Activity Theory as an Interpretive Framework for HR Systems: Some Insights and Potential Contributions

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Abstract. Human Resource (HR) systems are increasingly being focused on as subjects of study by researchers and analysts alike. However, there are persistent themes that resonate among existing HR studies, revolving around the disharmonies between wider organisational strategies and individual-oriented HR systems, as well as the quest for stability in an environment of prevalent ambiguities. The study uses activity theory as interpretive and investigative framework to bridge the gaps in the way HR systems are analysed. A number of theoretical constructs that could potentially complement mainstream approaches are suggested and explained. These include the idea that HR systems could be viewed as object-oriented activity systems that consist of complex relationships and connections, and an acknowledgement that tensions and contradictions are integral part of human activities which ought to be seen as opportunities for development and change.

1 Introduction

Research is increasingly paying close attention to organisational Human Resource (HR) systems. This follows and is consistent with the bulk of the management literature that posits that employee skills, knowledge and competencies are key differentiating factor in today's knowledge-based competition. This is the essence of the resource-based view of the firm that holds that competitive advantage can be achieved by "facilitating the development of competencies that are firm-specific, produce complex social relationships, and embedded in a firm's history and culture, and generate tacit organizational knowledge" [1:699]. If these competencies and knowledge are to be realized, a solid human resource management becomes a crucial precondition. An organisation's human resources are the individuals working in the organization while the organisation's macro strategies are dependent on those human resources [2]. More specifically, a dedicated human resource system is required that ensures that distinct but interrelated activities and processes are geared towards the development and maintaining of a firm's human resources [1].

Although the vitality of HR systems to organisational success is widely acknowledged, there have been myriad perspectives and interpretations on the subject among researchers, judging from the myriad models, theories and frameworks have been applied to make sense of the field. These have been used as theoretical lenses through which the field has been viewed, advancing our understanding the dynamics of information systems. For example, [3] observed that structuration theory [4] has

been applied to connect the individual with the organisational social process especially when considering IS strategies, Actor Network Theory [5] has been instrumental in the analysis of IS case studies with regards to acceptance and implementation, as it pays attention both to humans and technical tools in a network. [3] used Chaos Theory which stresses instability and non-linearity of dynamic systems.

Despite these diverse contributions from the aforementioned theories, however, a number of inconsistencies still persist in the way HR systems are analysed and interpreted. This paper suggests an alternative conceptualisation derived from activity theory [For example 6, 7, 8] and argues that activity theory constructs could be instrumental in the investigation and interpretation of HR systems. The rest of the paper is structured as follows: the next section reviews the traditional literature on HR systems, especially as it relates to organisational competencies. Particular attention is paid to gaps and contested areas which are not adequately addressed by the said literature. Second, an overview of activity theory is offered, highlighting its core components and concepts. Third, potential insights and contributions of activity theory in bridging the gaps identified earlier in the paper are discussed. Finally, the concluding remarks are briefly outlined.

2 HR Systems and Organisational Competences

The HR discipline is fundamentally concerned with the concept of job competence at the micro, individual level [9, 10]. Job competence is defined as the possession of skills that are critical for the individual to master if he is to perform well in the completion of his task [9]. If HR is concerned with the micro and individual level, it becomes an imperative that it is in harmony with the macro organisational levels such as goals, objectives and strategies. This notion has been pointedly stressed by [ibid], who maintain that misalignment between organizational strategy and HR systems (i.e. processes, policies, and technologies) risks undermining the achievement of competitive advantage in the market, as it could act as a barrier to the attainment of new competences as well as the advancement of pre-existing ones. While bemoaning the apparent gulf between the macro (strategic/organisational) and the micro (individual) levels, the writers attribute it to divergent disciplinary inclinations between the strategy and HR literatures. The former is pre-occupied with the organisational-level analysis and is geared towards achieving organisational core competencies, originally formulated by [11], in order to gain competitive advantage. At the firm level, competences emanate from the organisational culture and routines [12]. The HR literature is at the micro or individual level and emphasises the individual's competencies as key influences on the way a person performs at work. Here, individual characteristics determine the level of competence an individual has attained, which in turn has a bearing on performance. These include "motivation, disposition, self-image, values, moral standards, norms of social behavior, and traits, as well as communication, general reasoning, and learning capabilities" [9:437].

