

# *Activity Theory: A Framework for Analysing Intercultural Academic Activity*

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**Abstract.** *This article suggests that Activity Theory (AT) can be applied as a holistic framework to analyse the complex sociocultural issues that arise when academics wish to engage in collaborative activity across institutional and cultural boundaries. Attention will initially focus on how Activity Theory, first formulated in the 1930s by Leont'ev (1978), and subsequently developed into a second generation by Engeström (1987), can help to analyse and illuminate the inherent complexity within any one community of practice. A more elaborate model of AT (Engeström, 2001) is currently being developed and applied to analyse and illuminate collaborative activity across institutional boundaries, so as to transform discourse communities into speech communities of practice through expansive learning. It is suggested that this 'third generation' model can be further refined to analyse specific contact zones, within and between activity systems, as a precursor to undertaking collaborative activity. It is suggested that, when discourse communities deriving from different culturally diverse traditions seek to work together, such an a priori analysis would enable potential areas for miscommunication and misconstrual to be identified and possibly resolved before collaborative activity actually commences.*

**Keywords:** *Activity Theory, models, sociocultural, culturally diverse, academic activity, analysis, research, community of practice*

## **Introduction**

The premise of this paper is that any organisation is in a state of permanent disequilibrium, or development, as it faces internal or external challenges to its aims, activities and outcomes. These pressures might arise from various sources: more or different demands for its products or services; new (or new

applications of existing) technology; promotion, loss or recruitment of personnel; changes in internal or external regulations, etc. To meet these challenges, a holistic framework is needed to illuminate the internal operation of the organisation, and thus facilitate the *systemic* planning of change. This is a complex matter within a single institution, and the difficulty is compounded when two organisations (such as universities) seek to collaborate in a joint academic venture to achieve mutually beneficial outcomes. In this case, each institution needs to examine the dynamic structure of its internal activity and, as far as possible, align it with that of the other. The complexity of analysis is even more acute if the two universities have emerged from different cultural traditions, as might be the case when an Australian university wishes to collaborate with a university in an Asian country. Here, the academic discourse and underlying systemic structures may be superficially similar, but the ways that these discourses and structures are interpreted by the key participants in each of the two universities might be at variance. As Engeström points out any activity system is “always a community of multiple points of view, traditions and histories (1987, p. 136).

This paper suggests that Activity Theory could provide a suitable framework to enable actors within one community of practice (Wenger, 1998) to examine the dynamic nature of their own internal structure and co-construct the implications of inevitable change as it affects their own interconnected activity within the system. Those wishing to collaborate with professionals in an external organisation (fellow members of a discourse community - Swales, 1990) would then share their respective understandings. By identifying the extent to which the two systems converge and diverge, the discourse partners could seek to co-construct solutions which could bring about the conditions necessary for effective academic collaboration.

Taking its cue from Vygotsky’s formulation of a sociohistorical perspective from which Sociocultural Theory has its origins, this paper will begin with an historical review of the development of models of AT from its conception in the early 1930s by Vygotsky and his collaborators, Luria and Leont’ev, through to recent developments by Engeström and his associates. The affordances of each of the emerging models will be explained, and also their limitations, particularly as they concern collaboration between culturally-diverse activity systems. A potentially more useful model is presented, and exemplified.

### **Activity Theory as a Sociocultural Analytic Framework**

Despite its name, Activity Theory (AT) is not actually a theory or a particular methodological approach, but rather a comprehensive model of the interrelated elements of an activity system. As such, it provides a philosophical framework which can facilitate the investigation, illumination and description of a community of practice (Wenger, 1998), which is where people work together with shared histories of activity and discourses to achieve common goals.

Following the unfinished work begun by Vygotsky (for example, 1929, pp. 420-421), Leont'ev formulated what has become known as the first generation of AT.

