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Classification, Culture Studies, and the Experience of the Individual: Three Methods for Knowledge Discovery

Abstract: Within any culture, three methods of knowledge discovery work together to situate and evolve accepted knowledge structures. Classification operates to control chaos by introducing formal rules for organizing the subject body of knowledge. The words used, and the concepts behind those words, create an ontological structure. What is not included is excluded. Culture studies have been developing ever since the early 19th century. Instrumentation has reorganized vision and practice, and has made the reality of situated knowledge more obvious. Postmodernism’s questioning of Modernism’s consistency and preservation of broad concepts of reality has provided a fertile ground for culture studies in all disciplines. Perhaps all social interactions, even the most primitive, are situated. The third player in knowledge discovery is the individual, who works within the culture but brings unique perception to bear on every issue. The individual is the locus of mutation and creation, which, if taken up by other individuals, eventually influences practice, and then such formalized structures as classifications and standards. All three modes of discovery are vital and essential, and participate in a multidimensional and interactive evolution.

1. Introduction

The underlying protocol of classification is that a general typology is derived for the collection (set), and then individual members of the set are placed within the scheme. The act of doing this is both practical—it gets things organized, and highly sophisticated—it places individuals into relationships with other individuals and with other groups (subsets) in the set. It establishes the nature of individual and set existence (ontology) for the collection, and creates epistemic bounds on the scheme. Classification provides an overarching structure that defines the essential attributes and makes it possible to compare individual members by these attributes. Appropriately, a stabilized perspective has accompanied classification, the goal of which is the retrieval and understanding of information by unknowns in the near and distant future.

A second approach to the discovery of knowledge, culture studies, has brought a widely applied interest in examining and redescribing the traditional structures, in order to find knowledge reflected in practice. Relationships and categories are still present, but they are not necessarily the ones foregrounded historically. One approach to culture studies is clearly historical and atemporal, that of extracting a "snapshot" of practice and seeing it in retrospective context. The other way examines practice over time, with a sense that competing developments and actors have been colliding orthogonally and continually to reshape practice.

A third method, alternative to group-oriented practices like classification and culture studies, is the discovery of knowledge by the individual. Still using the tools of the culture, the individual operates alone in the moment of knowledge-making. This knowledge is the product of cognitive boundary-breaking. The impact of the individual experience has been profound on society, for it is at this level that the mutation of ideas and growth of new knowledge are first born.

Each of these ways of discovering and ordering knowledge has a substantial history of active inquiry, with a variety of views and associated literature. In this short paper, the simple aim will be merely to recognize and make comparisons between the three approaches from a
social perspective. Classification (formal representation), culture studies (analysis of practice), and individual experience (unique perception) will be compared and discussed as separate but essential components for knowledge discovery.

2. Classifications Structure Formal Knowledge Organization

Once designed, classification schemes tend to take on an existence superior to their creators. It is their nature to be impartial, objective, inclusive, and linguistically appropriate for the uses for which it has been designed. The scheme does indeed become the description of ontological reality for a limited reality. In order to relate classification to other forms of knowledge discovery, it is useful to recall the work of Emile Durkheim and Marcel Mauss, who understood that the ideas and structures of humans always come from the lived world they know:

"Logical classification is a classification of concepts....a concept is the notion of a clearly determined group of things; its limits may be marked precisely." (Durkheim and Mauss 1993, 97) But from where can the notions come, other than the experience of the world around: "It is this emotional value of notions which plays the preponderant part in the manner in which ideas are connected or separated. It is the dominant characteristic in classification." (Durkheim and Mauss 1993, 96). And further, "The pressure exerted by the group on each of its members does not permit individuals to judge freely the notions which society itself has elaborated....Thus the history of scientific classification is...the history of the stages by which this element of social affectivity has progressively weakened....They have left behind them an effect which survives and which is always present;...it is the ensemble of mental habits by virtue of which we conceive things and facts in the form of co-ordinated or hierarchized groups." (Durkheim and Mauss 1993, 97). For Durkheim and Mauss, and for this discussion, classification categories are an underlying framework, the habits and ways of looking at things that are generated in practice. In the act of designing classifications, the notions are codified.

