34—36 you know so now I'm wearing 32 pants you know so like I know they start to look at me different now, you know I never used to get effect like that when I first started school I used to get you know people are looking at me and looking at me for ---------- what are they looking at me for I'm a man, you know so I don't think they picture me anymore, you know?

> #12.2 I know that I'm going to be someone because ever since I have been shaking everybody's hand that knows me they are saying "how comes your hand is so tough boy? You know, they are always asking me how comes your hand is so tough. And I already know I don't really depend on people you know.

This same participant goes on to talk about running into someone from the neighbourhood at school, noting the change in his appearance (which may have influenced his own?) but notes that he intends to use self-presentation more deliberately as part of his practice of 'coming out'.

> #12.2 I was talking to one of the brothers that actually go to school. I didn't know he go to school, I just saw he started to change, with his pants, the way he was dressing, I realize the change, but I didn't know he was coming to school so I see him in school he is like I go "you go here"? He is like "Yeah you go here"? I'm like yeah like this is your secret life you know. And it's like cause he never told nobody. I guess he studies I guess he just focus, but me I'm like 'I'm coming out', I'm walking and I'm telling everybody, they are like "where are you going"? I'm going to school, and I'm kinda like, when they ask what school?, I'm like, [name of college], you know.

The language of 'coming out' is a nice fit, insofar as it calls into play the figured world(s) of queer practice and the perpetual processes of identity presentation/construction. And, just as pride is key to identity construction in LGBT communities, pride is both an outcome and a lever of engagement for our case study participants.

In addition to the 'uniform tools' of the trade, comportment becomes an important artefact of self-in-practice. Being seen differently, seeing oneself differently were key themes in the interviews: *seeing oneself* as a learner ("*I'm exercising my brain, see*", or discovering one's aptitude for math), seeing oneself as a man (provider)[x]. Participants

reported on *wanting to be seen by others* (responses like *'they won't recognize me' 'when I come back to the neighbourhood', 'when they see my diplomas'*, etc.) and also reported on the *experience of having being seen* differently as reflected in comments by friends, family, people in the neighbourhood 'on the corner', but also by own children, parents, grandchildren.

> #12.2 like if I go to my community centre now and I tell you they see a new me. Because you know my old gym teacher from middle school saw me and he was like he didn't even know I'm 25, I tell him I'm 25 he can't believe it, he thought I was only like 20, you know, in a way I'm so young I'm in shape you know but like my teacher he didn't know I was going to College, I told him I was going to College he was like so happy, like keep up the good job man.

For many case study participants, neighbourhood peers play an important mediating role in their learning/becoming: in part as mirror / witness of self in practice; in part as counter-narrative (symbolic bootstrapping and co-construction); and in large part as audience for narrativizing (artefact of self-control/liberation).

> #12.2 Yeah, it got me into a different state of mind right now. We built a shed, we built a concrete formation, we did . . . I was working welding machine, I was doing all this I went back to my house or my friend's house and tell them I was just working with concrete today, I mixed concrete, they are like "wow" I was working with welding, they are like "for real"? and then I tell them I was working reading blue print they can't believe me, even me I can't believe this sometimes, I can't believe this, actually get done you know? It's wonderful, I tell anybody give it a try.

> Group #2 Every day when I was in the program when I go home everybody on the block would be like "what did you learn? How can I get in? How can I do this, this is what we are doing" And when I made my

> things and bring them home “boy you can really make that ---------- the box and the candle holder with the incense holes you know even that {what you call it} horse saw? And I brought that on the bus carrying it home ----------Everybody was saying “you made it, you made it” if I could have brought my concrete things up. Everybody showed an interest, even when they were doing ---------- at George Brown right here, I saw one of my friend who was working on the top floor one of the dread, he was “get me in the program” he started calling me “when is it starting get me in?” I’m like I don’t know if it is going to be next year but you know I will let you know. Everybody in my community is like “man you are lucky, you are lucky so it’s good.”

The following participant expresses a desire to be seen anew by his peer network, but at the same time seeks temporary distance from that community to effect changes /bring self into being.

> #12.2 so I feel like just one [more year] to stay, and what I’m learning right now, I could stay away from that neighbourhood for at least a year, two years, and just go back, and even six months, and then when I go back there, they will see you . . . what I have been doing… If I come from work they are going to see that, you know whatever it is, they are going to see the effect that this George Brown want to give a career a try. The effect that it has on me in two years or a year from now. I know cause what I learned and what I’m planning is success right so you know.

