Chapter 2
Understanding Cultural Historical Activity Theory

Keywords Lev Semenovich Vygotsky • Post-Vygotskian scholars • Cultural Historical Activity Theory (CHAT) historical background

This chapter will focus on the contributions of Lev Semenovich Vygotsky and post-Vygotskian scholars who played a critical role in the development of Cultural Historical Activity Theory (CHAT) and the emergence of activity systems analysis. I will begin with a discussion of the historical background that is related to the CHAT literature. Then I will introduce theoretical concepts that are critical for researchers and practitioners to understand before they can successfully design and use activity systems analysis in their investigations or program evaluations involving complex learning environments. Finally, I will discuss how Yrjö Engeström developed activity systems analysis as a research methodology within CHAT.

Reading and Understanding CHAT

The origins of CHAT have been tied to 1920s’ Russian scholarship. Many CHAT sources were initially published in Russian; and many North American scholars, including myself, who engage in investigations using the CHAT framework, are building their knowledge on translated versions of the original texts. As individuals who are competent in more than one language are aware, translating text from one language to another is difficult. Not all cultural innuendos can be expressed in translated text format and before readers can fully appreciate what an author is trying to communicate in text-based communications they need to have some understanding of the cultural experiences of the author.

Reading translated versions of the original works on CHAT can at times be frustrating. This is because once investigators dive into this literature they will find multiple translations with slightly different interpretations of critical works in the
original Russian. For example, Leontiev’s work on defining object-oriented activity has been published in English as Leontiev (1974, 1978, 1981). They are all based on the same work published originally in Russian in 1972 in Voprosy filosofii, No. 9, pp. 95–108. The multiple English versions indicate that there have been several attempts to translate the original work. Working with multiple translations of the same work may make it difficult for non-Russian speaking researchers and practitioners to comfortably cite the original sources. For this reason, it is important for researchers to clearly articulate in their work which version of a translated text they are citing, and, if possible, acknowledge that there are different interpretations to some of the CHAT concepts and clarify which interpretation the researcher chose to use in their work.

There are several excellent journals for North American researchers to learn about CHAT. The *Journal of Russian and East European Psychology*, formerly known as *Soviet Psychology*, is an excellent source for Russian authors’ work translated to English. *Mind, Culture, and Activity* is a quarterly journal published in English on contemporary CHAT research. *Human Development* is another English language journal that has had special issues on CHAT.

North American scholars need to gain a perspective on historical events in Russia during the 1920s when CHAT originated to understand how history affected its theory development. North Americans do not share the same cultural history with Russian scholars and reading original works within its historical context will help them better understand the arguments presented in the foundational works. For example, North Americans, accustomed to freedom of speech and academic freedom, would find it difficult to imagine that their work would be subject to censorship, much less that an individual’s life may be at stake depending on what s/he chooses to study. Additionally, it is important for North Americans to be mindful and pay attention to how the names of Russian scholars are spelled. In some cases there are multiple versions of how a single Russian author’s name is spelled. For example Leontiev is spelled “Leontiev,” “Leont’ev,” and “Leontyev.” It is also important to check the first initials of Russian scholars. In several instances there are multiple generations within a family that pursue a research career in psychology.

**Vygotsky and CHAT**

Lev Vygotsky was a Russian Jewish scholar who lived through the 1917 Soviet Revolution (also called the Bolshevik Revolution, the Russian Revolution, or the October Revolution). He worked closely with A. N. Leontiev and A. R. Luria in Moscow from 1924 to 1934 until, after a 10-year battle with tuberculosis, he died at the age of 37. Vygotsky worked at a time when significant historical events in Moscow lead to hectic and confusing times. Many of his works were not accessible to North American researchers until the 1960s because they were subject to censorship by the Soviet government.
Vygotsky was one of several post-revolution scholars who was asked by the new government to reformulate psychology, incorporating Marxist philosophical principles (Wertsch 1985a). During this time, many psychologists could not reach a consensus on appropriate subject matter for psychological research and appropriate methodologies for studying psychology as a science (Bozhovich 2004). In their work, Vygotsky and his colleagues took a critical view of the history of psychology in order to develop a new and comprehensive approach to human psychological processes (Luria 1979).