The element in classification that could be said to distinguish it most from the other ways discussed here is terminology: the word. Classification has always been an act of superior language mastery. It concerns an arrangement of knowledge that makes it possible to represent things in a system of names (Foucault 1970, 157). Central to classification is the careful choosing of words or phrases to represent things, concepts, acts, and relationships to the group that will use the scheme. And central to the process of choosing words is the mental analysis that links entities and their features to abstract symbolic representations—words. What we call a thing is what is becomes. The process does not start with the word. But one cannot refute the power of the naming and labeling acts, if we look at the complement: what isn't named drops out of the shared known world entirely.

Classification now is the product and fulfillment of Modernity's pursuit of rational analysis, merged with concepts of progress through standardized efforts and sometimes with value-laden goals reflected in materiality. A sense of the "grand plan" for animals, plants, products or ideas can be usefully and sometimes elegantly expressed through the act of classification. From Aristotle to the Dublin Core, unity and stability of description remain important.

With unity and stability come conformity to a standard. The degree of satisfaction therein depends on two perspectives: 1) belief in the systematic reality depicted, and 2) the extent to which one is foregrounded or backgrounded in the classification's depiction of reality.

3. Culture Studies Reveal and Describe Knowledge in Practice

Having acknowledged that classification really derives from practice, it can be set aside for now. If one takes classification to be an activity that comes first, framing knowledge
in such a way that it determines what known, then one might, in contrast, describe culture studies as an activity that examines what has happened—actual practice—and the ways that practice transforms and is transformed by one's sense of the world.

Key themes in culture studies are attention and the subjectivity of vision within a practice group. As explained by Jonathan Crary (1998), these themes are far from new. The break with classical epistemology that occurred in the early 19th century—signaling full-fledged modernity—also signaled the recognition of subjective models in a number of disciplines. Essential to these was the idea of attention or attentiveness. When life was agricultural, one couldn't help but be involved, attentive to, one's natural bodily labors. Capitalism and industrialization changed that, creating products (by the labors of humans-as-repetitive-instruments—attention-numbing) that demanded unnatural attention and consumption.

Like the inclusion-exclusion issues intrinsic to classification, attention to one thing or a group of things has always meant the ignoring of other things. But attention and classification are unlike in their stability over time, due to attention's in-the-moment nature. Attention is fleeting, always, and in fact carries its own disintegration as an integral feature. Anyone who has tried staring at something, or saying a word over and over, can attest to the paradoxical experience—something focused on too long loses its meaning. Crary cites Wilhelm Wundt as a key expositor in the late 1800s of the distinction between habitual, automatic behavior (perception) and focused, critical response to a stimulus (apperception) (Crary 1998, 487), both of which we call the commodity of attention now.

At the same time that attention and modernity emerged, scientific practice using a growing number of mechanical instruments took hold as the standard. As the use of instruments for observation and calculation (focused attention) became the standard, a set of practices grew up in the natural and social sciences. Humans increasingly became a subject of their own quantified observation, a combination of pressures, rhythms, chemistries, and so on. The truth of the observed world came to depend on the instrumentation and attentive focus of the observer, operating from within a framework of established practice that was treated as stable and objective, but in fact was itself evolving because of ever-shifting attention.