For most participants the active and ongoing reinforcement/acknowledgment/ validation of transforming identity is critical to their engagement – mediating their activity to the point that it served as a key motivator/tool for continuing in the program. In that sense, their ‘testimony’ was refracted back at them through community reinforcement.

> #12.3 Well what actually kept me going through the program because there is a lot of time I didn't want to continue, I just wanted to get a job, I didn't mind what job, but it was the people in the class actually the teachers you know and the situation at home, you know people who know me as know that I'm coming here, they are actually really proud and they are actually . . . . . ---------- makes you feel really good … {INTERV: People are supporting you?} Definitely, like I know that I'm doing something right when everybody is just like "wow", "wow"… It feels good.

The relationship between participants and their 'home' communities is not simply a take: it is two-way learning across activity systems that is significant to both the individual and his home community – the individual is reinforced, the community may come to see potential of (and may perhaps even mobilize around) meaningful educational programs that acknowledge socioeconomic, race and class barriers. Of course these narratives / testimony may equally and simultaneously both challenge and reproduce classed and racialized figured worlds of school and formal employment, such as the trades.

In addition to peer networks, participants identified a variety of roles their *families* play in mediating activity: as motivator (through activity participants can 'prove' their families wrong or right, make them proud, provide for them, become mentors) and as providing basic material support (many participants cite relying on family for housing and bus money) that enabled participants to take part in pre-apprenticeship program. In our study there was little evidence that families provided 'funds of knowledge' (Moll et al., 1992) of the trades – in fact many participants expressed their keenness in becoming first-generation trades people.

> #12.2 I have people that care for me like my mom and dad and I have my son I could see so that's all you know and when I see my son I could give to him. Where I learned here and I could show him, like talk to him because my son listens. He is actually 4 but he listens you know.

#12.2 Yeah, so we have to know you know, because we have a lot of people that's looking up to us I didn't think we had nobody looking up to us at everything we were doing. First of all we had our moms looking down at us saying you know I wonder if you are going to make me proud. And we have our kids saying you know now, I have a son, he is like daddy he doesn't know ---------- that's my daddy so regardless, so I gotta do it for the family you know, because right now I just feel like we need more of these programs in every community where like its helping.

Group #2 I have had a . . . I think the biggest impact I've had on anybody since the transition that I have been going through is my wife's grandson. Ahh years back when I was going there, doing nothing, he would come every other day, with his mother and he would come and he would always see me on the couch laying down ---------- two days before that, and finally one day the little bugger said to me "how come you are not laying down" ---------- but now I'm in school and everything he is happy for me, he is proud of me in fact his mother has even gone back to school. Everything is working out for her.

In an article entitled: *The Gift of Confidence: A Vygtoskian View of Emotion*, Holbrook Mahn and Vera John-Steiner build up the affective dimension of the concept of zones of proximal development to "amplify its dynamic character" (p.6). They understand confidence as interactive aspect of creative collaboration and complementarity (between peers), and push Vygotsky's notion of perezhivanie ("the ways in which participants perceive, experience, and process the emotional aspects of social interaction"). Their interest is in developing a pedagogy of care that more broadly considers affect in learning and the role of teacher-student and student-student relationships. Teacher awareness of perezhivanie is linked to teacher capacity to engage students in meaningful activity. Their study focuses on dialogic journals as providing key tools for students to "give salience to experiences that shape their identity

and reveal ways that their educational experiences are shaped by affect in relation to ethnicity, culture, gender, and class status" (p.16). Mahn and John-Steiner's work is useful to us here in two particular ways: first as it highlights the affective dimension of zone of proximal development – in our case the importance of validation, legitimation, pride, and confidence afforded by peer networks (family, neighbourhood, classroom); and secondly as we can draw important parallels between the use of dialogic journals and the use of testimony as artefacts of identity construction.

PEER NETWORKS

Learning is a social activity. While teachers and administrators and apprentice masters clearly played important roles in this program, the focus in this paper is limited to peer networks: neighbourhood, classroom, and family.

The role of *student peer networks* in the case study cannot be underestimated. While it is unlikely that participants entered the pre-apprenticeship program with a primary focus on making connections with peers, the role of peer networks in student completion of the program, in co-construction of identity, and in learning / development (i.e., zone of proximal development), cannot be underestimated. Participants report the importance of the new peer network that has emerged in terms of:

a) providing material support for one another (*"you know so for the future I guess, and we keeping in contact with each other, in case I get fired from the other job")*

b) teamwork/co-learning (figuring stuff out in groups) plus zpd *("Even in school I had some of the guys in the class where they would show me like they would show me how to handle myself in the work place, like there would be days where ahh there would be days when some of the guys tried to give me a voice on, on how to do this and how to do that, especially when I was doing the Level I training, they would show me the proper way to do this and do that. There is also guys in class that*

would show me oh it's better to learn how to do something properly the first time so that way you won't make that mistake in the future. Yeah that's pretty much it."

c) support group *("Yeah whoever didn't show up one of us would call "how are you?"*; *"the networking was very important to because sometimes when you are at the job ---- like pressure and stuff you need somebody to boost you")*

Case study participants spoke repeatedly about the importance of peer networks to their learning.