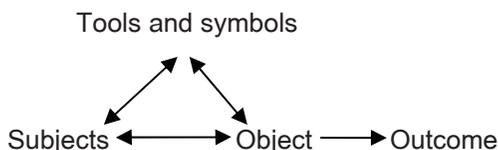


FIGURE 1 The original model of Activity Theory (Leont'ev, 1978)

Leont'ev (1981, pp. 210-213) used the 'primeval collective hunt' to elucidate his model. The Subject is the individual or group engaging in the social activity chosen for investigation; thus the hunter collaborates with others, using Tools (spears, knives, bush-beaters, etc.) and Symbols (especially spoken and nonverbal language) to mediate the joint venture, the Object of which is the prey. The desired Outcome, but one which may not be achieved, is the transformation of the prey to killed beast. There is constant interplay between the elements of the activity system; for example, the dead animal would then become the Object of other Subjects – those who skin, clean and cook it, using appropriate Tools and Symbols – with the intended Outcome of providing food for members of the community. Leont'ev's model has three salient features: firstly, activity is *significant* – that is, it is determined by the individual's motivation; secondly, it is *social*, in that an individual's motivated activity is never considered separately from society – "activity emerges as a process of reciprocal transformations between subject and object poles" (Leont'ev, 1981, p. 46); thirdly, it is *systematic*, in that activity is broken down into actions, and actions into operations, all serving to achieve the overall aim.

To illustrate the latter point, the activity of teaching can be analysed. *Operations* are the routine steps taken by a teacher in the course of any lesson – such as issuing instructions, giving feedback, making notes on the whiteboard, etc. These are carried out without much conscious thought – although almost all operations are firstly learnt consciously before they are automatised. Added up, such operations amount to the *action* of teaching, which is entirely socially implicated. There cannot be teaching without a community of learners, and usually there is a community of practice (Wenger, 1998) among teachers in an institution with whom the individual teacher shares and co-constructs experiences, attitudes and knowledge. There is also a community of fellow professionals who maintain contact with each other through the sharing of texts – professional journals, books, and non-contiguous association, such as through computer-mediated networks. Moreover, there is a wider social community whose work impinges on the teacher such as theorists, textbook writers, publishers, and bookstores. All of these factors lead towards the *activity* of teach-

ing, the goals of which are socially determined in a collaborative endeavour to achieve the desired outcome – the improvement of students’ learning. It is obvious that, although teaching is universal human activity, each culture will place differential values on its goals, and the means of attainment of the intended outcomes within the contexts of the specific activity system.

Much of Leont’ev’s work was unknown even in the Soviet Union until the 1960s, and Activity Theory only became well known outside the USSR after the *perestroika* of the 1980s largely due to the work of Engeström and his colleagues in Finland, the UK and the USA. As Engeström has pointed out “Leont’ev never *graphically* expanded Vygotsky’s original model of a collective activity system” (2001, p. 134 – emphasis added), which he represented as follows:

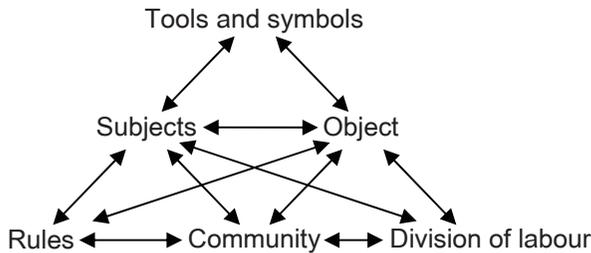


FIGURE 2 An expanded model of Activity System (Engeström, 1987, p.78)

The diagram shows Engeström’s development of Leont’ev’s original model by mapping the underlying social foundations of activity between individuals. As noted above, very little meaningful activity is accomplished individually. Central to Activity Theory is the notion of distributed cognition - “the mind does not work alone” (Pea, 1993, p. 47). In other words, an individual’s knowledge and meaning are shaped by others in their community of practice which may be characterized by mutual engagement in a joint enterprise, using a shared repertoire of common physical and symbolic artefacts, including specific uses of language. Thus, knowledge and skills derived from and applied to these artefacts are distributed within the each specific community of practice – of hunters, farmers, businesspeople, or educators. Individual and collective activity is both facilitated and constrained by social rules; these include explicitly stated policies, laws and regulations as well as the implicit conventions, codes and *mores* that govern relationships among members of national, professional or institutional communities. It needs to be added that individual members will vary in their understanding of, and adherence to, these rules, but they nevertheless constitute cultural boundary markers of a community. The division of labour refers to the horizontal allocation of tasks between community members; in the collective hunt activity, the actions might be distributed among those who stalk the prey, those who beat the bush, those who actually kill the animal. Likewise an academic community of practice may make a division of

labour, according to the respective knowledge, skills and experience of administrators and academics, of those who primarily teach and those whose interests are more inclined to scholarship and research, of archivists and entrepreneurs, and so on. The division of labour also refers to the vertical distribution of responsibility, status and power – the chief of the hunt to the neophyte, the professor to the tutor, or the Vice-chancellor to the receptionist.