Culture studies examine these practice groups. In the 20th century, versions of "science studies" have been developing and evolving since the 1950s. Gradually, the old view of creative practice is being replaced by a new one. The old view is historical and narrative: a brilliant person comes up with a theory, and creates the techniques and machines to implement the idea. A social studies view says: a bunch of people enter into relations with objects and artifacts; things happen, you can't predict what; but something will surely happen. (Ihde 1999). Andrew Pickering (1995) describes this as an interplay of accommodations and resistances. Pickering's focus in culture studies is scientific practice; but the principles he puts forward appear to be applicable to human practice in general. He has proposed a dichotomous view of these inquiries. Pickering's distinction is that culture studies are about how something is at a point in time, and that studies of practice are about how something changes in time (we might say over time). The former remains with the historical approach to knowledge description in which classification resides, what Foucault called the transformation of documents (descriptions) into monuments (things grouped together to form totalities) (Foucault 1972, 7). The latter method of culture studies, preferred by Pickering, and affirmed here, emphasizes a belief in the value of performative examination and the antidisciplinary approach: practice and society are emerging through performance and agency (Pickering 1995, 233). In one sense, he says, practice is the "work of cultural extension and transformation in time." In the other sense, the one he favors, practice relates to the specific activities, repeatable performances that are a part of daily work. In fact, the goals of that work become transformed versions of the present: "existing culture predisciplines the extended temporality of human intentionality." (Pickering 1995, 19) Using metaphors and models to
characterize reality lays the very path on which reality will proceed. Echoes of Durkheim! Foucault knew this too. Regarding our groupings and types of discourse, he noted that they are, "always themselves reflexive categories, principles of classification, normative rules, institutionalized types...that deserve to be analyzed...they are not intrinsic, authochthonous, and universally characterized characteristics." (Foucault 1972, 22).

Is everything constructed? How one feels about a theory of socially constructed reality depends on how much one has enjoyed the benefits of the entrenched and unexamined dominant perspective. Donna Haraway has promoted the acknowledgement of situated perspectives successfully and aggressively. Male practices, female practices, native people practices, scientific practices—all have situated truth, but nothing more universal. "Objectivity turns out to be about particular and specific embodiment, and definitely not about the false vision promising transcendence of all limits and responsibility. The moral is simple: only partial perspective promises objective vision." (Haraway 1998, 192)

To pursue the line of knowledge discovery through culture studies is to shake the underpinnings of secure beliefs that have been the base for traditional analysis of historical knowledge and its evolution. In doing so, new knowledge of things previously unquestioned is revealed.

4. The Individual Experience Interprets The Moment

Group-based models have been discussed. Classification is the social organization of words and concepts. Culture studies is the study of social practice. What is the individual lie in this discussion and in the discovery of knowledge?

The individual lies within the same social world of language and practice as classifications and practice groups. The individual is the smallest element of action, the essential element, in all these models. All personal knowledge is built on the individual's experiences with the surrounding classifications and practices. But only the individual has the freedom, as an autonomous and private entity, to play with the understood systems, to try out new orderings, to react, to exclude canonical parts, to deconstruct, to merge, to reject—all on short notice. In the actions of the individual lie the creative seeds of inevitable and essential creative change.

We study the exceptional few for their particular achievements. But this individual power is not applicable only to the creativity of a few exceptional people. That misses the point. Every person is making these creative interpretive adjustments to world-view every day. From the influence of individual interpretations group practice changes, slowly, and then are reflected when classifications are created. "The creative individual is, in a sense, complementary to the society in which he lives, rather than as a soloist in a concerto. Both the basic ideas of science and the key inventions of mankind have generally been conceived in the mind of individuals, while the effort to gain the data on which the ideas and inventions have been based, and the subsequent effort to turn them to good account, have required the contributions of many besides the inventor and originator of ideas, So the individual and the community are necessary to one another..." (Everedd 1997, 2).

It is the inevitable duty and opportunity of the individual to use and modify the conventions of group knowledge. Every art and science movement shows how. There were so many examples in the early 20th century. The Dadaists did it well, and still are exemplary in their use of contradiction and confusion and caprice to shake complacency and ask the question "what next?" (Richter 1964, 9) Alongside this were similar revolutions in literature and philosophy. Ludwig Wittgenstein challenged his philosopher-colleagues to look at their community of practice and detached objectivity, and instead to do philosophy within their lived worlds and language frames. Before him (and influencing him), Karl Kraus deconstructed language and meaning, rearranged it, and made it politically powerful (Savickey 1999). Albert Einstein did the same for physics, Pablo Picasso for art, James Joyce
for fiction, Arnold Schoenberg for music, and Gertrude Stein for poetry and art patronage. It is not possible to list many examples here; these names have been chosen because they symbolize so effectively and familiarly the contrarian and creative spirit (and because it is easier to look back at recognized innovators than to see them clearly in the present.) Each one shares the experience of a break with continuity that is the key feature of "modern" (post-18th century, 20th century, or post-modern) life (Everdell 1997).