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The literature on HR systems depicts an apparent inability to reconcile divergent conceptions about approaches to effective HR management. For instance, a point highlighted by [9] revolves around the difficulties faced by firms in choosing a human resource approach, noting that prior research has distinguished between job-based and skill-based approaches when formulating HR systems. The traditional job-based approach utilises job descriptions to link work tasks with people with the desirable profiles for the role. Thus, by adhering to the contents and boundaries of job descriptions, this approach limits the individual's potential for developing crucial capabilities, including learning, flexibility, communication, collaboration, and innovation. It needs to be said that an inability to harness these capabilities are detrimental to the realisation of organisational goals. In a distinct departure from the job-based approach, the skill-based approach stresses the individual's competencies and skills needed at the workplace. Here, the job description and the task are not the focal points but the behaviour and skills of the individual. The skill-based paradigm has the potential to enable the employees to undertake various tasks, as opposed to the narrow constraints of the job-based perspective.

A common argument in the HR literature is that HR practices impact on organisational performance in two ways [13]. First, HR practices shape the skills, attitudes, and behaviours of the organisation's workforce, and in turn these behaviours influence organisational performance. Second, HR practices can impact directly on organisational performance by creating structural and operational efficiencies. Meanwhile, Mayfield et al [10] point to the dual characteristics of HR operations that may at once be regarded as a source of change, and therefore threat to the status quo within organizations, as well as being a source of improved organisational performance. A strong HR system is one which enables HR operations to create a situation and structure with little ambiguity concerning what the organisation requires in terms organisational goals and practices, as well as in terms of the exchange relationship between employer and employee, insist [13]. A HR system is deemed relevant when employees can directly link it to key goals [ibid]. The authors' view is that a good HR system maintains congruence between the goal of the management and that of the individual employee, in which case employees are motivated to pursue own goals whilst simultaneously fulfilling organisational goals. Based on the preceding review there appears to be some resonance among the authors that HR systems that may bring about shifts in the status are looked upon as 'threats' and that ambiguities and equivocations are to be avoided.

To sum up, there are a number of discernible shortcomings in the way the literature traditionally analyses HR systems:

• Since HR systems are seen to revolve around micro, individual level competencies, frequent disharmonies occur between organisational strategies and HR systems, including matters pertaining to processes, policies and technology. This is occasioned by the idea that the first is influenced by the strategy literature that puts emphasis on organisational culture, routines and organisational-wide core competencies. The HR literature, for its part, has an inclination to be at the individual employee's level and tends to raise such issues as motivation, communication, learning and flexibility.

- The analysis of HR systems fails to provide a significant connection between the traditional job-based HR approach whose main feature is job description and the skill-based approach that focuses on individual competencies, which encompass behaviour and attitude.

- The double view of HR operations in organisations: on the one hand, as a source of change that threatens the status quo, and, on the other, as a key influence on performance improvement.

- The notion that a viable HR system ought to produce minimum ambiguities in terms of organisational goals and practices.

3 Activity Theory

The initial development of activity theory evolved from the work of a number of Russian psychologists in the 1920s and 1930s, including Vygotsky and Leont'ev. Vygotsky is credited with formulating the central tenets of the theory, although his colleagues developed it further. As a theoretical approach, activity theory is concerned with the relationship between material action, mind and society, and therefore explores the links between thought, behaviour, individual actions and collective practices [14]. In that sense, it is a philosophical and multi-disciplinary approach for studying different forms of human practices, linking the individual and the social levels [15].

Vygotsky's work emphasised the concept of mediation, arguing that human activity is mediated by tools and artefacts. He contended that human action comprises an object or a purpose that it seeks to serve, a subject (person) undertaking the action, and mediating tools. According to him, human do not interact directly with their work but through mediating tools and artefacts. Mediating tools could be both physical tools and cognitive tools such as mental models. In what was translated as *Mind in Society*, [6] expounded on the idea that learning and the development of the human mind starts with experiencing action in conjunction with others and through the application of tools, rather than a process that commences within the confines of the individual's brain. This is to say that psychological process are sparked and originate from social interactions. Perhaps as a consequence of this early influence, a pervasive notion that runs through the works of different activity theorists is that the human mind is developed through interactions with the world. The original ideas of [6] about tool mediation were complemented by [7] with the structure and dynamics of human activities, who made distinctions between individual actions and collective human activities. The former, according to [ibid] are sub-sets of the latter. He did this by articulating a hierarchical relationship between activities, actions and operations. Activities are driven by a motive, actions are goal-oriented and conscious undertakings by an individual or group, and operations are taken-for-granted, unconscious processes that form part of action. In this hierarchy, the motive drives the object of the collective activity, making the collective activity the unit of analysis. Further, [ibid] stressed the division of labour between the subjects (actors), who are the individuals and groups taking part in a collective activity.

