Interpretation or Puzzle Solving?

On the Debate between Kuhn and Taylor about the Proper Demarcation Criterion between the Natural and the Human Sciences

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The Actors

- **Charles Taylor (1931 - )** – Canadian philosopher. Among the first to introduce multiculturalism to political philosophy. In PSS, Taylor represents the interpretive stream, according to which the social sciences should interpret human behaviour, and not explore an allegedly objective reality like the natural sciences.

- **Thomas Kuhn (1922 - 1996)** – The most important philosopher of science of the 20th century. His *Structure of Scientific Revolutions* revolutionized the philosophy of science. There he argues that science advances trough revolutions, that different paradigms are incommensurable, and that social and cultural factors participate in the process of deciding between rival theories.

- **Harold Kincaid (1952 - )** – Philosopher of the social sciences. Represents the most articulated objection nowadays to Taylor’s interpretivism. Kincaid believes that the social sciences should use the same methods and forms of explanations as the natural sciences, and that good explanation in the social sciences need not involve reduction to the level of the individual.

Taylor and the Hermeneutical Circle

- In the human sciences, the object of study is human behaviour. Human behaviour is a semiotic object. It can be read and interpreted as text, and it has meaning embedded in it.

- The meaning of the objects of study always exists in it in an unclear, confused, incoherent and fragmentary fashion.

- The purpose of interpretation is to present this meaning in a clear, systematic and coherent fashion.

- In other words, in the human sciences, the purpose is interpreting the meaning which exists in human behaviour in a clear and lucid form.

- However, in order to interpret something, we need to use concepts from another already existing system of meanings. Interpretation is in principle an infinite process. Taylor calls this cycle of infinite interpretations the hermeneutical circle.

  ⇒ Suppose I see a woman waving her hand at the train station, and I wonder what this means. Somebody will explain to me that this means the same as saying “goodbye”. Suppose I do not know the meaning of ‘goodbye’, then his person will explain to me that this is the word which is said in the situation of parting, etc.

- Interpretation is a cyclic process, and every link in the interpretive chain may be itself subject to interpretation in a different context.

- The process of interpretation ends with success when understanding is reached, i.e. when the reading or interpretation is perceived as persuasive.

- In addition, since the meaning presents itself in the object of study in a confused and partial way, there may be more than one possible interpretation of the same phenomenon.

- Therefore we can never reach certainty, i.e. one uniquely true interpretation which will not be subject to any more interpretations.
In order to break the hermeneutical circle and achieve certainty, we need to establish our interpretation on notions that are so self-evident to everybody, such that everybody will instantaneously understand them in the exact same way without any need for further interpretation.

The rationalist tradition tried to establish such certainty on a set of human experiences and feelings so fundamental, that they will be understood by all human beings from every culture or background in the exact same way. Taylor believes that such a system does not exist.

The empiricist tradition tried to establish such a system on simple undisputable sensory experiences, so that it will be possible to reduce every meaningful claim to a set of propositions about these basic sensory data.

Taylor calls this sort of data **brute data**.

Taylor argues that brute data necessarily do not exist in the human sciences.

In contrast, Taylor argues that a plausible model of the natural science may be constructed around the notion of brute data.

Therefore, the natural sciences may escape the hermeneutical circle, while the human sciences cannot.

Therefore, according to Taylor, interpretation is a successful demarcation criterion between the natural and the human sciences.

**Kuhn’s Criticism**

Kuhn rejects the existence of brute data in the natural sciences, i.e. Kuhn argues that in the natural sciences, as well as in the human sciences, one cannot clearly distinguish the level of theory from the level of empirical data. I recognize two arguments Kuhn presents against the existence of brute data:

- The argument from nominalism – Every theory uses different categories and taxonomies. There exists no natural taxonomy of the physical reality, which does not depend on a theoretical stance.
  
  ⇒ For instance, in ancient Greece, the rainbow and the Milky Way were classified as belonging to the same category of phenomena.

- The argument from cognition – It may be argued against the argument from nominalism that different taxonomies of the world are merely different interpretations of the same brute data. In response, Kuhn argues that there is no perception of the physical world which does not already depend of a theoretical stance. A paradigm influences scientists’ sensory perception. Therefore, the sensory perception of the physical world already includes a dimension of interpretation.
  
  ⇒ For instance, in the middle ages, the dominant paradigm in astronomy talked about immutable heavens. Therefore, European astronomers did not notice the appearance of new heavenly bodies. In contrast, looking at the same skies, Chinese astronomers, whose paradigm allowed changes in heavens, reported appearance of new heavenly bodies.

- In addition, Kuhn argues that interpretation plays a central role in the natural sciences as well. According to Kuhn, interpretation is the processes in which puzzle solvers in the period of normal science interpret experimental data according to tools of the paradigm.

- Therefore, Kuhn argues that interpretation cannot serve as a demarcation criterion between the human and the natural sciences.