5. Conclusion: The Word, The Act, and The Imagination

Three modes of knowledge discovery have long coexisted.

Classification is an ancient art, but is still vital and exciting now that it is being reconceived in terms of revised classics such as Dewey and LC, faceted classifications, the Universal Decimal System, and metadata for electronic and other media formats. Nevertheless, and especially if one considers classification and standardization together, classification is a resource-consuming and boundary-making exercise (Bowker and Star 1999).

Cultural studies are associated with the end of modernity, and post-modernity, in the 20th century. However, there are compelling arguments seating the roots of culture studies and situated practices in the early 18th century, preceding or paralleling the great modern classification efforts. Culture studies emphasize the socially-derived nature of virtually all human action and experience. They examines the boundaries created by classification, standardization, and applied practice. This is the newest of the three forms of knowledge discovery discussed here.

The interpretation of the individual, even the very idea of the individual, and the need for unique perception as a vital form of discovery, is an idea that lies in early Western European societal evolution. It is one of the many gifts of Greek and Roman culture, embodied in the respect for historical, philosophical, and dramatic depiction of human experience. It was reemphasized in the Renaissance, and fueled from that time forward by the development of individual expression enabled by printing and now electronic technologies. Individual knowledge creation comes about when the individual uses society's knowledge. Mutation and creativity occur here.

Table 1. shows in tabular form the multidimensional issues and comparative positions for the three modes of knowledge discovery. In Figure 1., the sequential and non-sequential interplay of modes is illustrated.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Classification</th>
<th>Culture Studies</th>
<th>Individual Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perspective on Time</td>
<td>future</td>
<td>past and present</td>
<td>momentary</td>
</tr>
<tr>
<td>Structural Element</td>
<td>formal terminology</td>
<td>situated group practice</td>
<td>acute attention</td>
</tr>
<tr>
<td>Point of Origin</td>
<td>group or individual in social setting</td>
<td>group in social setting</td>
<td>individual in social setting</td>
</tr>
<tr>
<td>Range of Effect</td>
<td>broad</td>
<td>narrow to broad</td>
<td>singular (initially)</td>
</tr>
<tr>
<td>Actors/Users</td>
<td>unknown</td>
<td>known in general</td>
<td>known</td>
</tr>
<tr>
<td>Rate of Reaction</td>
<td>slow</td>
<td>slow</td>
<td>fast</td>
</tr>
<tr>
<td>Boundary-making</td>
<td>high</td>
<td>high-medium</td>
<td>boundary-breaking</td>
</tr>
<tr>
<td>Conformity</td>
<td>high</td>
<td>medium to high</td>
<td>low</td>
</tr>
<tr>
<td>Effective Tool</td>
<td>word</td>
<td>Practice</td>
<td>apperception</td>
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Table 1. Key features of Classification, Culture Studies, and Individual Experience

What we really have with the three forms is an enduring n-dimensional mix of features of knowledge discovery that are essential to human creation and knowledge growth. Without classification we have chaos, without culture studies we don't know where we've been and where we are headed, and without the individual to react to, even rail against, group
postures, we squelch essential creative change at its roots. Is there a message or moral? Yes, and it is that it takes all three forms of knowledge discovery, and it takes all kinds of people, to make and keep in precarious balance an interesting and growing intellectual world.

![Image](image_url)

**Figure 1. Sequential and non-sequential paths of interplay of knowledge discovery.**

**References**
Ihde, Don. 1999. Lecture comments in Philosophy of Technology seminar at the State University of New York at Stony Brook, September 8, 1999.