Following the charge set forth to him by the government, Vygotsky based his psychology on Marxian theory to describe the relationship between individuals and their social environment (Cole 1985; Wertsch 1985b). He used Marx’s political theory regarding collective exchanges and material production to examine the organism and the environment as a single unit of analysis. Through this reformulation of psychology, Vygotsky attempted to capture the co-evolutionary process individuals encounter in their environment while learning to engage in shared activities (Stetsenko 2005).

Most scholars who are interested in any type of psychological phenomenon are familiar with the 1920s and 1930s work of Russian psychologist Ivan Pavlov on physiology and how it led to the development of the behaviorist movement. Classical conditioning, a behaviorist theory, became a popular and viable approach for explaining animal and human psychology. Undoubtedly, Pavlov’s work played a critical role in the behaviorist movement in psychology around the world. While witnessing the growing popularity of Pavlov’s work, Vygotsky became concerned that psychologists were taking a one-sided approach to examining, interpreting, and understanding human psychology (Kozulin 1990; Vygotsky 1986).

In reaction to Pavlov’s work, some Russian psychologists began to separate themselves from other scientific fields that relied on associationism. They began to define psychology as a science that treated the organism and the environment as two disembodied entities that were connected through stimulus and response relationships (Scribner 1997). Associationism brought many psychologists an opportunity to shed the pseudo-science label with which it had been burdened. They transformed their work into a more credible form of science by following the scientific method in their study of observable behaviors. Associationism provided psychologists with an organizing framework to identify variables that they could manipulate and conduct hypothesis testing in controlled settings and move away from the formerly prominent introspectionist methods.

Vygotsky did not agree with the mainstream movement toward transforming psychology into a scientific field by separating the organism and the environment. He argued that psychologists needed to develop a unified framework that supported objective study of human consciousness (Galperin 1992; Luria 1979). In this unified framework, the organism and the environment were parts of a complex system that co-created consciousness through human participation in activities (Vygotsky 1978). He was interested in identifying methods that would objectively study and explain human activities.
Vygotsky took an approach in psychology that recognized the essential relationship between an individual’s mental processes and that individual’s interaction with cultural, historical, and institutional settings (Rogoff 1990; Wertsch 1991; Wertsch et al. 1995). He believed that psychology ought to become a scientific field that studied the relationship between the organism and the environment and how it enabled the development of human consciousness. He was concerned that if scholars systematically ignored this relationship they would not be able to understand how consciousness was formed.

**Mediated Action**

Vygotsky introduced mediated action as a concept to explain the semiotic process that enables human consciousness development through interaction with artifacts, tools, and social others in an environment and result in individuals to find new meanings in their world. Vygotsky assumed that relationship among artifacts, tools, and social others were not constant and that they changed over time (Vygotsky 1987). The interactions in which individuals engage allow opportunities for mediated action that contribute to the social formation of their consciousness (Wertsch 1985b). In this interaction, individuals are not passive participants waiting for the environment to instigate meaning-making processes for them, but, through their interactions, individuals make meaning of the world while they modify and create activities that trigger transformations of artifacts, tools, and people in their environment (Scribner 1997).

Mediated action involves an interaction between the individual and mediating artifacts/tools and signs, a semiotically produced cognitive tool, that resulted from the interaction. While explaining human speech development as a mediational process involving thinking and speech, Vygotsky proposed that signs were impressions made on individuals while interacting with artifacts/tools, and these impressions assisted individual speech development as well as consciousness (Vygotsky 1987). Signs do not have concrete physical existence in the environment, but they serve as a byproduct of the interaction between individuals and artifacts/tools to mediate thought processes (Vygotsky 1978).

Figure 2.1 represents what is often referred to as Vygotsky’s basic mediated action triangle (Cole and Engeström 1993). The subject in this graphic is the individual or individuals engaged in the activity. The mediating artifact/tool can include artifacts, social others, and prior knowledge that contribute to the subject’s mediated action experiences within the activity. The object is the goal of the activity. Signs are not represented in the basic triangle, but are assumed to be an artifact of the mediated action process. This triangular representation of mediated action was Vygotsky’s attempt to explain human consciousness development in a manner that did not rely on dualistic stimulus–response associations.

