

Pragmatism and Survey Research

G. A. Reynolds

February 12, 2014

Abstract

abstract

Contents

1	Introduction	4
2	Survey Research: The Received View	5
2.1	Status of Survey Research	6
2.1.1	Sampling	6
2.1.2	Interviewing	6
2.2	The Standard Model	6
2.2.1	Cognitivist Model of Thought	7
2.2.2	Bilevel model	8
2.3	The Extended Standard Model	8
2.4	Survey Methodology	9
2.5	Problems	9
3	Pragmatism	9
3.1	Historical perspective	10
3.1.1	Enlightenment and Counter-Enlightenment	11
3.1.2	Analytic and Continental	11
3.2	Major Themes	12
3.2.1	Practice	13
3.2.2	Normativity	13
3.2.3	Inferentialism	13
3.2.4	Expressivism	13
3.2.5	Deflationism	13
3.2.6	Semantic Externalism	13
3.2.7	Language as Discursive Practice	13

3.2.8	Meaning Holism	13
3.2.9	Primacy of the Social	13
3.2.10	Evolution & Statistics	13
3.2.11	Naturalism, Mind, Beliefs	13
3.3	Second-generation Cognitivism	14
3.4	Tasks & Strategies	15
3.5	Critical aspects	16
3.5.1	Representation	16
3.5.2	Cognitivism: Mind and the Mental	16
3.5.3	False Dichotomies	16
3.6	Brandom	17
3.6.1	Sellars: Myth of the Given, Space of Reasons	17
3.6.2	Sellars: Language Entries	17
3.6.3	Brandom: From Sentience to Sapience	17
3.7	Vocabularies	18
3.8	Bibliography	18
4	Science and Scientism	20
4.1	The Demarcation Problem	20
4.2	Description, Prediction, Action	20
4.3	Naturwissenschaften	21
4.3.1	Measurement	21
4.3.2	Replicability	21
4.3.3	etc.	21
4.3.4	Experimental and Field Science	21
4.4	Geisteswissenschaften: the Two Traditions	22
4.4.1	The Analytic Tradition	22
4.4.2	The Hermeneutic Tradition	22
4.5	Scientism	23
4.5.1	Physics Envy	23
4.6	Pragmatism and Science	24
4.6.1	Peirce, James, Dewey	25
4.6.2	Quine	25
4.6.3	Putnam, Davidson?	25
4.6.4	Rorty	25
4.6.5	Price	25
4.6.6	Deflationism	25
4.6.7	Causality and the Space of Reasons	25
4.6.8	Hypothetical Entities	26
4.6.9	Personal v. Subpersonal	26

5	Reconciliation: A Pragmatic Model of Survey Research	26
5.1	The Deontic Scorekeeping Model of Discursive Practice and Survey Research	26
5.2	A Quality Assurance Model for Survey Research	26
6	Notes	26
6.1	Evolution	26
6.2	Verum Factum	27
6.3	Rational Evidence	27
6.4	Misc	28
6.5	Errotetic Discursive Practice	28
6.6	Replication	28
6.7	Myths and Mythologies	29
6.8	Dopes	29
	Appendices	30
A	Recommended Reading	30
A.1	Pragmatism - Overviews	30
A.2	Pragmatism Readers	31
A.3	(Anti-) Cognitivism	31
A.3.1	Classic Cognitivism	31
A.3.2	Second-generation Cognitivism	32
A.4	Pragmatism and the Social Sciences	32
A.5	Major Figures	33
A.5.1	Robert Brandom	33
A.5.2	Donald Davidson	33
A.5.3	Huw Price	33
A.5.4	Hilary Putnam	33
A.5.5	Willard Van Orman Quine	34
A.5.6	Richard Rorty	34
A.5.7	Wilfrid Sellars	34
A.5.8	Ludwig Wittgenstein	34
B	Bibliography	34

List of Figures

1 Introduction

Abstract

Generally speaking, survey research is dominated by what might be called scientific cognitivism. The centrality of cognitivism is clearly evident in the dominant models of “the survey process” and the practices of “cognitive interviewing”. The “scientific” part is evident in the sort of language that dominates survey methodology, which routinely treats questionnaires as instruments of measurement and models interviewing on the experimental methods of the physical sciences.

Meanwhile a quiet revolution has been underway for the past several decades in the human sciences (including e.g. AI and neuroscience).

The “new sciences” - “cognitive” this or that - are generally speaking neither new nor particularly scientific. The only genuinely new element is computation. The emergence of a well-defined concept of computability in the first half of the 20th century did indeed mark a conceptual innovation of truly historic proportions. But the various “cognitive” sciences to which it gave rise, once scholars began to take a computational perspective on psychology, were not revolutionary; they only advanced an agenda that has its roots in the 17th century Enlightenment. Those “cognitive” sciences in which computation plays a central role seek to mathematicize the human, just as Galileo, Newton, and other Enlightenment scientists have sought to mathematicize nature.