> #12.3 Well you know well all is said and done classes is good for us, I find everybody have something to contribute in the sense of giving you advice. Everybody kinda support each other you know it wasn't even mentioned to do that. Everybody is kind of naturally doing that ---------- say good morning type of thing you know and those are the things that are actually quite important so teachers, students everybody they actually has helped me in the strangest ways, I can't even describe it, it's just a whole…

Peer support was noted as important in negotiating access to the community of practice: the following speaker talks about how his friend models navigating co-workers – providing access beyond what the school afforded.

> Group #1: My friend –Courtney here he like mentored me some of the time we worked at the site at the site he will always like show me he will tell me the reason and what people are doing and some of the things we have to deal with. And he would show me how to deal with them---------- and cause some of the workers; you know how some of these men are so nice they try to take advantage of you and what not? So Courtney show me how you have to be you know.

Respondents articulate the ways in which peers not only support each other, but in a real way co-construct one another, mutually constituting object/motive, and identity.

> Group #1: I made contact when I worked on site with Mike...yahh I haven't spoken to him most of the time, most of the time I hear about Sean and everybody else doing people so you know what oh yes some of the people doing something as well so I guess it kinda gives you, you know that everybody is still working towards the same goals, and also at the same time it pushes you in the right direction as opposed to giving up. Especially if you have somebody on the site working with you. You can say o.k. this guy was in class with me you are not getting here before me it's an obligation but at the same time it's boosting you right? So obviously who is going to last longer?

Participants in the case study were part of a cohort of pre-apprentices, who formed a new community of men (and one woman). The cohort model is likely critical to the success of the program and to the engagement of many of the participants – a community of practice within the classroom created a bridge between participants' home communities / peer neighbourhood networks and the community of practice of the construction trades – an *identity* zone of proximal development, whereby participants co-constructed new ways to be - especially salient to men looking to find new ways to be men. This creation of this middle space (community) should not be underestimated, first because it appears to have met real needs for those breaking or distancing from a social network tied to work in the drug trade. Secondly, the degree to which participants 'fit in' with this peer group is likely greater than the degree to which they will eventually 'fit in' with the broader figured world of the trades, where racialization and language barriers may limit their access (especially where the figured world of construction continues to be dominated by white Europeans / Italian and Portuguese in the city). The peer network formed through the cohort provides a critical space for becoming and for consolidating identity – which will be important as participants eventually seek work as apprentices on job sites.

In her work on social movement learning discussed earlier, Kilgore stressed the role of 'collective vision' and solidarity. While the apprenticeship program we studied reflected an institutional social initiative (which is directed at a particular community of unemployed and marginalized young people), participants themselves appear to share a fairly clear (mutually constituted) *collective* object. There is a strong class, race, gender, generally marginalized solidarity underlying their activity – their commitment to 'testify' about their experiences makes it clear that they feel an obligation to widen this project beyond themselves - what Bobbitt Nolen et al. refer to as the moral dimension to their engagement .

What we found overall in our case study may not have been a perfect storm, but at the very least was a constellation of reinforcing activity systems. This contrasts sharply with accounts of women apprentices in the trades; the construction trades remain one of the most gendered occupational categories in Canada today (96% of jobs are held by men). 96.3% of those currently enrolled in trades are men, and 98.2% of apprenticeship graduates are men (2008, Registered Apprenticeship Survey, Statistics Canada). We can assume that gender is not only reproduced, but produced in new forms in apprenticeship programs today (Nielsen, 2008). It's not much of a stretch to say that legitimate peripheral participation (or engagement in the activity of becoming part of a community of practice) is heavily contingent on the (highly gendered[xi]) convergence of the three figured worlds most at play here (the drug trade, the apprenticeship program, and the construction trades).