Human activity is a process that involves artifacts that act as technical tools and signs that act as psychological tools available in the social environment
Vygotsky and CHAT

(Wertsch et al. 1993), and this process contributes to the formation of individual consciousness within an evolving environment. Mediated action is viewed as a means of interpersonal communication through the interactions among subject, tool, sign, and object while the subject develops new signs that help them make meaning of the world (Kozulin 1996). Once a sign materializes, the subject can transform the sign into an artifact or a cultural tool by the way in which s/he decides to continue to use and share the sign. There is not a clear moment when an artifact transforms into a cultural tool, but a cultural tool is an artifact that has gained value within participants’ activities rather than as a temporary tool for engaging in an immediate activity.

Recently, there has been a fair amount of philosophical debate regarding the use of the word “object” due to translation problems. The Russian word “object” has multiple meanings when translated into English. It has been used interchangeably to refer to the goal of an activity, the motives for participating in an activity, and material products that participants try to gain through an activity. This has created confusion among CHAT scholars regarding what object-oriented activity means (Nardi 2005). What CHAT scholars do agree about is that the “object” is the reason why individuals and groups of individuals choose to participate in an activity (Kaptelinin 2005), and it is what holds together the elements in an activity (Hyysalo 2005).

As a methodologist, I do not see it as part of my work to redefine the “object.” To be clear in this book, object-oriented activity refers to mediational processes in which individuals and groups of individuals participate driven by their goals and motives, which may lead them to create or gain new artifacts or cultural tools intended to make the activity robust. In this process, there is no guarantee that the activity will become robust. In fact, at the conclusion the activity may collapse and become unsustainable.

**Mediated Action and Internalization**

Vygotsky used the concept of internalization to explain how individuals processed what they learned through mediated action to develop individual consciousness through social interactions. In his explanation of internalization, he stated:
Every function in a child’s cultural development appears twice: first, on the social level, and later, on the individual level; first between people (interpsychological), and then inside the child (intrapsychological) (Vygotsky 1978, p. 57).

Vygotsky referred to internalization as a concept that explained how individuals developed their own consciousness. Vygotsky has been criticized for introducing internalization to CHAT because it is based on a dualistic language, which is contradictory to how he explained mediated action and it can over simplify mediated action into an input and output process.

Vygotsky’s efforts to reconcile the disembodied treatment of the organism and the environment may have been a bold attempt in the 1920s and 1930s, but his arguments themselves were not free from binding dualistic language. Current researchers and practitioners need to be aware of this and be honest about how CHAT as a field has not eliminated dualistic language in its theory development and we are still working to identify how to better explain human activity with a nondualist framework. For example, Galperin on numerous occasions has vehemently argued that, despite Vygotsky’s attempts to rid the divide between the organism and its environment, “the external remained external, and the internal remained internal” (Galperin 1992). Furthermore, by using internalization as a theoretical concept within CHAT, Vygotsky overemphasized the transformations that individuals experienced and did not sufficiently address the individual’s influence on the transformations of the social environment (Matusov 1998). As a result, a criticism of the Vygotskian method of CHAT analysis of human activity is that it became too person-centered and did not adequately address cultural evolutions.

Mediated Action in Zone of Proximal Development

Vygotsky used the concept of zone of proximal development (ZPD) as a metaphorical tool to explain the potential learning of children while collaborating in problem solving activities with an adult or peer. The well known definition of ZPD presented in *Mind in Society* is:

It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky 1978, p. 86).

Vygotsky believed that a child’s intellectual development ought to be examined during problem-solving activities. Vygotsky introduced his participants to problem-solving activities in laboratory settings to examine the interactions that took place between interpersonal activities that involved social others and intrapersonal activities that involved only the individuals.

It should be noted that ZPD is one of the major legacies of Vygotsky’s work in the social sciences. In North America, the concept of ZPD is frequently referred to as a pedagogical tool to justify instructional strategies in classrooms. In these applications, it is often separated from the CHAT perspective and instead referred to as an artifact or in some cases as a variable that educators can manipulate.
However, ZPD from a CHAT perspective is a conceptual tool for understanding the complexities involved in human activity while individuals engage in meaning making processes and interact with the environment. ZPD was a concept introduced in Vygotsky’s later works shortly before his death, and he did not live to fully develop the implications (Wells 1999). Therefore, according to Wells, even though the ZPD is a provocative metaphor, there are times that its applications by Vygotsky himself are somewhat contradictory with the rest of his theory.