As can be seen from the work of the leading early activity theory authors, the acknowledgement of the role of cognitive tools as well as physical and material tools is central in activity theory. This was a departure from the 'Cartesian' division between body and mind so dominant in the West. Over the last few decades, several publications have contributed to activity theory, prominent among which are [8, 16, 17, 18, 19]. It is probably Engestrom who has been the most prolific in writing about and using activity theory in his studies in recent times. Among other advancements he contributed to activity theory, Engestrom introduced the issue of an interconnected whole, or 'activity system', and its components to describe human activities, in addition to some generic principles of activity theory. These are explained in the following section.

3.1   Basic Features of Activity Systems

The centre for activity theory and developmental work research at the University of Helsinki summarises the components that comprise an activity system as follows [20]:

Object. This is the problem or problem space towards which the whole activity is directed in order to realise anticipated as well as unanticipated outcomes. The object is partially given and partially constructed during the course of an activity. Objects are continuously being transformed during the course of activities [21]. Since it drives the whole activity system, the object is the single most important element of the system

Subject. This refers to the individual or group who are directly involved in the activity and whose point of view is considered in an analysis of the activity system. It needs to be noted that, despite a shared object, adopting the perspectives of different subjects could result in producing differing activity systems, which points to the multi-voiced and complex nature of human activities. History, prior experiences, agendas, goals, training, and position in the division of labour of the different subjects have a bearing on the way they conceive of the object.

Tools and Artefacts. The subjects or actors' work is mediated by tools and artefacts as well as social mediators (rules, norms, and procedures), as they do not interact directly with the object of their activity to produce outcomes. Mediating between the subject and object are tools and artefacts, including language. Where tools and artefacts mediate between the subject and the object of his activity, rules mediate between the subject and the community, and the division of labour mediates between the community and the object [8, 14].

Community. This is the group that the actors or subjects identify with, be they people from within the same organisation or outside. If an individual is actively involved in particular actions, then he is the subject in that particular activity. Otherwise, that person is a member of the wider community.

Rules. Rules mediate between the subject and community. Rules could either be formal and explicit procedures, including policies and other regulations, or informal norms and values. Rules give general guidelines and directions, both directly and

indirectly. Rules are part of what is regarded as social mediators, together with the division of labour.

Division of Labour. This refers to the tasks, roles, and power structures within organisational activity systems. The division of labour mediates between the community and the object of its activity. As with the rules above, they are part of the social mediators. Figure 1 below depicts the complete model of human activity systems based on [8].
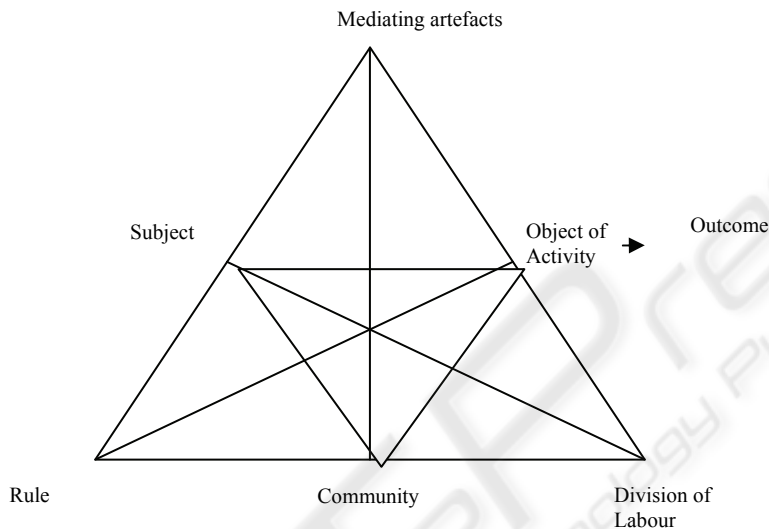

Fig. 1. A model of human activity systems [8].