> By investigating how students manage their multi-membership in multiple figured worlds and communities of practice, we may begin to understand the reasons why they identify (Cobb et al, 2009) with the normative identities of particular classrooms and see skills and conceptual understanding as important goals" (Bobbitt Nolen, 2011, p.127)

COMPETENCY, CONFIDENCE AND ENGAGEMENT

While Lave and Wegner's learning trajectory of legitimate peripheral participation doesn't adequately take into account (by their own admission) power structures and difference, it does reflect the multiplicity and simultaneity of learning processes. In her study of apprentice tailors, Lave observes:

> they were learning many complex 'lessons' at once. To name a few: they were learning relations among the major social identities and divisions in Liberian society which they were in the business of dressing. They were learning to make a life, to make a living, to make clothes, to grow old enough, and mature enough to become master tailors, and to see the truth of the respect due to a master of their trade (1996, p.151).

Or, to paraphrase Lave[xii], instead of teaching math skills, math becomes part of the hard work of learners who are becoming apprentices, men[xiii], tradespeople with a pressing need /interest for math. When asked what was most valuable about the pre-apprenticeship program, several participants cited technical aspects of the program (e.g., reading blueprints, learning techniques of measuring).

> Group #2: I think of the work with concrete, like I never worked with concrete before, like I did like you know with my dad or something like that but not official on a school level, so concrete work.

We see through these responses that the activity of learning (classroom past, classroom present, job site) is conceptualized in different ways (i.e., not the same activity, as object changes). We see, for example, even mixing concrete isn't the same as ... mixing concrete: the previous speaker says he 'doesn't consider himself to have ever mixed concrete before – *in spite of the clear statement that he has mixed concrete before*, with his dad 'or something like that' [read: inconsequential]. To this participant they were mixing concrete is contextual and object-related - two very different activities – the one legitimate, elevated perhaps by the term 'concrete work'[xiv].

In their studies of classroom math, Bobbitt Nolen et al. note that "students were learning not only 'math', but also what 'learning math' and 'being a learner of math' meant" (2011, p.121) – the same is true here insofar as learners are discovering what it means to be a tradesperson who uses math (i.e. activity vis-à-vis identity). Nolen goes on to note that agency is tied to the degree to which students identify with the roles expected of them in figured worlds. So, the degree to which one practices oneself (through math or mixing concrete) becoming a tradesperson mediates one's agency (and engagement) – thus connecting desire, agency, competency and identity in learning.

Of course it's also a question of access. To return to Lave and Wegner (1991), the degree to which one is afforded even peripherality (never mind centrality) is sociohistorically contingent/produced (with real, material consequences). We can interrogate the question of access both at the material and institutional level, and at the level of figured worlds (e.g., how elastic is the conception of identity in the figured world?) (Neilsen, 2008; Hodges, 1998; Fuller, 2011).

Situated learning theorists contend that insofar as people engage in learning specific concepts, this is tied to identity - being a learner of concepts, or being a practitioner of concepts in use. For activity theorists, engagement arises from object/motive. In both instances, learning loops involve affect, and connect object/identity with agency: "expanded control comes with a positive valuation as much as the successful production of the anticipated outcome." (Roth, 2011, p. 57)

We have begun to talk about the importance of knowing the 'why' to the 'how' (for example, in our discussion about concrete), and the role this plays in constituting powerful knowing, particularly vis-à-vis agency. It may be useful to take another slice at this question, by understanding 'competency' as a key artefact of identity construction (i.e., not only as outcome or object). Competency is connected to confidence, pride, , and an affinity to contexts that support sense of (becoming) self. In our study acquiring competency was a highly regarded outcome of the program for many participants. Some participants expressed surprise at their newfound competency in math *("I was*

never very good in math; Jeff Mattis I took his course, I was good in math. . . Math was probably my worse subject . . . for some reason it became one of my better subjects").

Learning the lexicon of the community of practice is clearly a tool connecting identity, object, and agency – language makes engagement possible. Focus group participants re-count a group project superbly designed to integrate participants into the figured world of the trades: students were assigned the task of making a video about the construction terminology – their job was to *film (observe), interrogate, and use* the vocabulary of trades (in situ) – meta-level learning.

> (Group #1) It was a Trades Communications course so Jeff Pak taught it. We had to familiarize ourselves with the industry by making a video on the industry. So we did that to sort of . . . well a lot of the guys ... didn't have the experience in this field, some of us did, most of us didn't. So that's just a way to get the vocabulary going you know because in every industry we do have the vocabulary. So it was just a way to get used to the language.