- As an alternative, Kuhn suggests puzzle solving as a demarcation criterion between the natural and the human sciences.
Taylor’s Notion of Experimental Meaning

- I argue that although Kuhn’s criticism is correct, Taylor still provide us with a good base for a demarcation criterion between the human and the natural sciences. In this section I will explain why.

- Taylor identifies three articulations of meaning:
  - Meaning is of something – The meaning exists in the object of study, but is also distinguishable from it. Interpretation is the process of distinguishing something from its meaning.
    ⇒ For example, in political science, a group of people holding signs and yelling slogans is interpreted as a political demonstration. In astronomy, bright sparkling lights in the night are interpreted as distant stars and galaxies.
  - Meaning is in a field – Meaning is defined only in relation to other meanings, which, in turn, are defined in relation to other meanings.
    ⇒ For example, the meaning of the word “shame” in a certain culture is defined in relation to certain situations that trigger the emotion shame. In addition, it is contrastive to the meaning of the word “pride”.
    ⇒ The notion of meaning in a field is similar to Kuhn’s holistic view of the paradigm. Kuhn argues that theoretical concepts are always introduced as a whole through the relations that exist between them, and their individual meanings are interdependent. (Hence his argument of incommensurability.).
  - Meaning is for a subject – Interpretation is always of someone’s own interpretation.
    ⇒ For example, a patient tells a psychoanalyst a dream. The psychoanalyst interprets the dream using the theoretical tools of psychology.

- This last articulation of meaning is not applicable to the natural sciences.
- In other words, I argue that in contrast to the natural sciences, in the human sciences the object of study is always personified.
- From the fact that the source of interpretation in the human sciences is someone’s own interpretation, it stems that the human sciences will always use notions that people use to understand their own life, such as will, emotion, purpose, morality, etc.
- Therefore, in spite of Kuhn’s criticism, personified interpretation is a good demarcation criterion between the natural and the human sciences.

Laws in the Social Sciences as Second Order Interpretations

- Kincaid argues that interpretation is relevant to some branches of the social sciences, such as anthropology and psychoanalysis, but not to other branches such as economics, which are about identifying causal relations between different factors.
- If Kincaid is right, interpretation cannot serve as a demarcation criterion between the social and the natural sciences.
- Kincaid identifies three arguments against the view that interpretation excludes causal explanation and responds to them:
  - The argument from free will – People act according to their free will, and therefore their behaviour is unpredictable. But – people have a limited range of possibilities for action, and their decisions are not arbitrary. Therefore causal connections between certain conditions and actions can be identified.
• The argument from brute data – There are no brute data in the social sciences, and every phenomenon has more than one interpretation. Therefore independent causal factors cannot be identified or verified. But – there are no brute data in the natural sciences, and still causal relations are identified from within the framework of the theory.

• The argument from subjectivity – Interpretation uses a subject’s own categories. Therefore, the correctness of her interpretation cannot be established on other external factors, which are needed to establish a causal explanation. But – we are not prevented from examining further evidence which can support or weaken a subject’s own interpretation. In addition, according to Taylor, we must interpret a subject’s own interpretation in a new context in the hermeneutical circle, otherwise we cannot reach understanding.

• However, does causal explanation exclude interpretive explanation? I argue that not only does causal explanation not exclude interpretive one, but that every causal explanation in the social sciences is necessarily an interpretive one as well.

⇒ Think of the law of supply and demand. In order to understand it, we must understand the meaning of money. Money belongs to what Taylor defines as the intersubjective meanings, because it constitutes the basic social reality which is shared by every member of society. Money gets its meaning from the existence of other institutions that belong to the intersubjective meanings such as “trade”, “property” and “price”. Their meaning is defined with relation to one another. Specifically, in order to derive the law of supply and demand, we need to know what “supply” and “demand” mean. Once the meaning of these concepts is understood, we can understand the one prefers to pay as little as possible and to get as much as possible. Then, we can generalize this understanding to derive the law of supply and demand.

• In other words, causal explanation is always a second order interpretation.

• From this stem three important differences between laws in the social and the natural sciences, regarding their epistemological status:

• First, people may have personal interpretations of what, for example, money means to them, which are different from the one according to which we derived our law. Therefore, laws in the social sciences will always have exceptions. In contrast, objects in the natural world are indifferent to our interpretation of them.

• Second, laws in the social sciences are always local in place and time. They depend on the intersubjective meanings of a specific culture. These meanings are different in different cultures and in the same culture at different periods. In contrast, if theoretical laws in the natural sciences are correct, they are correct everywhere every time.

• Third, knowledge produced in the social sciences affects people’s behaviour, because it may cause them to change their personal interpretation. Therefore, laws in the social sciences do not merely describe the social reality - they also interact with it and constitute it.

Possible Objections

• Branches in biology such as ethnology use personified interpretations to describe animals’ behaviour on the one hand, while other fields such as psychiatry use chemical reactions to explain human behaviour on the other hand.

• And what if objects in the natural word actually have their own interpretation?