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Subjective Text Interpretation in a Qualitative Study Is Not So “Subjective”

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Today's Topics

1. Main Issue of Qualitative Research
2. Comparison of Methods of Quantitative and Qualitative Researches
3. Approach by Structuralist Philosophy of Science
4. Saussure's and Chomskian Paradigms
5. Cognitive and Functional Approaches


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Criticism to Qualitative Study


Qualitative Study

1. Using a few and arbitrary cases.
2. Text interpretation is subjective.



Quantitative Study Statistics

Evidence Based Approach


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Main Issues

1. Text interpretation is subjective.
2. Is it scientific?


Can we believe subjective text interpretation as science?

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L. Wittgenstein (1921)
Tractatus Logico-Philosophicus


- 4.11 The totality of true propositions is the whole of natural science (or the whole corpus of natural sciences)
- 4.116 Everything that can be thought at all can be thought clearly. Everything that can be put into words can be put clearly.
- 4.1212 What can be shown, cannot be said.
- 5.6 The limits of my language mean the limits of my world.
- 7 What we cannot speak about we must pass over in silence.

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What is the Object in a Qualitative Study?

Feelings, Images, Thoughts, Recognitions, etc. concerning specific Phenomena and/or Personal Experiences: **What we cannot speak about.**



We need to speak about what we cannot speak about.

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Comparison of Methods of Quantitative and Qualitative Researches

1. **Methods of Quantitative Study**
2. **Methods of Qualitative Study**
3. **Why do they think that text interpretation must be subjective, doubtful, and unscientific?**

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Quantitative Analysis by Robot?

In near future, we can analyze some clinical trial data by i-Robot 5: After watched the data, It says "New drugs are more effective than standard drugs with statistically significant difference."

↓

It cannot be said that this result is your robot's subjective judgment. (Probably?)

↓

Why cannot it be said so?

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Quantitative Analysis by Robot (2)

Subject of Robot?
Using Statistical Software Packages in the Electronic Brain: Algorithms of Statistical Calculations are Already Determined.

↓

All robots have the same algorithms in their brains.

↓

Scientifically Objective?

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Qualitative Analysis by Human?

Text Interpretation :
Using Researcher's Own Brain

↓

Are the Algorithms of Text Interpretations in Our Brains the Same?

↓

Hardware **Software**
Objective? or Subjective?

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Qualitative Analysis by Human? (2)

Hardware : Brain
 Our brains must be the same in all persons in the world. (not so big different)

Software : Language
 Our languages seem to be different among different countries.
 But **the basic structure of language** seems to be the same among people in certain country at least.

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Structuralist Philosophy of Science

- **Science is an attempt to decipher the variant in terms of the invariant.**
- **Science is to pursue the identity.**
- **The usefulness and value of the scientific theory depend on the degree of fitness to the phenomenon in question.**

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Relationship among Things: Equation
“E=MC²”: Invention of Theory

Large
Quantitative

↑

Common Understanding
Qualitative

↓

Small
Qualitative

“Meditation may reduce our stress.”
Relationship among Concepts: Statement

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General Linguistics by Saussure

Ferdinand de Saussure (1857-1913)

- Swiss Linguist
- 1906-1911 : University of Geneva (3 times)
Lectures about General Linguistics
- 1916 : *Cours de linguistique générale* published by Bally and Sechehaye
- Impact on Structuralism and Phenomenology, etc
- Scientific Linguistics

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General Linguistics by Saussure

Brain
Langue

Signifiant
(Expression by Sign)

Signifie
(Meaning)

Apple

Signe (Word)

- Langue is structured socially by “Parole”.
- Langue is structured in a brain by the repetition of “Parole”.

- Langue is arbitrary.
- Langue is discriminative.
- Langue is negative.

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Universal Grammar

Noam Chomsky (1928~) :

The Logical Structure of Linguistic Theory,
 PhD dissertation, Univ. of Pennsylvania, 1955.

- Cognitive Revolution, Cognitive Science
- Scientific Linguistics : Deductive Method
- Language and Individual Grammar

- Chomsky N : The Generative Enterprise, Mouton de Gruyter, 1988, 2002
- Chomsky N, Belletti A, and Rizzi L : On Nature and Language, Press Syndicate of the University of Cambridge, 2002

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Plato’s Problem

Q. How can we account for our knowledge when environmental conditions seem to be an insufficient source of information?
 In such circumstance, why can children learn the correct language?

Poverty of the Stimulus ↓

A. One's soul existed in past lives and knowledge is transferred from those lives to the current one.

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Chomsky’s Answer

Children come innately equipped with universal grammar in their brains, from which any natural human language will develop itself without instruction.

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If Universal Grammar Really Exists, ...

Common Innate Structure of Language

↓ **Identical Hardware**

Developing Language System from UG

↓ **Identical Software**

Identical Text Interpretation System

We don't have enough and conclusive evidences.

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Language Structure of Text (Affair)

Time interval: origin (current), past, or future
Closeness: whole or part
Degree of Truth:
Space: true or imaginary (near or distant)
Probability: probable (necessary or accident) or ~p
Polarity: Affirmation or Negation
Relation:
Definiteness: definite or indefinite
Numberness: singular or plural, uncertain
Theme, Subjective, Objective, Movement (Origin to Goal), Place, Appendix

Ken Machida (2011). Foundation of the linguistic structure, 141-142, Keiso Shobo, Tokyo.

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GTA by Strauss (for example)

Open Coding, etc. :
 Property -- Dimension
 Labeling

↑ ↓ **Making Manual**

Interpretation from Language Structure :
 Theme, Subjective, Objective, Place
 Movement, Time, Negation, etc.

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Natural Semantic Metalanguage (NSM)

Two Fundamental Assumptions:

- 1) Every language has an irreducible core in terms of which the speakers can understand all complex thoughts and utterances.
- 2) The irreducible cores of all natural languages match, so that we can speak, effectively, of the irreducible core of all languages, reflecting the irreducible core of human thought.

Anna Wierzbicka : The Semantics of English Causative Constructions in a Universal-Typological Perspective, Michael Tomasello ed. (1998) The New Psychology of Language: Cognitive and Functional Approaches to Language Structure, 113-153, Lawrence Erlbaum Assoc. Inc. (Psychology Press, 2009)

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Conceptual Primitives

Substantives: I, You, Someone (Person), Something (Thing), People, Body
Determiners: This, The Same, Other
Quantifiers: One, Two, Some, Many/Much, All
Attributes: Good, Bad, Big, Small
Mental Predicates: Think, Know, Want, Feel, See, Hear
Speech: Say, Word, True
Actions, Events, Movements: Do, Happen, Move
Existence and Possession: There is, Have
Life and Death: Live, Die
Logical Concepts: Not, Maybe, Can, Because, If
Time: When (Time), Now, After, Before, A Long Time, A Short Time, For Some Time
Space: Where (Place), Here, Above, Below, Far, Near, Side, Inside
Intensifier, Augmentor: Very, More
Taxonomy, Partonomy: Kind of, Part of
Similarity: Like

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If Assumptions of NSM are True, ...

1) In all languages, lexical exponents for each the 60 or so elements can be found.

2) In all languages, conceptual primitives can enter into the same combinations.

Combinations of ↓ Primitives with a Sense

Existence of Fundamental and Universal Grammar

Elementary Propositions? ↓ Conceptual Primitives: Final Elements for Interpretation

Possibility of Identical Interpretation

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**Thank You Very Much
for Your Attention!**

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