### **The AT Framework Applied to a Community of Practice**

The framework allows a community of practice to be viewed as a unified activity system in which the constituent elements are interconnected at all levels. Thus, the framework facilitates an analysis of the individual and collective transformations that occur between and across levels within an activity system by seeking to make explicit as many of the intersecting relationships within a community of practice as is necessary or desirable. Since any activity system is dynamic, the changes brought about over time will raise contradictions in both what the community members actually do, and in their perceptions of the purposes of the activity, actions and operations.

As a framework for exploratory research, it should be clear that Activity Theory requires a predominantly qualitative approach to the investigation and illumination of an organisation. Thus, the selected components of the activity should be explored in entirely natural settings with both investigators and actors fully participating in the process. The research time-frame should be longitudinal – sufficient to appreciate changes in the actions and objects of activity, and the relationships between them over time. Since the perceptions, attitudes and beliefs of members of the community are to be elicited and made explicit, varied data collection procedures (interview, reflective accounts, observation, focus groups) need to be employed and attention paid to institutional and interpersonal developments at micro-, meso- and macro-levels. The data thus collected should be subjected to a process of grounded analysis, with constant comparison and contrast of data to identify emerging patterns; the software programme *NVivo8* (Bazeley, 2007) is particularly helpful in managing, collating, and coding the necessarily large amount of such data.

As a research tool, the AT framework can be used, *inter alia*, to:

- identify the roles of the subjects undertaking the activity
- clarify their motivations
- analyse in depth each of the components of the activity subsystem
- examine the interconnections within and between subsystems
- explore the interactants' use of physical or symbolic tools
- trace the development of common understanding across subsystems
- reveal the development of relationships among interactants
- plot the interdependence of individuals and the community of practice.

Any of the triangles illustrated in the expanded model can serve as the focus for analysis. For example, the developing relationship between subject (teach-

er) and object (learner) as mediated by a specific cultural artefact (textbook) could be the prime consideration of one study. Another might explore how the academic interactions between subject and object are influenced by the institutional norms of the horizontal and/or vertical division of labour, such as might be the case as regards university lecturers and tutors. Yet a third might take an historical view of how the use of mediating tools, for example computer technology, has affected the division of labour within (part of) an organisation over a period of time – and so on. Disseminating these explicated connections has the advantage of ensuring that those involved can appreciate how their own activity interacts with that of other members, and what contradictions and affordances exist, or potentially exist, in the various intersections of the activity system.

Applying the AT framework to a single institution presents the same potential threats to external reliability as any other approach to case study. However rigorously and consistently the procedures of data collection and analysis are carried out, and however transparently and honestly the findings are reported, there remain two inherent problems which cannot be entirely overcome. Firstly, the relationship between the elements is inevitably subject to change over the course of time as inner tensions emerge between the beliefs of the different subjects, as technologies (and the use of these tools) change, as divisions of labour become blurred or more sharply distinguished, and when – as a consequence – the community's explicit rules become outdated, and new ones emerge, often slowly and perhaps imperceptibly to many of the interactants. This is why current theorists such as Engeström emphasise the essential *socio-historical* nature of Activity Theory, and argue for a transparent and coherent information flow in terms of 'expansive' learning (Engeström, 1987, p. 174) among the subjects of the system. The second major threat is the truth value of what research participants report about their activity and perceptions. As suggested above, it may be that the participants are unaware of both current and emerging aspects of their own activity, and that of others whose work impacts upon their own; consequently, they may unwittingly provide misleading data, or simply fail to provide necessary information. Even when they are fully cognisant, they may not be willing to disclose their knowledge to others, even when they are actively participating in the research project. Such unwillingness might arise for various reasons, among them the perceived threat to their personal or professional position from accidental – or deliberate! – breaches of confidentiality. This might be particularly the case when those seeking information are actually members of the same speech community of practice, where suspicion may arise of 'hidden agendas'; as Morrison (1998, p. 186) has noted: "despite assurances that the work is 'academic' one is never quite sure that the explanation is accepted". On the other hand, if the data analyst is not a member of the local speech community of practice, information honestly and accurately provided may be misinterpreted because the interlocutor – even if a member of the discourse community - does not share the same contextual

ground as the informant.

