

**„Ein Werkzeug ist immer zugleich ein Modell für seine eigene
Reproduktion und eine Gebrauchsanweisung für die erneute
Anwendung der Fähigkeit, die es symbolisiert.“**

**(„A tool is also model for its own reproduction and a script for
the reenactment of the skill it symbolizes.“ - Weizenbaum)**

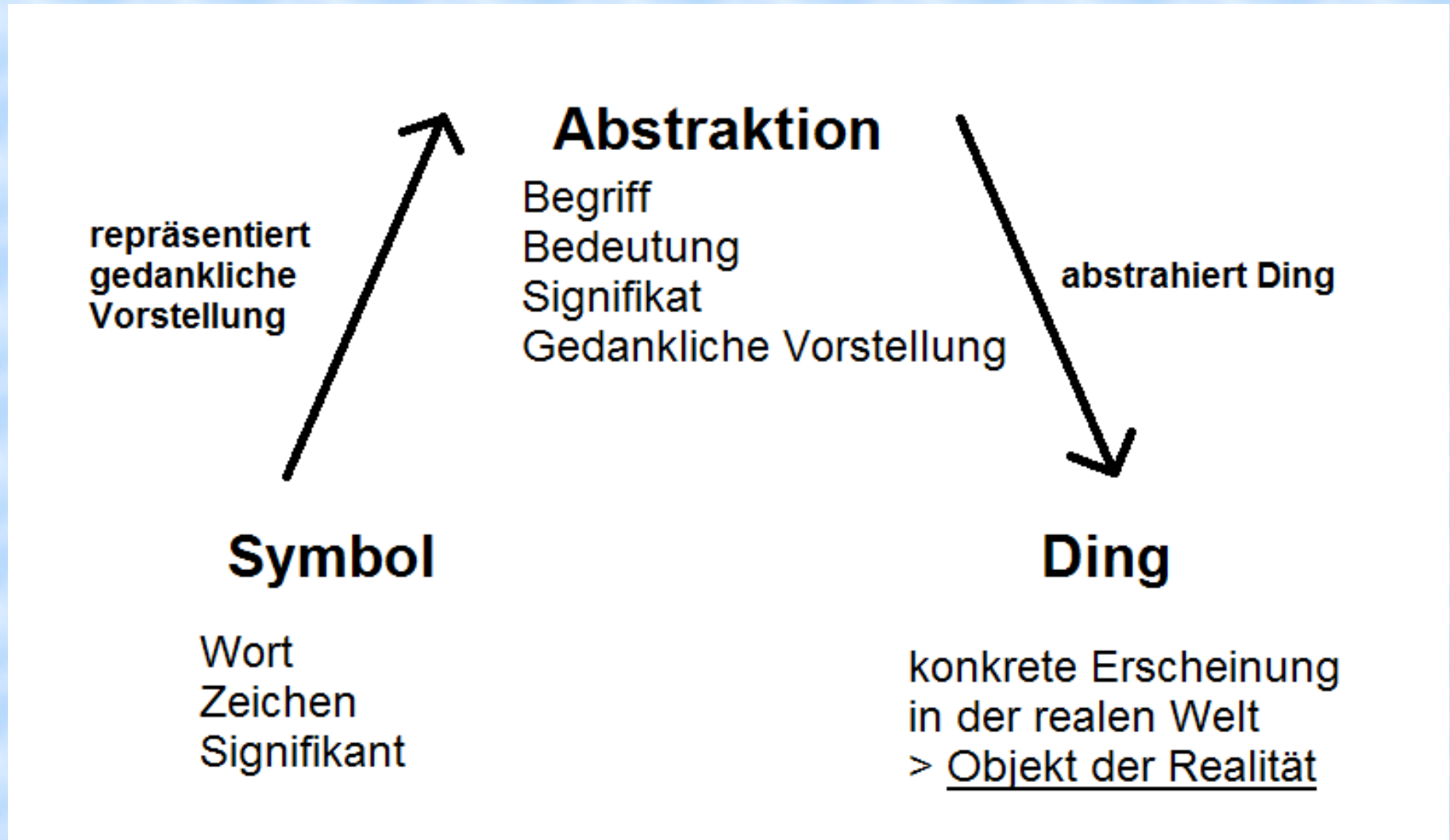
Seminar "Wissen in der modernen Gesellschaft" (WS 13/14)