The truly revolutionary movement is marked by the development of Pragmatism. Properly understood, Pragmatism doesn’t advance the agenda of the first Enlightenment; it turns it upside down.

Pragmatism liberates us from the tyranny of objective reality (Truth, etc.) without stranding us in a jejune relativism. It cheerfully accepts the existence of the real world and the constraints it imposes on us, but it rejects the notion that we can somehow find the Archimedean point of purchase that will allow us to prize apart the real from the apparent, the True from the False. It denies that there is any one true method, scientific or otherwise, that will lead us to the promised land of True Knowledge. It denies that we can learn to speak the one true language of nature, or that such a language even exists.

Remark 1 *But it also denies, for all that, that we are condemned to ignorance and error. It insists that we can learn, that we can cope with each other and our environments in the ways that matter. Etc. TODO: state the positive case in a way that ties it back to our ordinary intuitions of truth, objectivity, etc.*

Up to now, however, the Pragmatist Enlightenment has had relatively little impact on survey research. Even the relatively small number of sr researchers who have tried (since at least the early 90s) to draw attention to the contextual and interactive aspects of survey interviewing have tended to accept the main commitments of the traditional cognitivist perspective. They tend to treat context and interactivity as important but essentially peripheral aspects of a “process” whose center remains firmly entangled by cognitivist and representationalist commitments: to mental entities and processes, the autonomy of language, the atomicity of words, representational semantics, and so forth.

The survey research literature shows distinct signs of a cargo-cult science mentality. A clear example is the use of the term “probe” in discussions of cognitive interviewing. The metaphor is obvious: a probe is a scientific instrument used to examine a specimen. So long as this is treated as nothing more than a metaphor there is no problem; but the “theory” of cognitive interviewing

tends to take it much farther. It takes the notion of a probe literally, and construes ordinary questions as scientific instruments designed to probe the cognitive architecture of responding subjects. The clear implication is that there is something distinctive about the “probes” used in cognitive interviewing, something that makes them scientific instruments, when in fact they are nothing more than ordinary discursive performances. Merely calling a follow-up question a “probe” does make it an instrument; still less does it make it “scientific”. To pretend otherwise is to engage in cargo-cult science. To put it another way: the cognitivist theory under which we are to treat some verbal performances as “probes” is the *only* justification we have for thinking they are scientific instruments. But it provides no means of distinguishing a set of such performances from any other discursive performance, no way of deciding what counts as a probe, other than its own theoretical claims. The logic is entirely circular.

Critical v. constructive

The purpose of this paper is two-fold. First it provides an overview of contemporary Pragmatism, in order to give substance to the claim advanced above as to its revolutionary character. One way to do this is by contrasting it with its opposite number(s), so the result will be to expose and clarify the fundamental themes and commitments of representationalism and cognitivism, etc. This will sharpen some boundaries.

Once the background issues - theoretical, methodological, philosophical - are clear, the other task is to examine, at least in a preliminary manner, the implications of Pragmatism for Survey Research. What is on offer is a radical re-conceptualization of the entire enterprise. A move away from scientism toward a more properly (and appropriately) anthropological perspective.

Caveat: we are not talking here about merely methodological issues. It is not a question of doing the same thing, only better; of finding an innovative method that solves the old problems. What is suggested is rather a fundamental change in the way we conceive of the task, asking different questions, discarding the old questions as not useful or even very meaningful.

Remark 2 *Readers familiar with Peter Winch's 1958 classic The Idea of a Social Science and its Relation to Philosophy will recognize many of his themes in what follows. But much has changed since 1958. In particular, philosophers have elaborated detailed accounts of xyz, etc. In addition, Winch seems to have been unaware of Sellars' Empiricism and the Philosophy of Mind (EPM).*

2 Survey Research: The Received View

Abstract

This section provides a schematic overview of the major features and themes of the most common characterizations of Survey Research. Along the way it points out some problems which will be explicated in detail later in the paper. The purpose here is just to present a clear exposition of what we're talking about.

Naturally a brief overview like this risks errors of omission as well as misrepresentation. But I hope that most readers will find it unobjectionable, or at least close enough for the purposes of this paper (i.e. clarification and critique.)

2.1 Status of Survey Research

Remark 3 *What is “Survey Research”? Two answers: research that uses surveys to collect (and construct) data, and research into the nature of surveys. First, each survey project studies something, or several things (each question being “about” something). Second, Survey Research as a kind of meta-discipline studies surveys; usually this goes by “Survey Methodology”.*

Survey Research counts as a field science, although many survey researchers attempt to conduct “experiments”; more on this below.

