1. How can we grasp a process as a whole?

We are often told that we have to grasp complex processes ‘as a whole’. But what does this mean and how is it possible?

The first thing that this does not mean is that you have to think of everything, that you should draw up a list of all the possible issues – the economy, technology, the law, the environment, and so on. Thinking of everything is the exact opposite of grasping something as a whole, as a Gestalt.

2. Johann Wolfgang von Goethe

Goethe was the 18th/19th century poet and scientist who gave the ordinary German word, Gestalt, its special meaning, and dedicated a large part of his life to learning how to understand processes as Gestalten – as integral wholes.

In his day, Newtonian physics was the model for all the sciences including the life sciences. Newton had accounted for the movement of the planets in a single law and all the sciences at his time sought some kind of force or law of this kind to achieve a holistic grasp of various processes.

Goethe rejected Newton’s method of proposing some force or law which controlled the complex whole from beyond the horizon of phenomena; forces are in principle inaccessible to the senses. Newton’s idea of acceleration being caused by gravity simply shifted the problem from understanding a form of motion sensuously given to us, to understanding an invisible force, known only through its expression for which it is supposed to be the explanation.

Understanding the plant and animal worlds was a major preoccupation of science in Goethe’s day, but he died almost 30 years before the publication of Darwin’s theory of evolution by natural selection. In his day Linnaeus’s taxonomy was how people understood the natural world, by arranging and collecting things together according to common attributes. But Goethe also rejected this approach to grasping of a complex whole. Categorising something was no substitute for understanding it.

* See “Goethe, Hegel and Marx” for extended argument.
3. The Archetypal Phenomenon

Goethe’s solution to the problem of how to conceive of the whole was the *Urphänomen* – or archetypal phenomenon. The *Urphänomen* was the simplest, in-principle empirically observable thing or relation which displays all the essential properties of a whole complex process – such as an organism or a social phenomenon. Despite all his study of natural forms and their development, Goethe was not able to solve the problem of identifying an *Urphänomen*. Goethe died in 1832, and it was only in 1838 that microscopes became sufficiently powerful so that the cell could be recognised as the basic unit of all living organisms, and that all the essential characteristics of a living creature were already present in the cell. In the domain of biology, the cell was the *Urphänomen* which Goethe had been searching for.

**Bildungsroman**

Goethe also insisted that Nature and every one of its creatures had to be understood as a process, as a process of development; we could make sense of an individual person or phenomenon only by knowing it as moment in a process of development.

Goethe invented the *Bildungsroman*, a form of novel which represents the personal development of the central character. Goethe believed that understanding any complex process meant grasping it as a process of development, not simply as having this or that characteristic which distinguished it from others. Every organism is just a moment in a process of development, and this is the second advice Goethe gave us on how to grasp things as a whole – take them as processes of development not as separate types. It was almost 37 years after Goethe’s death that Darwin revealed the principle which unified our understanding of the natural world, replacing Linnaeus’s taxonomy with a phylogenesis based on natural selection. Goethe knew nothing about natural selection, but Darwin’s discovery together with the cell theory, laid the basis for biology as a unified science, giving striking form to Goethe’s advice to understand creatures, not as types, but as moments in a process of development.

**Human beings are part of Nature**

Finally, Goethe reminded us: we are part of Nature. Things have to be understood in their context, and we should be humble about our ability to shape and control nature. His most famous work – *Faust* begins with the tale of a man who sells himself to the devil in exchange for unlimited power and knowledge, and in Part Two we see Faust insanely trying to hold back the ocean; eventually he brings catastrophe down on himself and the whole of Europe. This is the future which Goethe feared as a result of the arrogance of analytical science.

Goethe was flying directly in the face of the science of his own time, and while he was worshiped for his poetry and his novels, his philosophy of science was alas not taken seriously. But we are living through the calamity anticipated by Goethe.
4. Hegel and Marx

The philosopher, Hegel, gave Goethe’s idea of the Urphänomen and development a logical form. In Hegel’s Logic the role of the cell is played by the abstract concept, and Hegel represented in logical form the movement from Being through the concept to a concrete conception of Nature.