That "we" have a vocabulary demonstrates the participant's identification with the trades – s/he is in the know, speaks the language, is engaging in the practice of the community. This familiarity is critical to establishing legitimacy and moving from peripherality to centrality. The video project provides participants with the key artefact of language necessary to opening up the figured world of the trades. As curriculum it is brilliant: a group project that builds a classroom community of practice while engaging with a broader (experienced) community of practice (in effect two zones of proximal development), with learners learning to both internalize and externalize the language of the trade – through observation of language in use. All the while, they pick up a new tool for learning (videomaking).

> Leont'ev recommends creating an object/motive such that the possibilities arise for the (gnostic) goal to emerge in the pursuit of a concrete content.

> Because knowing enhances what the learner can do, s/he will be interested inherently in learning. (Roth, 2011, p. 55)

The ability to engage in community by mastering tools (in this case literally the tools of the trade as well as the tools of mathematics and the tool of language) changes participant identity and goals in learning. When people begin to see themselves as competent and capable, and understand themselves in their communities in new ways, this fosters engagement, and has the potential to be transformative at both individual and collective levels.

CONCLUSION

The aim of this paper was to sketch out a relationship between engagement, object, identity, emotion and learning in the context of a pre-apprenticeship program at an urban Ontario community college. The focus was on key tools of identity construction: peer networks, narrative and testimony, and competency. We have characterized the case study pre-apprenticeship program as a figured world and as an activity system that operates in relationship to multiple activity systems/figured worlds.

Using activity theory to better understand the practice and process of identity, allows us to zero in on key artefacts of identity construction and thus provide a more robust socio-historical materialist analysis of learning in everyday life. Doing so prompts us to stretch activity theory to more adequately deal with emotion as central to identity construction (as central to learning). Foregrounding 'identity' vis-à-vis our case study allows us to document "how students' sense of the connection between their selves and the social practice is related to their engagement and achievement in these practices" (Bobbitt Nolen, 2011, p.125). Holland et al.'s schema of figured worlds gives us tools and a language that complements both a situated learning approach and cultural historical activity theory, allowing us to better understand narrative and testimony as key tools of identity and agency in activity systems. On a colour wheel, activity theory would likely come out a rather cold blue – whereas a figured world approach might be on the

warmer side of the spectrum. And yet, the affect side of learning through figured worlds bears calling out specifically – this is a learning development theory based in emotion, based largely in changing relationships with others and self. It provides an operational explanation for how feelings mitigate learning as we butt up against or use artefacts, structures, and conventions in our process of seeking to become and/or belong.

The process of becoming was central to the experience of participants in our study. Key artefacts of identity construction in the practice of becoming included peer networks; skills/competency; and narrative/testimony. Additionally, the products of their labour (blueprints, woodwork, concrete forms); comportment (work boots, tool belt, fitted pants, rough hands); lexicon (learning the language of the trades); and community of practice were key to identity construction. In many respects the program itself was structured on a developmental (not acquisitional) model of learning, with many of the hallmarks of an LPP-inspired pedagogy. The conditions were ripe for participants in the pre-apprenticeship program to construct an identity zone of proximal development that supported them

> to do things in advance of ourselves, to go beyond ourselves, to be who and what we're not, to perform as other. The capacity to perform – to take 'who we are' and create something new (Holzman & Karliner, 2005, p. 7).

Much, much more has been written about the questions raised in this paper, and more connections between what has been written deserve to be made. Further study into the relationship between engagement and emotion could take up not only the role of positive valuation, but of negative and mixed valuation as mediating object formation; could consider the usefulness of understanding the role of past experiences not only as 'background' but as activity systems still, in some sense, at play - particularly as the past is called up to mediate identity construction and engagement. Questions pertaining to the mediating role of 'moral sense' in collective learning could come together better with collective transformative (non-canonical) CHAT analysis. Studies into affective development (and the affective-side of development) could better probe relationships

between multiple activity systems with respect to identity construction (reproduction, reinforcement, conflict, affordances and constraints, etc.). It may be useful to continue to study narrative and testimony as key artefacts of becoming that operate *between* activity systems/figured worlds. Better understanding the connections between identity, peer networks, and engagement would also help us better see how an individualized learning strategy (government anti-poverty initiative) can have some – limited but potentially significant – collective and community-based outcomes. Insofar as our case study highlights examples of affordances, it is hoped that by extension, it also highlights (and perhaps provides ways out of the many very real constraints on learning, development, and engagement.