For example, in *Thought and Language* (Vygotsky 1986), Vygotsky provided an example of an assessment situation to clarify his explanation of the ZPD. In the example, he described the ZPD as a numerical value based on measured problem-solving scores of a child while collaborating with a peer minus the same child’s problem-solving score working alone. This application of the ZPD promotes its use as a numerically based variable for assessing student performance. However, it is not necessarily a measurable numerical entity.

By using the ZPD as a metaphor, Vygotsky attempted to eliminate the unidirectional relationship he himself created between the organism and the environment in his internalization process. The ZPD is where the interpersonal and intrapersonal activities blend and fuse and no longer exist as different entities. Vygotsky was attempting to move away from viewing individual consciousness as a commodity that grew within an individual; instead he viewed it as a shared embodiment between individuals and their environments, including social others.

Vygotsky used the ZPD as a metaphorical tool for elaborating how interactions between individuals and their environments, including objects and social others, took place. Prior to Vygotsky’s work, psychologists examined individual intelligence based on battery tests that reflected the intellectual ability of individuals at the time of the test. In real-life problem-solving situations such as in schools, children engage in learning activities while in cooperation with social others (Vygotsky 1978). However, Vygotsky did not clearly articulate this concept to establish how the relationship between the organism and the environment dynamically evolved (Engeström 1987).

**Post-Vygotskian CHAT Theorists**

With the rising power of Joseph Stalin in the Soviet Union in the late 1920s, it became difficult for Vygotsky and his colleagues to continue their work on mediated action that focused on explaining human consciousness. After Vygotsky’s death in 1934, the Soviet government banned his work on intelligence and the study of consciousness (Wertsch 1985b). Even before Vygotsky’s death, Luria and Leontiev were pressured to leave Moscow and abandon the study of mental activity (Prawat 1999).

In the early 1930s, Luria and Leontiev moved to Kharkov, a town in the Ukraine, and were joined by local psychologists, including P. Galperin and P. Zinchenko. Together they formed the Kharkov school of developmental psychology, and
referred to themselves as the Kharkovites (Kozulin 1990). Due to political pressures and fear of maintaining their careers and lives, the Kharkovites purposefully shifted the focus of their work on human activity as a topic of study in psychology to be better accepted by the Soviet government.

The Kharkovites reexamined Vygotsky’s writings, identified their work as activity theory, and introduced analytic categories for examining the interactions between the organism and the environment (Scribner 1997). Activity theory was originally developed during the early twentieth century by S.L. Rubinshtein, independent of Vygotsky’s work, as a philosophical and psychological theory (Brushlinskii 2004). The Kharkovites extended Rubinshtein’s work by focusing on the psychological aspects and treating activity as a holistic unit of analysis directed by an individual or groups of individuals’ goals and motives for participating in an activity (Davydov 1999; Galperin 1992; Leontiev 1974). In this process, they broadened the scope of Vygotsky’s mediated action by introducing human activity as the unit of analysis that is distributed among multiple individuals and objects in the environment (Zeek et al. 2001). Vygotsky’s mediated action is often explained as a process, but human activity from an activity theory perspective is a series of processes that is contained within an activity that acts as a bounded system.

**Dealing with the Problems Brought Forth by Internalization**

To rectify the internal/external problem in mediated action, Galperin introduced the concept of “orienting activity” (Stetsenko and Arievitch 1997). Galperin (1989) explains mental activity as the ability that allows human beings to explore, examine, and predict potential results of actions they were preparing to initiate. This mental activity provides subjects with an abbreviated experience of the activity prior to the physical enactment. Galperin interpreted mental activity as an opportunity for subjects to consider and weigh the potential consequences prior to enacting the activity itself (Prawat 1999), and provided an elaboration of sign functions in human activity.

This internal mental activity orients the subject to the external physical activity, and once the subject experiences this orienting nature of the mental activity, it has already served its purpose. Hence, mental activity itself does not exist separate from observable physical action, but is part of the psychological content of an action and serves the purpose of a sign in mediated action. Indeed, psychologists can examine the psychological and physical actions separately, but by doing so they fail to encapsulate the complex nature of activity in its psychological and physical entirety.

