

Construal

Quotes (except first) are from :

David Gooding

Experiment and the Making of Meaning (1990)

See Gooding's writing in *Thinking Through Computing* (2007) and in *Cognitive Technology* (2001)

See also PhD thesis of Jaratsri Rungrattanaubol

A Treatise on Modelling with definitive scripts (2002)

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A definition

From Gooding's paper in *Cognitive Technology: Instruments of Mind* (ed. M. Beynon et al. 2001):

'...I have labelled interpretative images and their associated linguistic framework as 'construals'. This term denotes proto-interpretative representations which combine images and words as provisional or tentative interpretations of novel experience.'

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Quotes 1

"The problem of reference reflect[s] the dualistic view of perceptual access.

...observers and independent world ... problem is insoluble in this form

[one solution: representation is primitive]

I argue a quite different view.. experimentalists

...construe their experience to *create* the correspondence..." (p.xv)

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Gruber shadow box

Each observer sees shadows of the same object.

How to reconcile contradictory experience?

Challenge honesty or accuracy?

Each observer has to reconsider what their own experience says (means) about the object.

Must doubt own autonomy/authority - uncertainty that allows for reconstruction, reinterpretation.

Social interaction essential for consensus.

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Quote 2

"Observers exchange tentative constructs or *construals* of their personal experience. Observers construe and reconstrue their own experience in the light of what other observers take theirs to be. Construals are a means of interpreting unfamiliar experience and communicating ones' trial interpretations. Construals are practical, situational and often concrete. They belong to the pre-verbal context of ostensive practices." (p.23)

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is an acceptably stable outcome which selects and identifies some of what has been done as 'the experiment' and which supports one interpretation of ostensive practice. This outcome emerges from and depends on the mastery and dissemination of observational practices.

SEPT. 1911. 1811.

Electromagnetic apparatus with Henry Galvani's. To be an experiment.

numbered the this is a single case?

1. Position of the eye, wire, etc.

2. Position of the eye, wire, etc.

3. On examining these more naturally found that each pole had a positive, a of success and a of rightness, the

4. On looking from above down on to sections of the wire

5. On

6. These indicate nature in circles round each pole, that

Hence the wire wires in opposite circles round each pole under the pole wires in opposite circles round the wire. To establish the nature of the wire a connecting piece was placed parallel to a cork on wires in front and dipped into a little dish of mercury. The wire and its upper end into a little inverted glass cup containing a globe of mercury; the arrangement of being pole-dipped in front. Magnets of different

Fig. 2.6 Thomas Martin's transcription of the first part of Faraday's experimental record on 3 September 1821.

5.3 Anticipating possibilities

What an experiment like before there are clearly articulated hypotheses to test?

Much of Faraday's work on magnetic relations was pre-verbal and difficult to render pictorially. Though pre-verbal it was not inarticulate: new possibilities

“Faraday’s work ...

... on magnetic rotations was pre-verbal and difficult to render pictorially. Though pre-verbal it was not inarticulate: new possibilities were articulated behaviourally and concretely by manipulations (of wires, magnets, and pencil and paper) and then, increasingly, by words and pictures.” (p.123/4)

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Quotes 3

“...how observers bring unruly experience into the domain of public discourse.” (p.23)

“.....the historical dimension - the need to invent concepts that can communicate new information gained through experiment” (p.24)

“observers *construe* experience ... the supposedly mysterious correspondence of representations to entities ... is a made relationship” (p.26)

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