David Friedo, 17.12.2013

0. Gliederung

- 1. Grundlagen: Semiotisches Dreieck**
- 2. Grundannahmen Weizenbaums**
- 3. Anwendungsbeispiele**
- 4. Diskussion**

1. Grundlagen: Semiotisches Dreieck



2. Grundannahmen Weizenbaums

But even more crucially, the machines of man have strongly determined his very understanding of his world and hence of himself, and of a world that is, at least to some extent, malleable.

- > Maschinen der Menschen bestimmten Welt- und Menschenbild.**
- > Welt ist nicht statisch.**

2. Grundannahmen Weizenbaums

Most importantly, man can foresee. In the act of designing implements to harrow the pliant soil, he rehearses their action in his imagination.

Moreover, since he is conscious of himself as a social creature and as one who will inevitably die, he is necessarily a teacher. His tools, whatever their primary practical function, are necessarily also pedagogical instruments.

> Werkzeuge sind pädagogische Instrumente.

2. Grundannahmen Weizenbaums

They are then part of the stuff out of which man fashions his imaginative reconstruction of the world. It is within the intellectual and social world he himself creates that the individual prehearses and rehearses countless dramatic enactments of how the world might have been and what it might become.

> Werkzeuge sind Mittel der (Re)konstruktion der Welt.

2. Grundannahmen Weizenbaums

That world is the repository of his subjectivity. Therefore it is the simulator of his consciousness and finally the constructor of the material world itself. It is this self-constructed world that the individual encounters as an apparently external force. But he contains it within himself; what confronts him is his own model of a universe, and, since he is part of it, his model of himself.

- > Die Welt repräsentiert die Subjektivität des Menschen.**
- > Die (subjektive) Welt ist die Grundlage von Welt- und Menschenbild.**
- > Individuum agiert als unabhängiges Wesen, aber erhält sie intrinstisch.**

2. Grundannahmen Weizenbaums

Man can create little without first imagining that he can create it. We can imagine the rehearsal of how he would use it that must have gone on in a stone-age man while he laboriously constructed his axe. Did not each of us recapitulate this ancestral experience when as small children we constructed primitive toys of whatever material lay within our reach?

- > Vorstellung über ein Werkzeug notwendig, um das Ding zu erstellen.**
- > Frühmenschliche Werkzeuge als Produkt von Trial-and-Error.**

2. Grundannahmen Weizenbaums

But tools and machines do not merely signify man's imaginativeness and its creative reach, and they are certainly not important merely as instruments for the transformation of a malleable earth: they are pregnant symbols in themselves. They symbolize the activities they enable, i.e., their own use.

> Ding/Werkzeug als Symbol der potentiellen Anwendung

2. Grundannahmen Weizenbaums

An oar is a tool for rowing, and it represents the skill of rowing in its whole complexity. No one who has not rowed can see an oar as truly an oar. The way someone who has never played one sees the violin is simply not the same, by very far, as the way a violinist sees it.

> Verständnis des Werkzeugs für die Anwendung notwendig.

2. Grundannahmen Weizenbaums

A tool is also model for its own reproduction and a script for the reenactment of the skill it symbolizes. That is the sense in which it is a pedagogic instrument, a vehicle for instructing men in other times and places in culturally acquired modes of thought and action.