Evidently, there must be rigorous adherence to the principles and procedures of human ethical research relevant to social inquiry. But even when the analysis and research is scrupulously carried out, considering the fluidity of an activity system, the multi-faceted subjective nature of the information given and received “reliability in its traditional sense is not only fanciful, but impossible” (Merriam, 1998, p. 206). The alternative to the conventional reliability of a study being based on its replicability in other contexts are, according to Lincoln & Guba (1985) criteria based on dependability and consistency to ensure that the results ‘make sense’ to others. Likewise, Bassey (1981, p. 86) referred to ‘relatability’, by which he meant that the clarity and explicitness of the description should enable a reader to relate the case study to his or her knowledge of the activity system, and thereby trust the judgement of the researcher.

### The AT Framework Applied across Two Activity Systems

Engeström’s 1987 model thus facilitates the description and analysis of the internal contradictions that lead to innovation within one specific system. However, the model takes less account of how interaction can be investigated between two activity systems because the inevitable contradictions within one organisation are of course compounded when two institutions wish or need to collaborate. Work is in progress on a third generation of Activity Theory ([www.edu.helsinki.fi/activity/pages/chatanddwr/activitysystem](http://www.edu.helsinki.fi/activity/pages/chatanddwr/activitysystem)) with a view to developing appropriate conceptual tools to explore the expanded transformations that occur when two communities of practice seek to bring about co-constructed outcomes.

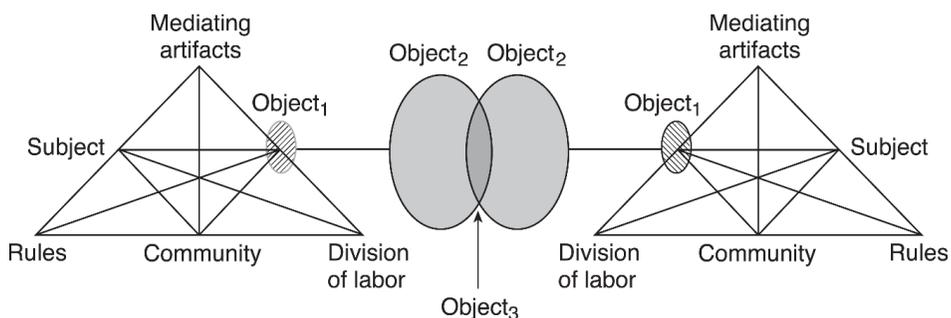


FIGURE 3 ‘Third generation’ Activity Theory  
 ([www.edu.helsinki.fi/activity/pages/chatanddwr/activitysystem](http://www.edu.helsinki.fi/activity/pages/chatanddwr/activitysystem))

How this model can be applied may be seen in Engeström’s (2005) example of how two activity systems - a primary health centre and a hospital clinic - collaborate in the treatment of a patient’s illness (the object). The patient and his/

her illness is initially perceived as a separate object in each of the two communities of practice – for example, when a specific patient is referred by a general practitioner to the clinic. The patient’s illness is transformed firstly into two interlinked objects (the illness diagnosed within each system as an example of a specific medical category) and then into a co-constructed object so that the two systems can collaborate to achieve the desired outcome – an effective health plan. Another example is given by Yamazumi (2007) where he discusses the formation of ‘New School’ a collaborative project to enhance the after-school learning of young children by school and community organisations, facilitated by the Centre for Human Activity Theory at Kansai University, Japan. A third example is the project headed by Daniels at the University of Bath connecting organisations involved in “developing the education and care trajectories of 14-16 year olds who are disaffected at risk or exclusion, and/or have special educational needs” (Daniels et al, 2005, p. 81).

By thus working together the two separate activity systems not only treat the patient or educate the child effectively, but also undergo a cycle of ‘expansive’ learning — a transformation which Engeström (1987, p. 174) relates to Vygotsky’s zone of proximal development. Such transformation requires extensive communication between the subjects to make explicit and, as far as possible, align the various elements of the two separate communities of practice. As Edwards has pointed out (2007, p. 9) the need for mutual scaffolding among professionals collaborating ‘horizontally’ across two systems becomes acute because there is inevitable pressure from strong vertical divisions of labour within separate community of practice.