POST-SCRIPT

We inhabit multiple figured worlds. As I was writing this paper, I was also engaged in the practice of mothering. True to form, I read to my son at night before bedtime – this week that included the story of Peter Rabbit, who, disgruntled with the ordinariness of his name, is made aware that he has the capacity to change it. Peter Rabbit thus pronounces himself Peter Cottontail, and sets about to become his new self, practicing in front of the mirror, trying on who he imagines Peter Cottontail to be. His forest friends think this is hilarious, and collectively undermine his attempts to become Peter Cottontail by sending out urgent messages for Peter Rabbit, who must pretend not to hear them, because, after all, he is no longer Peter Rabbit. Ultimately, Peter's sense of curiosity gets the better of him (and Reddy Fox nearly does too) and he gives up his quest to become Peter Cottontail. Constrained by his peer network, and facing the reality of forest survival, he succumbs to life as an 'ordinary ol' rabbit' – and goes back to practicing that. Had he the gift of confidence.

REFERENCES

Bobbitt Nolen, S., Ward, C. J., & Horn, I. S. (2011). Motivation, engagement, and identity: Opening a conversation. In D. M. McInerney, R. A. Walker & G. A. D. Liem (Eds.), *Sociocultural theories of learning and motivation: Looking back, looking forward* (pp. 109-136). North Carolina: Information Age Publishing.

Boler, M. (1999). *Feeling power: Emotions and education*. New York: Routledge.

Bonk, C. J., & Kim, K. A. (1998). Extending sociocultural theory to adult learning. In M. C. Smith, & T. Pourchot (Eds.), *Adult learning and development: Perspectives from educational psychology* (). New York: Routledge.

Bruner, J. (2009). Culture, mind and education. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 159-168). New York: Routledge.

Burgess, T. (1991, first published 1914). *The Adventures of Peter Cottontail*. London: Dover.

CRADLE - Center for Research on Activity, Development, and Learning - University of Helsinki - faculty of behavioural sciences Retrieved 11/2/2010, 2010, from http://www.helsinki.fi/cradle/activitysystem.htm

Elkjaer, B. (2009). Pragmatism: A learning theory for the future. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 74-89). New York: Routledge.

Engeström, Y. (1999). Activity theory and individual and social transformation. In Y. Engeström, R. Miettinen & R. Punamaki (Eds.), *Perspectives on activity theory* (1st ed., pp. 19-38). New York, NY: Cambridge University Press.

Engeström, Y. (2000). Activity theory as a framework for analyzing and redesigning work. *Ergonomics, 43*(7), 960-974.

Engeström, Y., & Kerosuo, H. (2007). From workplace learning to inter-organizational learning and back: The contribution of activity theory. *Journal of Workplace Learning, 19*(6), 336-342.

Engestrom, Y. (2001). Expansive learning at work: Towards an activity theoretical reconceptualization. *Journal of Education and Work, 14*(1), 133-156. doi:10.1080/13639080020028747

Fenwick, T., Edwards, R., & Sawchuck, P. (2011). Contradiction and expansion: Understanding cultural historical activity theory. In *Emerging approaches to educational research: Tracing the socio-material* (). London: Routledge.

Fleer, M. (2011). Motive as a central concept for learning. In D. M. McInerney, R. A. Walker & G. A. D. Liem (Eds.), *Sociocultural theories of learning and motivation: Looking back, looking forward* (pp. 65-86). North Carolina: Information Age Publishing.

Foley, G. (2001). Radical adult education and learning. *International Journal of Lifelong Education, 20*(1/2), 71-88. doi:10.1080/02601370010008264

Freire, P. (1998). *Pedagogy of freedom: Ethics, democracy, and civic courage*. Maryland: Rowman and Littlefield.

Fuller, A. (2007). Critiquing theories of learning and communities of practice. In J. Hughes, N. Jewson & L. Unwin (Eds.), *Communities of practice: Critical perspectives* (pp. 17-29). New York: Routledge.

Garrison, J. (1997). *Dewey and Eros: Wisdom and desire in the art of teaching*. New York: Teachers College Press.

Greeno, J. G. (1998). The situativity of knowing, learning, and research. *American Psychologist, 53*(1), 5-26. Retrieved from http://resolver.scholarsportal.info.myaccess.library.utoronto.ca/resolve/0003066x/v53i0001/5_tsoklar

Hickey, D. T. (2011). Participation by design: Improving individual motivation by looking beyond it. In D. M. McInerney, R. A. Walker & G. A. D. Liem (Eds.), *Sociocultural theories of learning and motivation: Looking back, looking forward* (pp. 137-162). North Carolina: Information Age Publishing.

Hodges, D. C. (1998). Participation as dis-identification With/in a community of practice. *Mind, Culture, and Activity, 5*(4), 272-290.