Commodity as unit of bourgeois society

Karl Marx restored Goethe’s orientation to observation and practice rather than logic as it was with Hegel, and demonstrated his version of holistic science in a study of capitalist political economy.

Marx wanted to understand capitalism as a whole. He worked over the history of political economy for about 15 years before coming to the conclusion that the economic germ cell of bourgeois society was the commodity relation, the act of exchanging products of labour.

Marx himself used the term ‘cell’ marking his debt to Goethe, and he emphasised his difference from Hegel by taking as his starting point, not an abstract concept such as ‘value’, but the simple, empirically given form of value, ‘the commodity’. People exchanging commodities is an empirically observable action that anyone can understand viscerally, from personal experience; not some abstraction.

5. Basic Units – Commodity and Capital

To highlight the continuity between Goethe and Marx allow me to bring out the following parallels:

• The basic unit of any living organism is its cell, what Goethe called the Urphänomen, the simplest entity containing everything essential to the whole organism.

• For Marx, the basic unit of bourgeois society is a commodity exchange and was the starting point for analysis.

On the other hand:

• The living world is not just made up of cells. These cells exist only as the building blocks of organisms. It is by understanding the evolutionary development of organisms, that we come to understand the living world.

• For Marx, capitalism, is not made up of just commodity exchanges. The creatures which inhabit the market are the aggregations of interactions which we recognise as units of capital – companies, and beyond the first three chapters of Capital, it is these units whose development is the focus of analysis.
So using Goethe’s idea, and limiting himself strictly to what could be observed, and avoiding the flights of logical fancy to which Hegel was prone, Marx was able to grasp the nature and development of capitalism as a whole – by beginning from its basic cell.

**A whole is not everything**

However, Marx’s book does not explain *everything* about the world he lived in, it does not explain many of the injustices that had propelled the young Marx into political activity, such as censorship and political repression. But it explained what was essential and most characteristic of the world he saw before him – capital. If he had set out to try to understand everything he certainly would never have begun with exchange of commodities – something hardly ever seen in modern capitalism.

6. **Vygotsky**

Lev Vygotsky was a Psychologist who got the idea of the ‘cell’ from reading Marx’s *Capital* and used it to create a general Psychology. Living in Russia in the immediate wake of the Revolution, Vygotsky died young, with only a decade of systematic work in Psychology behind him, but during this time he used the idea of the cell, or what he referred to as the ‘unit of analysis’, to create the foundations for four different domains of Psychology. Vygotsky’s ideas were further developed by the Activity Theorists, though not always entirely successfully. What I would like to do now is present you with an approach to studying human social life which draws on this whole tradition of thinking from Goethe to Hegel to Marx to Vygotsky and Activity Theory.

**Actions as the basic unit of human social life.**

One of the insights we can draw from Vygotsky’s work is that the cell of human life is the *artifact-mediated action*. An artifact is some material object which has been produced by human labor and is used in human activity. Material culture is made up of artifacts. Examples of artifact-mediated actions would be speech, driving a car, sending an email message or waving your hand to someone – the human *hand* is itself an artifact, the product of human labor over millennia!

An action is an interaction between two people mediated by a cultural artifact. Digging a hole with a shovel may appear to be a simple relation between a person and Nature, but the digging of the hole is always directed at some social purpose, a purpose for which shovels are manufactured.

Note also that the artifact a person uses in their action towards another person is always a material product taken from their culture, be that a sign such as a word or a computer or other technical tool. So interactions between people always have *culture in the middle*. Marx’s study of bourgeois society in terms of exchanging commodities is an example of this.
This gives us a foundation on which to build, a foundation which is perfectly clear and empirically observable, and out of which all the phenomena of human life can be unfolded. The interactions in which human beings interact with one another using tools and signs provided by the culture – these are the smallest units of analysis containing everything that is essential to human life.