Swales (1990) has made a useful distinction between speech and discourse communities: the former may be said to be locally-based groups who speak the same language face-to-face, whereas discourse communities comprise dispersed groups who communicate through texts. Medical practitioners who work in the same institution form part of a local speech community of practice and have the opportunity of meeting together to directly share their experiences, perceptions and reflections on their interrelated practice. At the same time, although separated by distance, there is a sense in which they are members of a wider discourse community by virtue of having indirectly encountered, for example through reading a common stock of medical works, attending conferences, etc, similar constructs relating to therapeutic theory and practice. In this respect, general practitioners and hospital clinicians belong to the same discourse community, but lack the immediacy and intimacy of the localised speech community. When considering the need or desirability for medical practitioners in two (or more) activity systems to co-construct a joint activity, there is a need to bridge the communal gap as far as possible by individuals working at the action level in close physical proximity to build mutual understanding and trust — and thereby form a local speech community. When this is done systematically and over an appropriate time-span, the risk of the two systems operating at cross-purposes is reduced: the contact zone becomes one

of merger rather than collision, of harmony rather than dissonance, and of proximity rather than distance.

While separate communities such as doctors' surgeries and hospital clinics, and schools and community organisations, may be regarded as distinct systems, they do operate, respectively, within parallel discourse communities, and share many assumptions and values. Moreover, as is clearly the case in Engeström's medical example, there is a very specific object to be transformed into an outcome, and indeed a need to do this with some degree of urgency. The transformative learning that occurs within the co-constructed activity between the two systems is a by-product - albeit important an important one in the longer term, and crucial to the eventual merging of the two systems into a single community of practice.

### **The AT Framework Applied to Culturally Diverse Activity Systems**

If, on the other hand, two systems wishing to collaborate in an activity do not have an *urgent* need to undertake co-constructed activity to achieve a specific outcome, it may be more important for expanded learning to occur before, rather than while, the activity is in progress. Thus the AT framework can be used to undertake an *a priori* analysis as a bridge-building exercise. This is particularly the case where the two systems, although members of parallel discourse communities, have emerged from quite different cultural traditions, where superficial similarities in tool use, rules and regulations, divisions of labour, etc mask profound divergences of perception and practice. In many such cases, mutual misunderstanding and misconstrued activity is more than a mere possibility.

A case in point is the trend for many universities to achieve international connectedness by seeking to establish formal academic links with overseas institutions - through, for example, arrangements for international students to undertake programmes jointly run by partner universities, the exchange of teaching and academic staff, and the setting up of collaborative research projects.

It is suggested therefore that the Activity Theory framework can be refined to facilitate the prior analysis of activity within and between international institutions:

## Intercultural Activity Theory

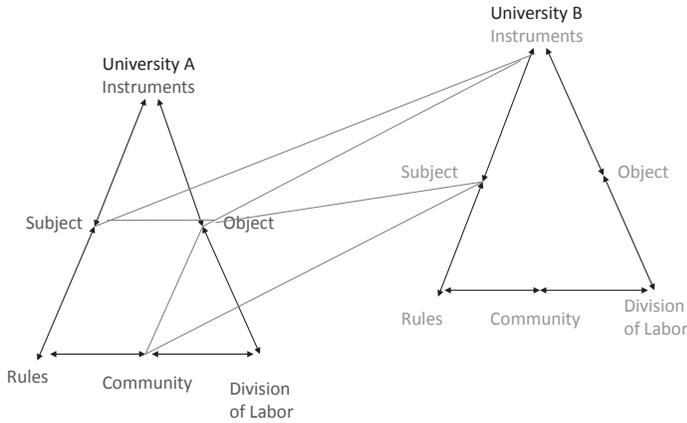


FIGURE 4 A suggested refinement of the third generation model of Activity Theory

In such a model, various elements of the two systems can be analysed at different intersections, any of which would eventually be synthesised into a new activity system conjoining aspects of both cultures. (The number of triangulations between the two systems can of course be increased, but this would needlessly complicate the diagram.) In some ways, each triangulated contact zone thus illustrated resembles what Bhaba (1994) has termed a ‘third space’, which he describes as ‘hybrid’ between two cultures. Given the dynamic nature of interactions between individuals and between institutions in cross-cultural contact zones, a rich field opens for comparative analyses, but only after each activity system has been analysed and explicated in its own terms.