Holland, D., Skinner, D., Lachicotte, W. J., & Cain, C. (1998). In Holland D. C. (Ed.), *Identity and agency in cultural worlds*. Cambridge, Mass.: Harvard University Press.

Holzman, L., & Karliner, S. (2005). *Developing a psychology that builds community and respects diversity: A paper presentation at symposium on cultural diversity in psychology: Improving services by addressing public policy*. American Psychological Association Convention:

Hughes, J. (2007). Lost in translation: Communities of practice - the journey from academic model to practitioner tool. In J. Hughes, N. Jewson & L. Unwin (Eds.), *Communities of practice: Critical perspectives* (pp. 30-40). New York: Routledge.

Hughes, J., Jewson, N., & Unwin, L. (2007). Communities of practice: A contested concept in flux. In J. Hughes, N. Jewson & L. Unwin (Eds.), *Communities of practice: Critical perspectives* (pp. 1-16). New York: Routledge.

Illeris, K. (2009). A comprehensive understanding of human learning. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 7-20). New York: Routledge.

Jarvis, P. (2009). Learning to be a person in society: Learning to be me. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 21-34). New York: Routledge.

Kegan, R. (2009). What 'form' transforms? A constructive-developmental approach to transformative learning. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 35). New York: Routledge.

Kilgore, D. W. (1999). Understanding learning in social movements: A theory of collective learning. *International Journal of Lifelong Education, 18*(3), 191-202.

Krinsky, J. (2008). Changing minds: Cognitive systems and strategic change in contention over workfare in new york city. *Social Movement Studies, 7*(1), 1 - 29.

Lave, J. (1996). Teaching, as learning, in practice. *Mind, Culture, and Activity, 3*(3), 149-164.

Lave, J. (2009). The practice of learning. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 200-208). New York: Routledge.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.

Leont'ev, A. N. (1978). *Activity, consciousness, and personality* Prentice-Hall.

Livingstone, D. W. (2004). In Sawchuk P. H. (Ed.), *Hidden knowledge: Organized labour in the information age*. Aurora, Ont.: Garamond Press.

Mahn, H., & John-Steiner, V. (2008). The gift of confidence: A Vygotskian view of emotions. In G. Wells, & G. Claxton (Eds.), *Learning for life in the 21st century: Sociocultural perspectives on the future of education* (). on-line: Wiley.

McInerney, D., Walker, R. A., & Liem, G. A. D. (2011). Sociocultural theories of learning and motivation: Looking back, looking forward. In D. McInerney, R. A. Walker & G. A. D. Liem (Eds.), *Sociocultural theories of learning and motivation: Looking back, looking forward* (pp. 3-10). North Carolina: Information Age Publishing.

Mezirow, J. (2009). An overview on transformative learning. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 90-105). New York: Routledge.

Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into Practice, 31*(2), 132-141.

Nielsen, K. (2008). Gender, learning and social practice: Gendered discourses in the bakery. *Vocations and Learning, 1*, 173-190.

Robinson, C. (2007). Figured world of history learning in a social studies methods classroom. *The Urban Review, 39*(2), 191-216. doi:10.1007/s11256-007-0046-x

Roth, W. (2011). Object/Motives and emotion: A cultural-historical activity theoretic approach to motivation in learning and work. In D. McInerney, R. A. Walker & G. A. D. Liem (Eds.), *Sociocultural theories of learning and motivation: Looking back, looking forward* (pp. 43-64). North Carolina: Information Age Publishing.

Sannino, A., Daniels, H., & Gutierrez, K. D. (Eds.). (2009). *Learning and expanding with activity theory*. New York: Cambridge University Press.

Sawchuk, P. H.*Socio-cognition and social movement theory: A Marxist activity theory perspective on community/union mobilization and change.* Unpublished manuscript.

Sawchuk, P. H. (2006). Activity & power: Everyday life and development of working-class groups. In P. Sawchuk, N. Duarte & M. Elhammoumi (Eds.), *Critical perspectives on activity: Explorations across education, work and everyday life.* (pp. 292-320). New York: Cambridge University Press.

Sawchuk, Peter H. and Stetsenko, Anna. (2008). Sociological understandings of conduct for a noncanonical activity theory: Exploring intersections and complementarities. *Mind, Culture, and Activity, 15*(4), 339-360. doi:10.1080/10749030802391427

Schoen, L. T. (2011). Conceptual and methodological issues in sociocultural research and theory development in education. In D. McInerney, R. A. Walker & G. A. D. Liem (Eds.), *Sociocultural theories of learning and motivation: Looking back, looking forward* (pp. 11). North Carolina: Information Age Publishing.

