Qualitative and Quantitative Methods are Not Different from a Structural Constructivist Perspective

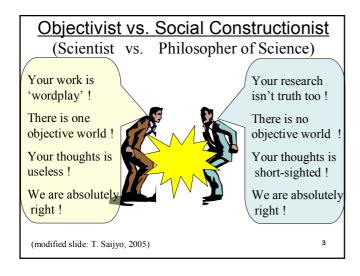
Prof. Hirofumi TAKAGI, Ph.D. School of Nursing, Faculty of Medicine, Toho University, Tokyo, Japan

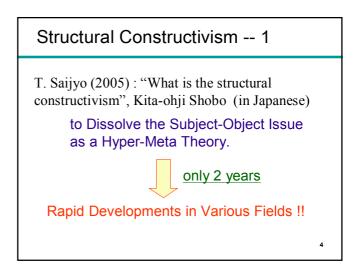
Antagonism between Qualitative and Quantitative Methods

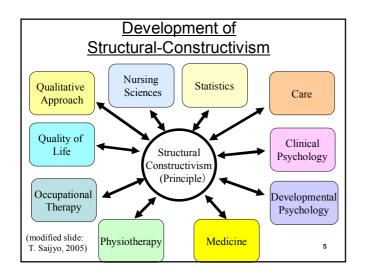
Difficulty of Mutual Understanding between Different Epistemologies

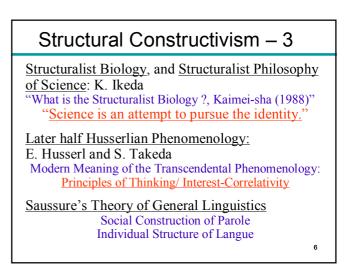
Quantitative Study: Positivism, Objectivism

Qualitative Study: Social Constructionism, etc

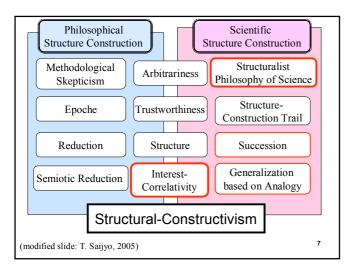


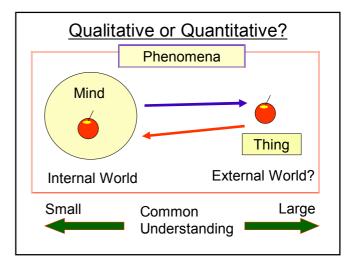






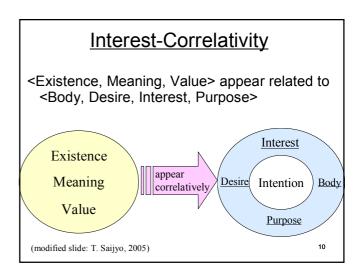
1





Structuralist Philosophy of Science

- The reality of the external world is at least non-self-evident.
- Science is an attempt to decipher the variant in terms of the invariant.
- The usefulness and value of the scientific theory depends on the degree of fitness to the phenomenon in question.



Selection of Study Methods

According to own Interest-Correlativity:

- Research Question
- Phenomenon of Interest
- Purpose of the Study
- Interpretation of the Results
- Generalization of the Results

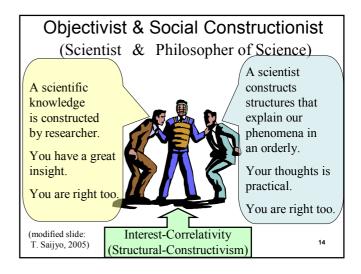
Evidence and Generalization

- Statistical and Analytical Generalizations: Yin, R.K.(1994) Case Study Research: Design and Methods, London: Sage
- <u>Quantitative Study</u> --- Statistical Generalization Distribution, Estimation, Test, etc.
- <u>Qualitative Study</u> --- Analytical Generalization Generalization and Development of Theory
- <u>Succession and Analogy</u> (by T. Saijyo) depend on Interest-Correlativity.

Succession and Analogy

 Generalization and Interpretation of the Results depend on Interest-Correlativity.
(Ex) We can use the results of patients with diabetes mellitus to other chronic disease cases.

•A substantive theory (model) may be extended to a formal theory by other researchers' succession.



Conclusion

- From a phenomenological perspective, phenomena of the internal and external worlds cannot be distinct.
- From a structuralist philosophy of science, science is an attempt to make a model to describe the phenomenon of interest.
- The value of the theory depends on the degree of fitness to the phenomenon of interest.
- Study method should be selected by the researcher's interest-correlativity.
- Generalization and interpretation of the results depend on the researcher's interest-correlativity.
- From these points of view, there is no difference between qualitative and quantitative methods.

Acknowledgement

I really appreciate <u>Dr. Takeo Saijyo</u> (Research Fellow, Japan Society for the Promotion of Science, Waseda University) for his helpful suggestions and his useful slides about Structural-Constructivism, and also <u>Prof. Kiyohiko Ikeda</u> (Waseda University) for his relevant advice on Structuralist Philosophy of Science.

This study is supported by a Grant-in-Aid from the Ministry of Education, Science, Sports and Technology of Japan (No.19659571).