Such analyses are, it can be argued, a pre-requisite when collaborative projects are planned between academic institutions with diverse sociocultural-historical traditions, as might be the case when an Australian university seeks to collaborate with a partner institution in, say, Vietnam. With regard to proposed joint teaching programmes, it would be important to examine the extent to which apparently similar artefacts in the two systems are differently applied to enable the transformation of the object of the activity. For example, what (differential) use is made of textbooks, lecture notes, handouts, computer-generated materials, etc? What convergence and divergence prevails regarding the respective rules and conventions applied to the notion of intellectual property, and how are these made known within the communities? Similarly, tests, examinations and other forms of assessment are commonly used across different academic communities, but questions arise as to the extent to which, and the means by which, learning is measured or evaluated: Are the purposes the same? What feedback is required – and in what form and how much? What action, if any, are students expected to take after receiving the feedback? What criteria form the basis of grading? What are the academic consequences, and

the social impact, of low grades or failure?

With regard to the exchange of academic staff between intercultural organisations, an AT framework could be applied to analyse, separately and then comparatively, the ways in which the division of labour in the two communities affects intra- and inter-institutional interaction. What are the ascribed roles for, and hierarchies of, academic staff, and what are the implications of these vertical and horizontal divisions – for example, in terms of teaching versus research, or in the nature of research supervision, or the peer review of academic quality? What expectations, resources and facilities are made available for research and publication? What social and financial distinctions are made between academic and other staff? What are the formal and informal (i.e., actual) power relationships? What similarities and differences are perceived in the general and specific division of labour? What impact do these findings have on the relationship between academics in one community of practice with those in the partner institution?

Collaborative research projects between partner institutions, especially international ones, require researchers to have a critical awareness of their own cultural dispositions, and also knowledge of, and empathy with, with those of the other. Before setting up a collaborative research activity, mutual understanding needs to be co-constructed concerning the nature and motivation of research and scholarship, ways by which methodology (especially perhaps qualitative approaches) can be both ethically appropriate and culturally sensitive, and how intellectual property issues concerning the collection, analysis and dissemination of data can be resolved. Assuming mutual understanding is reached, detailed negotiation is then needed to identify and explicate the sociocultural issues within the specific activity context. The project members need to agree on their respective intentions, motivations, roles, actions and operations – taking into account similarities and differences both within and between the two institutions with regard, for example, to the horizontal and vertical division of labour in research activity in general and in this project in particular. Academic colleagues working on collaborative projects will necessarily bring different skills, knowledges and experiences to bear on the investigation. To transform the object of the activity into the desired outcome, each member of the collaborating team will need to understand how to play not only his/her assigned role in the agreed division of labour, but also how to work across boundaries to more fully and effectively share their expertise with team members .

It is suggested that in advance of formal mutual agreement between the two discourse communities to actively engage in a specific project, a working party be established in each system to undertake the a priori analysis within their respective systems, initially within the key triangulations directly implicated in the proposed activity (as may be illustrated in Figure 5), but also taking into consideration the impact of related elements. When sufficient information has been elicited within each of the systems (and potential or actual contradictions identified and, possibly, resolved), the working party can make a comparative

analysis by sharing each other's information and insights – again with a view to identifying potential problem areas. In this way, expansive learning will occur to enable the formulation of a relevant zone of proximal development within which the joint activity can start to operate. In effect, this working party itself constitutes an embryonic activity system with the object being to identify the feasibility of co-constructed future action.

## **Conclusion**

In the above discussion, the existing models of Activity Theory framework have been discussed in terms of their usefulness in illuminating the fluidity of activity within a single system (community of practice) and then between initially separate systems (discourse communities) which, through expansive learning, strive towards achieving unity by seeking common outcomes through the collaborative use of tools and shared perceptions of rules and regulations and the appropriate division of labour.

A refinement of the current AT model has been explained as a useful, indeed essential, tool for the analysis of inter-institutional projects, and especially those involving intercultural links. It was argued that unless both partners in a collaborative research project understand their own activity system, and that of their collaborators, effective cooperation may be jeopardised because the operations, actions and activity of each party would be carried out without understanding or acknowledging the singularity of the respective underlying assumptions.

It is not suggested that all components of the particular activity system(s) need be, or can be, analysed in detail. However, the framework does allow members of the community to identify triangulations relevant to their intended joint activity – those which could give rise to critical concern - and then systematically analyse them, bearing in mind that other, perhaps less fully examined configurations, may have a crucial bearing on the particular triangulation/s under analysis, and indeed the overall activity which is being carried out.

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