7. Molar Units

But just as the cell theory was not enough to make a foundation for biology which has long since transcended the world of single-cell organisms, just as economic life long since transcended the stage of simple commodity exchange, we need a larger unit, a molar unit, which arises out of a mass of these basic units and makes up the zoology and botany on the landscape of human social life. For biology this was the organism; for the economics of bourgeois society it was the unit of capital, otherwise known as the company.

Concepts

In his original formulation of this problem for Psychology, Vygotsky saw that an individual’s actions are oriented by the concept of the object motivating the action. But it is important to understand how Vygotsky understood concepts. He saw concepts as systems of actions mediated by artifacts, including words. As such concepts were observable forms of activity which people acquired at first in the family environment later in their professional life and so on as an adult. So with Vygotsky, the molar units were concepts. In this way we can see the activity in a social or cultural formation in terms of an aggregate of concepts, manifested in overlapping and interconnected systems of activity. Note that, in this view, concepts are also empirically observable entities.

To tell the truth, Vygotsky’s work was not well understood and the Activity Theorists who built on Vygotsky’s work missed this idea that concepts were systems of activity. So I want to introduce my proposal for a holistic approach to social theory, an approach which really does allow us to grasp social problems as a whole.

8. Project as a unit of human social life.

The Activity Theorists who built on Vygotsky’s work took as the molar unit, Activities or sometimes, ‘systems of activity’, but I am going to be more specific, the germ cell or unit of social life is the ‘collaborative project’ or project for short.

All the actions which we find in the social activity of some society are motivated by some project and all the forms of interaction and association we find in social life are projects at one of another stage of their life-cycle.
**Actions, not individuals**

The individual seems to be the obvious entity to take as one’s basic unit of analysis, but setting out from the individual as the basic unit is tied to individualism. One and the same individual acts quite differently in different situations and in general we’d have a far better chance of understanding the entire social formation first, and then starting from that basis, to understand the individual citizens.

No, we have to go right down to the single artifact-mediated action to find our basic unit of analysis of which collaborative projects are composed. Vygotsky showed that the single artifact-mediated action provides a sound basis for understanding the psychology of individuals and via concepts, the culture of which they are a part.

**Projects, not social groups**

Sociologists usually take social groups of one kind or another as their molar unit. You will be familiar with the kind of theory this produces: you have a list of attributes, like gender, age, income, nationality and so on, and then you group people together according to these attributes. This allows you to study social behavior and you come up with statistical correlations. And you only ever get vague correlations because this kind of study does not allow you to understand anything. It is the sociological equivalent of Linnaeus’s taxonomy.

The world we live in and its various social groups is made; it makes itself, and we all participate in that process. We do not have individuals on one side and great social processes – beyond our control – on the other. We make and remake the world – in fact the world only functions at all because we are making and remaking it all the time. But we do not make it by ourselves or under conditions of our own choosing. We make it together with others, by collaborating with others, by participating in collaborative projects. The world we live in is an aggregate of collaborative projects, with various relations between them and at various stages in a life-cycle, pursuing various objects which we represent in language.

We have to make a study of these collaborative projects because all the phenomena we find in the world around us are projects at one or another stage of their life-cycle and in various combinations and relations with one another. Collaborative projects are the germ cells of human social life.

- Projects are aggregates of actions and nothing else.
- Different people participate in a project at different times, but their actions aggregate together in the project as individuals come and go.
- A project is characterized by its object, which also forms its self-concept – how it sees itself.
- In general people join projects, rather than launch them, though every project is launched at some point.
- Projects are part of the objective world, not something in the mind of individuals.

9. **The Life-cycle of projects**

Projects have a life-cycle. In the beginning there are just a number of people in some shared social situation, and that situation turns out to be problematic or offers some opportunity. We do not have a project at this point – the projects exists ‘in itself’ so to speak.
But then someone introduces a concept for this situation which not only identifies it, but negates it, and the affected people begin to act together in line with that concept. One and the same situation can spawn different projects, because the same situation can be conceptualized in different ways. The project then becomes a social movement.