The defining principles of activity theory have been synthesised by [19] as: the activity as the unit of analysis; plurality in viewpoints and interpretations or 'multi-voicedness'; historicity; the role of contradictions as sources of change; and, possibilities for transformation within activity systems. The first principle is that the *unit of analysis* is taken to be the object-oriented and artefact-mediated *activity system*. The activity system is mediated by tools as well as social mediators such as rules and norms. The activity system is not seen as isolated and stand-alone entity but as being in a network of other activity systems. Each activity system has an object as an underlying motive that gives it its thrust. With a common object, the different components of the system form an integrated if tension-filled phenomenon that brings together the subjects (actors), rules, division of labour, tools and artefacts. This accords a systemic perspective to the analysis of organisations and other work activities. The second principle is the m*ulti-voiced* nature of activity systems since they incorporate a community of multiple points of views, interests, and agendas, owing to divergent histories and experiences. Each individual in the activity system gets a different interpretation of the object based on his history, division of labour, training and experience, making it multi-voiced [22]. In a scenario with networks of interacting activity systems, multi-voicedness is multiplied. *Historicity* forms the third principle and implies that, as activity systems evolve over long time, their analysis

need to be based on history. By looking back in their historical developmental trajectory, the problems and potentials of activity systems can be understood. The fourth principle is the centrality of *contradictions*. These are historically accumulated structural misalignments within and between activity systems. Activity theory sees contradictions as integral part of human activities. A distinction is made between contradictions and common disturbances and discrepancies. Disturbances are those visible and everyday tensions or ruptures that are easily identifiable while contradictions are historical and systemic, making them difficult to observe as they lurk underneath the surface. When aggravated, contradictions prompt attempts at resolving them which in turn lead to development and change. Thus, they are not to be seen simply as distractions and threat but also as opportunities for improvement. The fifth principle revolves around the possibility of *transformations* within activity systems. Transformations happen when an individual's or a group's questioning of the state of affairs in an activity system escalates into a collective and collaborative effort of the whole community, resulting in wide changes. From the perspective of [19:137], "an expansive transformation is accomplished when the object and motive of the activity are re-conceptualized to embrace a radically wider horizon of possibilities than in the previous mode of activity." In practical terms, it is in the process of reconciling disparate conceptions of the object, rules, and tasks that learning (competency development) occurs.

3.2 Potential Activity Theory Contributions to HR Systems

The persistence of the dominant HR literature to create demarcation between the strategy of the organisation and the individual level may be resolved by activity theory's conception of an object-oriented activity system. Viewing the HR system as an activity system implies that the individual (subject) is an integral member of the system and the activity theoretical analysis provides for a possibility to zoom in on any of the six elements (corners) of the activity system. Gradually, the analysis can take a system-wide view and investigate the attainment of the overarching outcomes desired. Whilst providing for the collective view of the system, the concept of activity systems as the embodied contexts in which human beings work inculcates the goals and needs, both conscious and latent, rules and norms, tools and artefacts, division of labour, and the community of practice. The collective object may not be interpreted in the same way by all the participants in the activity system. Indeed, it may only give a general direction as to what a group of people's problem space might be or what their work entails without being precise as to the specifics of the activity. As such, people's interpretations as to what the object of their work is could vary, as objects continually evolve and get re-constructed. Through these continuous modifications and re-alignments between the different parts of the activity system in trying to construct and achieve the object, the division between the macro (strategic) and micro (individual or group) levels is mitigated.

Traditional analyses of HR systems have failed to account for the connection between the job-based HR approach that relies on job descriptions and the skill-based approach which emphasises employee competencies. The notion of a flexible but interconnected and objected-oriented activity system, mediated by tools and cultural

artefacts, and that incorporates a community of professionals, has the potential to integrate the job-based and skill-based approaches. In the language of activity theory, the task-based approach demonstrates a division of labour whereas the skill-based approach revolves around the actors (subjects) doing the job and their competencies. By viewing it as a flexible activity system where disturbances and contradictions are constantly resolved, any mismatch is handled and both approaches are accommodated. For instance, any skill shortages on the part of the subjects or their wider community of professionals is attended to while any inadequacies and concerns in the division of labour are tackled. Since power structures, tasks, roles, and functional areas of the system all come under the division of labour, it mediates the community of practice and their object of activity. Similarly, employee attitudes and mental models are included in the mediating artefacts and tools while job procedures, guidelines, and norms are all within the rules.