Statistics Canada. (2008). *Registered apprenticeship survey.*

Stetsenko, A. (2008). Collaboration and cogenerativity: On bridging the gaps separating theory-practice and cognition-emotion. *Cultural Studies of Science Education, 3*(2), 521-533. doi:10.1007/s11422-008-9123-z

Stetsenko, A. (2008). From relational ontology to transformative activist stance on development and learning: Expanding Vygotsky's (CHAT) project. *Cultural Studies of Science Education, 3*(2), 471-491. doi:10.1007/s11422-008-9111-3

Usher, R. (2009). Experience, pedagogy and social practices. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 169-183). New York: Routledge.

Vygotsky, L. S. (1962). *Thought and language*.: Edited and translated by Eugenia Hanfmann and Gertrude Vakar. Cambridge: M.I.T. Press

Vygotsky, L. (1986). *Mind in society: the development of higher psychological processes*. Edited by Cole M., John-Steiner V., Scribner S. and Souberman E.. Cambridge: Harvard University Press.

Wells, G. (2011). Motive and motivation in learning to teach. In D. M. McInerney, R. A. Walker & G. A. D. Liem (Eds.), *Sociocultural theories of learning and motivation: Looking back, looking forward* (pp. 87-108). North Carolina: Information Age Publishing.

Wenger, E. (2009). A social theory of learning. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists . . . in their own words* (pp. 209-218). New York: Routledge.

[i] Figured worlds are of course materially produced with material consequences, but that is of less interest to the figured world camp of theorists than it might be to activity theorists, to whom material connections are arguably more central.

[ii] Holland et al., rightly note that other constructs, such as rank and gender prohibit or constrain our entry into some figured worlds.

[iii] But at a minimum, sociocultural learning theorists takes an expanded view of engagement, that is inclusive of engagement in tasks beyond institutional learning objectives (i.e., inclusive of unintended curriculum, social positioning, identity construction, etc.).

[iv] Think, for example, of the role of 'triggers' in any situated learning experience, and the role they may play, for example in mediating and/or constraining, engagement. That's not to suggest that triggers are solely affective – they are affect heavy on the affect/cognitive scale, and, they operate along-side more cognitive-heavy responses (i.e. two or several responses in play with different genealogies).

[v] I say near, because when identity isn't accessible – e.g., when we are refused entry or there are competing identities, learning still occurs, perhaps in opposition (oppositional identity) but also disengagement and conflict (which represent other kinds of learning).

[vi] Reminiscent of Leont'ev's notion of personality: "the knots that link the diverse activities in which a person participates 'are not the result of the subject's biological or mental forces, which lie within it, but develop in the system of relations that the subject engages in" (Leont'ev, p. 178 in Roth, 59); "these knots and their hierarchies constitute the mysterious 'center of personality' that we call 'I' (Leont'ev, 216)" (Roth, 59).

[vii] Described in the following terms (ranked according to mention): good pay; work that's enjoyable; something you're good at/excel in; somewhere you feel comfortable; fairness, respect; get a sense of accomplishment.

[viii] 'master' in the meaning applied by the trades is socially-historically significant, where the person in charge was, in fact, a master of the trade by virtue of his completion of apprenticeship and his having 'achieved mastery' thru activity (as opposed to an historic reading of the master-servant relationship).
[ix] Ideally I'd be able to draw this and show affordances and constraints between activity systems and better diagram their 'actual overlap' and not simply their overlap in use.
[x]#12.2 I always knew I had it in me from I seen my mom and my dad go to work, and I have three sisters, I'm the only boy. I watched my dad get up every morning, you know the responsibility, get up every morning go to work, same routine you know? I see my mom she always say "you need to work in this country" you know so like me wanting to not work or go around with people that don't want to work you see affect me, and now I see the effect you know?...I mean like my age now the age I reach now and to realize that oh you are a man, you know and if I had thought like that from I was 17, 18 I would have been you know who knows.
[xi] Statistically, culturally, historically, linguistically
[xii]In her study on high school students, Lave recommends re-conceptualizing teaching chemistry, so that it is understood to become "part of the hard work of learners who are becoming gendered, racialized, classed adults – in this case adults with an impressive interest in chemistry" (2006, p. 161).
[xiii] Masculinity and adulthood are themes that emerge through a number of interviews.
[xiv] Mixing concrete with a grasp of the physics and chemistry involved, and a confidence about its properties and use in certain conditions for particular purposes, is a different activity than mixing concrete as directed. This quote reflects an aspect /instance of alienated labour that our case study participant has overcome.