Post-Vygotskian researchers attempted to overcome the problems brought upon by the internalization metaphor by identifying the unit of analysis in activity theory as human activity itself, which inherently included both mental activity and observable activity. In a lecture for a child psychology course at Moscow State University, D.B. El’konin, cited in El’konin (1993), made note of this relationship between meaning (mental activity), behavior (external activity), and the subject:
Human action with objects has two aspects. It contains human meaning as well as an operational aspect. If you omit meaning, it ceases to be an action, but if you void it of the operational and practical aspect, then too, nothing remains of it… Thus, these two aspects already exist within the unit of human behavior, and that unit of human behavior is a purposeful, conscious action. Moreover, these must be seen as two aspects as well, not as different spheres of the world having nothing to do with one another (p. 23).

**Activity Theory**

Contributing to the development of activity theory, Leontiev identified object-oriented activity as the unit of analysis that activity theorists are interested in examining. Object-oriented activity involves interaction among subject, object, motivation, action, goals, socio-historical context, and the consequences and activity (Davydov 1999; Galperin 1992; Lazarev 2004). Leontiev (1974)\(^1\) defined object-oriented activity as:

...a molar and nonadditive unit of a material subject’s life. In a narrower and more psychological sense, activity is a unit of life mediated by mental reflection whose real function is to orient the subject to the world of objects. Activity is thus not a reaction or a totality of reactions, but rather a system possessing structure, inner transformations, conversations, and development (p. 10).

Leontiev explained consciousness development as a self-regulated meaning making process driven by goals and motives in which individuals or groups of individuals choose to participate. This includes both mental and physical enactments of the activity that are interlaced throughout an individual’s meaning making process. Within an activity, the events that occur and the consequences the participants experience can qualitatively change the participant, his/her goals and motives for participation, the environment, and the activity itself (Kaptelinin 2005; Rogoff 1995).

Activity emerges through a reciprocal process that transforms the subject, the object, and the relationship between the two and their context (Davydov 1999; Rogoff 1995). Additionally, the activity itself holds cultural formations with its own structures (Engeström and Miettinen 1999; Leontiev 1974). Once an activity is institutionalized, it becomes a robust and enduring tool within the culture (Cole and Engeström 1993).

Leontiev provided a clear distinction between object-oriented activity and goal-directed actions. Goal-directed actions are much more temporary in nature and may be a step that subjects take in the process of participating in an object-oriented activity. Goal-directed actions often are individually focused and have less of a collective consequence to the community-based object-oriented activity (Leontiev 1974), and may be a means for individuals or groups of individuals to participate in the object-oriented activity.

\(^1\) In this article I have used the translation published in 1974 in *Soviet Psychology*. 

---

Post-Vygotskian CHAT Theorists
The work of Leontiev and his colleagues’ focused on explaining and understanding from a psychological perspective how mental and observable activity can be regarded as a single unit of analysis, and how the interaction between the two affected both the individual and the environment. Leontiev’s definition of activity allowed researchers to explain human learning as series of object-oriented activities and move away from mentalist approaches (Bedny and Harris 2005; Lazarev 2004). His work provided a framework in psychology that did not treat the organism and the environment as isolated entities (Galperin 1992; Rozin 2004).

This position has been passed on to a new generation of Russian CHAT scholars and is represented in the work of A.A. Leontiev and D.A. Leontiev, A.N. Leontiev’s son and grandson, and V. P. Zinchenko (Leontiev 1981b, 1995; Zinchenko and Leontiev 1995). In these authors’ work, we find a continual struggle to overcome the divide between the organism and the environment by treating mental activity as a process that orients subjects toward enacting a physical activity and coupling both as an element of the activity as a whole.

Engeström’s Activity Systems Analysis and CHAT

Engeström (1987) further developed analytical methods within activity theory by introducing activity systems analysis. Activity systems analysis is used to map the co-evolutionary interaction between individuals or groups of individuals and the environment, and how they affect one another. It extends mediated action as a model of human activity that accounts for sociopolitical situations (Cole 1996). It specifically addresses both the individual and the environment in order to move away from former CHAT methods that were too person-focused.