Applying the prism of activity theory to HR systems also challenges the tendency by HR analysts to look for stable and predictable situations, where ambiguities are either non-existent or minimal. In contrast to mainstream HR analysis, activity theory looks upon tensions and disturbances as triggers for learning, innovation and knowledge creation. By virtue of being multi-voiced and eclectic with each component having its own history and individuals having varying backgrounds, agendas, and inclinations, activity theory considers human activities as being rife with breakdowns and disco-ordinations. As it relates to HR systems, this implies a significant shift in perspective, for contradictions and paradoxes are regarded as intrinsic features of human activities. This opens up opportunities as they will cease to be frowned upon as threats having adverse effects on the status quo. As the subjects or actors engage in the process of sense-making about the tensions and contradictions in the system, new objects are constructed or existing ones re-configured, the use of tools reflected on, and, professional as well as social identities are re-evaluated, including tasks and roles. Table 1 below shows a summary of possible contributions of activity theory constructs to HR systems.

Table 1. Summary of HR literature gaps and potential activity theory contributions.

HR systems analysis gaps	Activity theory contributions
Disharmonies between the wider organisational strategies and the individual-oriented HR systems, owing to the respective influences of the strategy and HR literatures.	Object-oriented activity system handles this demarcation, as it incorporates the macro and micro in a single activity system, thereby also covering the motivations and dispositions of the subject. Also activity theory is an eclectic mix of disciplines (anthropology, psychology, education, etc), which makes it pluralist and multi-perspective.

Table 1. Summary of HR literature gaps and potential activity theory contributions (cont.).

HR systems analysis gaps	Activity theory contributions
The analysis of HR systems does not show substantial connections between the traditional job-based HR approach (job description) and skill-based approach (individual competencies such as behaviour and attitude.	Activity theory, with its concept of object-oriented activity system that incorporates the six elements, integrates the two perspectives. In activity theoretical terms, the task-based approach demonstrates a division of labour while the skill-based is aligned with the subject. Viewing it as a flexible system where disturbances and contradictions are constantly resolved, any mismatch is handled and both approaches are accommodated. Any skill requirement is attended to while any inadequacies in the division of labour are tackled. Employee attitudes and mental models are included in the mediating artefacts and tools, while job procedures are within the rules. Whether using job-description or skill requirement as a guideline, activity theory as an interpretive framework provides a dual vision: zooming in on each component of the system (e.g. the subject's attitudes, motivation, agenda, etc) and the wider system whose efficacy hinges on the achievement of the object.
The double view of HR operations in organisations: on the one hand, as a source of change that threatens the status quo, and, on the other, as a key influence on performance improvement.	Activity theory conceives of mismatches, tensions, contradictions, and paradoxes not only as threats, but also as openings for learning and improvement [23]. Also, from activity theoretical standpoint, the object (purpose, essence) is not clear-cut from the outset, but keeps evolving as people engage in common activities mediated by tools such as technology and language. Again this could be the basis for a re-interpretation of HR systems using a different theoretical tradition such as activity theory.

4 Conclusions

This paper sought to conceptualise HR systems using activity theoretical constructs and so doing attempt to identify potentials contributions. The extant literature in the traditional HR approaches was first reviewed and a number of inconsistencies were highlighted, including the apparent disharmony occasioned by the influences of the strategy literature which stresses organisational level analysis and the HR literature which concentrates on the individual and groups. Other gaps in the HR literature touched on the inability of HR analysts to bridge the gulf between job-based approaches, and skill and competency-based approaches. Moreover, the mainstream view that HR operations are considered threats to the status quo while ate the same being seen as factors in the improvement of work activities is a paradox.

It has been argued that the activity theoretical idea of object-oriented and mediated activity systems as the units of analysis offers a viable lens to interpret the

complexities of HR systems without overlooking either the overarching strategic aims of the systems or the micro dynamics at the level of the individual or group. The systemic conception of activity systems (with their connections and relationships between different parts of the system) not only considers elements such as roles, tasks and job descriptions, but also competency development among individuals. Finally, the activity theoretical view that human activities are by their very nature complex and tension-filled, and its insistence that contradictions and efforts to resolve them could spark off learning and development is regarded as a contribution.

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