As time goes on, the social movement experiences successes and setbacks, it learns and it changes its concept of what it is fighting for. Projects are learning processes. Their concept undergoes change. Sometimes that involves disappointment, sometimes there is a break-through, but social movements only have a finite life span. They either succeed or they exhaust themselves and fade away.

But to the extent that they succeed, they transform themselves into institutions. The former activists find themselves in government jobs implementing some regulatory function, or in business perhaps. The social movement gets demobilized, but its aims become institutionalized. Institutions maintain themselves by paying salaries and offering inducements, and people may forget why they are there. But an institution never entirely loses its self-concept and in an emergency or as the result of intervention by a new social movement, institutions often wake up, so to speak, and recover their youthful energy.

The final stage for a project is when their concept simply enters the language and becomes a part of everyday life, and people forget the historical struggle that lies behind what they now take for granted.

10. Relations between Projects

Projects make up the fabric of social life, but the threads are woven together in a number of ways which it is important to know about.

Projects may enter into collaboration with one another where they are both working on the same material, like two projects both aiming to run the government according to one or another concept. Collaboration is always a mixture of cooperation and conflict. So when two projects collaborate with one another they may form a collaborative project between them, and there can also be strong internal tensions as a result of differences in their self-concepts.

Limiting Cases of collaboration

But we need to know about some limiting cases – non-collaborative collaboration.

The most widespread relation between projects is instrumentalism, or exchange. Where one project supports the other in exchange for something in return. The classic example is where a company pays a worker wages in exchange for their contribution to their project. The mutual instrumentalism is generally the subject of negotiation.

With or without negotiation, sometimes a project simply colonizes another project in a kind of master-servant relation, extinguishing the self-consciousness of the colonized project. On the other hand, sometimes a project voluntarily places itself at the disposal
of another out of **solidarity**, and in this way strengthens the self-consciousness of both projects.

So these are the possible forms of interaction between projects: collaboration as such, including both cooperation and conflict, exchange, colonization and solidarity.

11. Ethical paradigms of projects

Social and political life is all about making collective decisions and participating in carrying out these decisions, and all this is possible only in and through collaborative projects. Decision making in projects can be quite complex, but there are three *paradigms* reflecting the ethical self-consciousness of projects. Understanding these paradigms is the first step to understanding the ethical foundations of a project and how it makes its decisions and elaborates its self-concept.

The first paradigm of collective decision making is **Counsel**. In Counsel one person – the Chief or the Director or whatever – bears moral responsibility for making the decision, but before announcing the decision the Chief must consult everyone in the group. But once the Chief has announced the decision there is no dissent.

The second paradigm is **Majority**. Here all the participants are equal and have an equal say in the decision. This equality is recognized in the principle of one vote one value. Minorities are tolerated, but they are expected to solidarise with the Majority.

The third paradigm is **Consensus**. Here the participants are not ‘equal’, because they are incommensurable, so there can be no question of voting. A decision is made only when everyone is in agreement, and the ethic is one of inclusion because in these projects each other’s participation is the only asset everyone has.

No one of these paradigms is any more valid than another, but each has strong roots in a particular tradition and is a valid means of learning and making decisions together.

12. Conclusion

To sum up. To understand a situation or process as a whole means to find that simplest action or relation which characterizes the whole, and work with that germ cell. You can understand the germ cell because it is simple, and you can experience it viscerally and understand it with your own hands and senses.

I have suggested that for general social theory your units should be *artifact-mediated actions* and *collaborative projects*. We all have experience in collaborative projects. We are raised in one at home and all our life experiences come by participating in collaborative projects. So reflect on these experiences, and learn about collaborative projects, and you’ll see that the social world is nothing but these collaborative projects. And you can understand them.

Having a life project is after all the only thing that gives meaning to your life, and it’s only through collaborative projects that you’re going to *change the world*. 