- Survey Research: production and collection of social science “data” (more accurately: *facta*, *mades*, rather than *data*, *givens*) by means of questions. Better: survey *based* research; research that *uses* survey techniques to enable study of a phenomenon. How then do we know that these techniques are appropriate for the object of study?
- Survey Methodology: study of the use of questions to produce and collect data

Survey Research is more engineering discipline than science. Like any engineering discipline, it *uses* the results of science. But unlike genuinely technological engineering disciplines, it cannot rely solely on scientific knowledge, since it studies human populations. In this respect it is like product design. An engineer can design a functioning cell phone, but the design of a successful phone that people can easily use requires more than just engineering skill. That sort of product design skill is more aesthetic than scientific (although it too may use science).

There are two aspects here:

2.1.1 Sampling

The sampling side of Survey Research is indisputably scientific, in that it uses mathematical statistics. However, it also relies on knowledge about people.

2.1.2 Interviewing

A common complaint among Survey Research investigators is that we lack good scientific models of the survey interview. So we make do with whatever findings from psychology, sociology, etc. seem most useful.

2.2 The Standard Model

Remark 4 *This is a model of survey interviewing, not Survey Research.*

Laboratory model: based entirely on (bad) analogy to the physical sciences.

- Telementation (information transfer) model of communication
- Thought-language dichotomy (Language of Thought model)

- Cognitivist-mentalist-computational model of thought
- Stimulus-Response model of question-answer interaction (discursive practice)
- Performance-Competence model of (skilled) behavior
- Lab rat model of respondent
- Lab technician model of interviewer
- Realist, representationalist model of meaning
- (or: Information model of meaning)
- Lab instrument (of measurement) model of questionnaire and questions
- “Scientific method” model of “interview process” (“standardized” interviewing)
- Causal model of cognition and action
- Bilevel, appearance-reality model of phenomena (e.g. “latent” variables as causes of observable phenomena, etc.)

2.2.1 Cognitivist Model of Thought

Remark 5 *TODO: overview of classic cognitivism and the standard Tourangeau-Rips-Razinski model of the “response process”.*

Two problems with the std cognitivist model. One is that critics like Descombes have pretty much destroyed the classic cognitivist model, and cogsci itself has moved on (e.g. to situated/embedded/extended models); the other is that pragmatism has offered a radically different account of mindedness in general, which has no need of the classic cognitivist model.

Remark 6 *Critiques of classic cognitivism: Descombes, Dreyfus, etc. attack on conceptual, logical, philosophical grounds; cognitive scientists themselves forced to modify the classic model by empirical evidence as well as theoretical/philosophical reasoning. For example, a wealth of evidence that the body plays a role in cognition forced a reconsideration of the notion that cognition is mental/psychological.*

Remark 7 *TODO: classic v. “2nd wave” cognitivism*

2.2.2 Bilevel model

Evident in frequency of certain sorts of vocabulary in the Survey Research literature, especially theoretical or methodological literature.

For example:

- interview *process*
- response *process*
- “tapping” underlying process etc.
- “latent” variables (required by this model, as causal factors)
- etc.

Remark 8 *Such language presupposes and implicitly relies on a causal model of behavior. But the use of such language and its presuppositions is virtually never explicitly addressed by survey researchers. It is almost always just accepted without critical examination.*

2.3 The Extended Standard Model

Two kinds of critics of the SM: radical and conservative.

Radical critics argue that the whole thing is rotten and should be discarded.

Conservative critics tend to admit that the whole thing *may* be rotten, but they content themselves with trying to improve the existing model - hence, the *Extended Standard Model* (XSM) of Survey Research. The XSM extends the Standard Model by introducing notions of interaction and conversational dynamics. But the conservative (or moderate) camp tends to be quite timid, and seems reluctant to follow through to the logical conclusion. They treat Survey Research as something of a sacred cow.

For example:

“One could study the standardized survey interview and conclude that it does not work.... *This may be a justified conclusion. Conversation analytic studies make visible the weak basis of the results of quantitative research.* Nevertheless, I adopt a more pragmatic [*sic*] view and believe that modern society cannot and will not do away with this efficient and relatively inexpensive measuring instrument. We should therefore try to improve its quality.” (Hanneke Houtkoop-Steenstra, quoted in Potter, [“Review Essay Studying the Standardized Survey as Interaction”](#), p. 275)

Remark 9 *Here “pragmatic” means something like practical, or likely to be acceptable by today’s researchers; it has nothing to do with the philosophical pragmatism that is the topic of this paper.*

Remark 10 *Note that H-S is only talking about “standardized” interviewing techniques, not about the SM in general. CA does expose problems with standardized interviewing (“quantitative research”), but pragmatism exposes problems at the more fundamental level of the SM itself, of which standardized interviewing is only a component.*

There seems to be little point in trying to improve something that “does not work”. If it is true (as it no doubt is) that “modern society cannot and will not do away with” Survey Research, then the better course of action is to reconceptualize the enterprise so that it does work.