- > Werkzeuge sind ein Modell für ihre Reproduktion.**
- > Werkzeuge tragen kulturell erworbenes Wissen in sich.**
- > Reproduktion grundsätzlich allzeit und überall möglich.**

2. Grundannahmen Weizenbaums

The tool as symbol in all these respects thus transcends its role as a practical means toward certain ends: it is a constituent of man's symbolic recreation of his world. It must therefore inevitably enter into the imaginative calculus that constantly constructs his world. In that sense, then, the tool is much more than a mere device: it is an agent for change. It is even more than a fragment of a blueprint of a world determined for man and bequeathed to him by his forebearers - although it is that too.

- > Werkzeuge als Mittel der symbolischen Rekonstruktion der Welt.**
- > Konstante Rekonstruktion der Welt als Wandel.**

2. Grundannahmen Weizenbaums

It is readily understandable that hand-held tools and especially hand-held weapons have direct effects on the imaginations of individuals who use them. When hunters acquired spears, for example, they must have seen themselves in an entirely new relationship to their world. Large animals which had earlier raided their foodstores and even attacked their children and which they feared, now became man's prey. Man's source of food grew, for now men could kill animals at a distance, including many species that had eluded them before. The effectively greater abundance of food must also have enlarged the domain over which they could range, thus increasing the likelihood that they would meet other people. Their experience of the world changed and so too must have their idea of their place in it.

> Beispiel: Wandel des Welt- und Menschenbildes innerhalb einer Jäger- und Sammlergesellschaft durch die Einführung des Werkzeugs Speer.

3. Anwendungsbeispiele

> Schifffahrt

"Ships of all kinds, for example, were instrumental in informing man of the vastness of his domain. They permitted different cultures to meet and cross-fertilize one another. The seafarer's ships and all his other artifacts, his myths and legends, effectively transmitted his lore from generation to generation. And they informed the unconscious of those who stayed on the land as much as that of those who actually sailed."

3. Anwendungsbeispiele

> Buchdruck

"The printing press transformed the world even for those millions who, say, in Martin Luther's time, remained illiterate and perhaps never actually saw a book."

3. Anwendungsbeispiele

> Industrielle Revolution

"And of the great masses of people all over the world whose lives were directly and dramatically changed by the industrial revolution, how many actually operated a steam engine?"

3. Anwendungsbeispiele

> Baumwollerntemaschinen

"The cotton-picking machine was deployed in the cotton fields of the American South beginning about 1955. It quickly destroyed the market for the only thing vast masses of black Southern agricultural workers had to sell: their labor. Thus began the mass migration of the American Black to the cities, particularly to such northern manufacturing centers as Detroit, Chicago, and New York, but also to the large Southern cities, such as Birmingham and Atlanta. Surely, this enormous change in the demography of the United States, this internal migration of millions of its citizens, was and remains one of the principal determinants of the course of the American civil-rights movement. And that movement has nontrivially influenced the consciousness of every American at least, if not of almost every living adult anywhere on this earth."

3. Anwendungsbeispiele

> Uhren

"Many machines are functional additions to the human body, virtually prostheses. [...] The paramount change that took place in the mental life of man, beginning during roughly the fourteenth century, was in man's perception of time and consequently space. [...] The clock is not a prosthetic machine; its product is not an extension of man's muscles or senses, but hours, minutes, and seconds, and today even micro-, nano-, and pico-seconds. [...] [Mumford (1895-1990, 'Technics and Civilizations') says] that the clock 'disassociated time from human events and helped create the belief in an independent world of mathematically measurable sequences: the special world of science.' [...] I mention the clock here not merely because it was a crucial determinant of man's thinking [...] but to show that prosthetic machines alone do not account for man's gain of power over nature. The clock is clearly not a prosthetic machine; it extends neither man's muscle power nor his senses. It is an autonomous machine."

4. Diskussion

- > **1976 ... 2013?**
- > **Kommunikationswerkzeuge?**
- > **Pädagogische Qualität von Werkzeugen?**
- > **Instrumentelle Qualität von Werkzeugen?**