The unit of analysis in activity systems analysis is the object-oriented activity itself (Engeström 1987; Rogoff 1995; Wertsch 1991; Wertsch et al. 1995). Furthermore, when conducting research based on activity systems analysis, examining individual behavior is the entryway for researchers to vicariously experience their participants’ activities (Yamagata-Lynch 2003b). Through this experience, researchers can identify activities critical to answering their research questions and examine the collective meaning making processes (Yamagata-Lynch 2007).

As introduced in Chap. 1, Engeström’s (1987) activity systems model is represented as a triangle diagram. The top triangle – Vygotsky’s original mediated action triangle – signifies the subject that may be an individual or groups of individuals, the tool that may be social others and artifacts, and the object that can be the goal or motive of the activity represented. Artifacts that function as tools are not conveniently handed to the subject. They are invented, purchased, discarded, and replaced in the activity (Engeström and Middleton 1996). Therefore, subjects may discover new tools across multiple activities and the value of a tool may change over time as they engage in new activities. The rules, community, and division of labor components add the socio-historical aspects of mediated action that
were not addressed by Vygotsky (Engeström 1999a). As described in Chap. 1, rules refer to formal or informal regulations that can, in varying degrees, constrain or liberate the activity and provide to the subject guidance on correct procedures and acceptable interactions to take with other community members (Engeström 1993). The community is the social group with which the subject identifies while participating in the activity. The division of labor refers to how the tasks are shared among the community. All of the above components of activity systems, including Vygotsky’s triangle and the bottom socio-historical components described in Chap. I can mediate change that may lead to an outcome not only for the object but also for each other (Engeström 1993).

Human activity can trigger tensions caused by systemic contradictions (Cole and Engeström 1993; Engeström 1987, 1993). These tensions arise when the conditions of an activity put the subject in contradictory situations that can preclude achieving the object or the nature of the subject’s participation in the activity while trying to achieve the object. In some cases, the activity may collapse altogether and the subject may not be able to attain the object. In other cases, subjects may attain the object but be dissatisfied about how they attained the object.

Three Generations of Activity Theory

Engeström (1996, 2001) described three generations of activity theory research as distinct approaches to activity theory. He refers to Vygotsky’s identification of the mediated action triangle as first generation activity theory. Second generation activity theory is attributed to A.N. Leontiev’s work that emphasized the collective nature of human activity, along with Engeström’s own work in 1987 that developed the activity systems model. Finally, Engeström refers to third generation activity theory as applications of activity systems analysis in developmental research where the investigator often takes a participatory and interventionist role in the participants’ activity to help participants experience change.

Many studies in the United States using activity systems analysis have primarily focused on the descriptive nature of second-generation activity theory, and used activity systems analysis as a supplementary tool in qualitative research. In these studies investigators chose not to take an interventionist position, but instead used activity systems analysis as an analytical tool for understanding complex human learning situations that can be observed in natural settings. Scholars who do not necessarily identify themselves as CHAT scholars have completed many of these works, but consumers of this methodology found the benefits it brings to their work. These works have provided valuable insights into how activity systems analysis can be applied as a methodology within social science research and practice. However, many CHAT scholars now encourage investigators to engage in new work within an interventionist framework using third generation activity theory.
Identifying Bounded Systems for Activity Systems Analysis

Engeström (1999b) suggests that activity theory researchers and practitioners need to examine interactions shared among multiple activities and the boundaries of those activities to identify the potential development and changes in both human activity and societal systems. In order to engage effectively in these types of studies, investigators need a framework that will help them identify boundaries within complex systems. This boundary identification framework will guide the investigators’ design, development, implementation, and analysis processes.

Identifying bounded systems from real-world complex human activity and its context can become difficult and unmanageable. When engaging in my own work, in addition to the typical activity theory bounded systems including object-oriented activity and goal-direction actions, I rely on activity settings and the three planes of sociocultural analysis to identify units of bounded systems in my data set. As a theoretical tool, activity settings provide frameworks for identifying bounded contexts in which the object-oriented activities and goal-directed actions that investigators observe take place. The three planes of sociocultural analysis is a theoretical tool that provides a framework for investigators to identify bounded units of activity based on the subject who is engaging in the object-oriented activity or goal-directed action. I will provide a discussion on both activity settings and the three planes of sociocultural analysis below.

Activity Settings

Activity settings are bounded systems related to the social environment in which object-oriented activities and goal-directed actions are anchored with other related activities with similar objects (Gallimore and Tharp 1990). It is the setting that provides the context in which activities take place (Tharp and Gallimore 1988). Activity settings are an inseparable component of human cognitive action (Rogoff 1990) because they influence the types of activities subjects will potentially encounter. Investigators are able to bind the contextual information that is most relevant and essential in a data set by identifying activity settings through an interpretive process.

By identifying activity settings, investigators will be able to describe the relationship between participant activities and the social environment without being overwhelmed with contextual information that may be irrelevant to their studies. Thus, activity settings allow investigators to interpret how participant activities are influencing and are being influenced by the social context (Rogoff 1990; Wertsch et al. 1995). In this process, investigators will find how activity settings, object-oriented activity, and goal-direction actions are fluid, intertwined, and changing from moment to moment (Lave 1993).
Three Planes of Sociocultural Analysis

The three planes of sociocultural analysis, which consist of the personal, interpersonal, and institutional/community planes, rely on the subject of an activity to identify bounded systems of activity (Rogoff 1995). The individual is the subject of activities that take place in the personal plane. The subjects of activities that take place in the interpersonal plane consist of groups of individuals engaging in collaborative initiatives. Community-based collective global activities are the subject of activities that take place in the institutional/community plane. Each of these planes can help identify object-oriented activities and goal-directed actions into units of bounded systems. In activity systems analysis, the object-oriented activities under investigation still remain to be the unit of analysis, but the subject of that activity can be an individual, group of individuals, or an organization.

Out of her concern that CHAT scholars often become overwhelmed in the analysis process of their work, Rogoff (1995, 1998) suggests that during investigations they ought to zoom into one plane of analysis at a time and blur out the other two planes. Blurring out is not equivalent to ignoring. Blurring consists of identifying the salient features of the planes that are not being examined but are essential and relevant to the study to help further appreciate the complex activities that take place on the zoomed-in plane of analysis. Thus, investigators can avoid making data analysis in CHAT research needlessly complex by clarifying, for themselves and their reader, which plane of analysis they are examining in their study.

Summary in Relation to Activity Systems Analysis Research Design

My goal for this chapter was to describe three key concepts that will help researchers and practitioners to successfully proceed with their work using activity systems analysis. This summary will provide the reasons investigators using this methodology need to understand specific concepts within CHAT before engaging in an activity systems analysis research and how these concepts can guide future research or evaluation design and implementation.

First, researchers and practitioners interested in using activity systems analysis need to understand mediated action and how Vygotsky used it as a concept for describing human activity and bidirectional relationship with the environment. Researchers and practitioners have to understand how Engeström used mediated action as a foundational concept while formulating his activity systems model. Activity systems analysis is a method to capture multi-mediational processes in human activity (Engeström, 1987, 1999a, b). Therefore, while engaging in activity systems analysis, investigators need to develop questions that will address mediational activities. Investigators then need to design the data collection methods to specifically capture information that will enlighten them about their participants’ mediational processes.
Second, researchers and practitioners need to understand what object-oriented activities and goal-directed actions are from a CHAT perspective and be able to identify them in activity systems units. Activity systems do not present themselves in observed data sets in a neat and organized manner. Once investigators begin their data analysis, they will find that their data set is messy and complex. Through an interpretive process, investigators need to immerse themselves with the data and identify the multi-mediational activities their participants’ experienced. In this messy process, investigators have to parse their raw data into object-oriented activity and goal-directed action units.

Finally, researchers and practitioners need to understand how to identify bounded systems in their data sets when engaging in activity theory studies. While identifying these bounded systems investigators must ensure that the process does not oversimplify or overcomplicate participant experiences. Interpreting data involving real-life interactions in a natural setting can be overwhelming because the information that is relevant and essential to the study and that which is not are all in the data set. Therefore, conceptual tools such as activity settings and the three planes of sociocultural analysis are helpful when investigators are parsing the data set into units of bounded systems.
Activity Systems Analysis Methods
Understanding Complex Learning Environments
Yamagata-Lynch, L.C.
2010, XVI, 148 p., Hardcover
ISBN: 978-1-4419-6320-8