The key question, if it does not work, is why. If it can be shown that it cannot work, then trying to improve it would obviously be pointless. And on the pragmatist view (explicated below), the SM not only cannot work, it is incoherent.

Remark 11 *The structure here, to be explicated in detail below, is analogous to the semantics-pragmatics dichotomy: the Extended Standard Model only augments the Standard Model. The alternative, pragmatist approach is to expose the irremediable problems with the Standard Model, so that it becomes clear that the dichotomy is only apparent.*

2.4 Survey Methodology

Monism v. pluralism.

2.5 Problems

- Failure to distinguish space of reasons and space of laws
- Over-reliance on cognitivism
- Physics envy
- Failure to distinguish between philosophical and scientific “stuff”
- ...

3 Pragmatism

Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then our conception of these effects is the whole of our conception of the object.

“The Pragmatic Maxim”
CS Peirce (CP5.402)

Remark 12 *Three ways to proceed: 1. critical: present some strawmen and show how pragmatism knocks them down (e.g. representationalism, cognitivism, etc.); 2. constructive: say what pragmatism is, without worrying about what it isn't or what it says about competing ideas; 3. present some issues or "problems" or themes, and discuss the various options on offer for addressing them, highlighting the pragmatist ones. The latter is generally Brandom's strategy, and it makes for a more irenic, fair presentation. Knocking down strawmen is fun, but runs the risk of aiming at the wrong targets.*

Remark 13 *"But on the other hand, 'we' all know that when we look and see, when we carefully scrutinize what is bunched together under the rubric of any of these 'isms,' we discover assertions, theses, and positions which are conflicting, contradictory, and sometimes incommensurable with each other. Even those attempts to sort out the varieties of these "isms" are themselves highly contested. So it might seem prudent to drop all 'ism' talk and say what we mean without relying on these unstable crutches. Yet despite all cautionary warnings, we also have a sense that no matter how vague and ambiguous these 'ism' expressions are, they can do some important work for us. They enable us to gesture toward philosophic orientations and approaches that do share family resemblances and do have significant consequences. At the very least, we should avoid falling into the trap of thinking that whenever someone uses one of these contested 'ism' terms 'we'—more or less—know what is meant. It is advisable to adopt the maxim that we should always scrutinize what precisely is being said (and unsaid) when someone appeals to any of these 'isms.'" (Baert, "Towards a Pragmatist-Inspired Philosophy of Social Science", p. 57)*

"Although the term pragmatism is frequently used to characterize some or other highly specific thesis or program, pragmatism is not and never was a school of thought unified around a distinctive doctrine." (Talisie and Aikin, *The pragmatism reader: from Peirce through the present*, p. 1)

"As a kind of naturalism, pragmatism is partly a thesis about the relation of philosophy to the natural sciences; consequently, one should expect pragmatists to engage the questions of the proper aims and methods of philosophy." talisse 9

"In its most muscular form, the pragmatist thesis is that, once we understand properly the nature of philosophy, we will discover that there are no philosophical problems anyway." talisse 9

Pragmatism integrates naturalism (science) and humanism:

"What makes each of these authors pragmatist is their emphasis on naturalistic and variously humanistic accounts of philosophical problems and solutions. One of the reasons as to the variety of pragmatisms is the variety of humanisms available to pragmatists." talisse 5

Related: "the practice turn" in social theory; interactionism; dialogism.

3.1 Historical perspective

We have the Cartesian, rationalist tradition, and the Romantic, hermeneutic tradition. Pragmatism is distinct from both, maybe because it was so heavily influenced by evolutionary and statistical thinking.

3.1.1 Enlightenment and Counter-Enlightenment

Descartes, Locke, etc.

Vico, Hamann, Herder, etc.

3.1.2 Analytic and Continental

In the 20th century (western) philosophy split into the “analytic” (mostly Anglophone) and “continental” traditions whose practitioners tended not to talk to each other (much). Recently this split has been closing; pragmatism is enjoying a major reinvigoration not only in Anglophone philosophy departments but throughout Europe.

Remark 14 *Pragmatism was distinct from both, and for a period at least treated with considerable disdain (both Russell and Heidegger had some snotty things to say about it.) A common narrative has it that pragmatism went into eclipse in the mid-20th century, when it lost out to logical empiricism, but in fact it never really went away; people just didn't use the label. See the introduction of Bacon, [Pragmatism: an introduction](#) for a good historical overview.*

Examples: Descombes, Brandom, both of whom consciously attempt to reconcile the two traditions.

Brandom's Genealogy of Pragmatism

Brandom traces pragmatism back to Kant. The lineage runs from Kant through Hegel, to the American Pragmatists, with branches to the Heidegger of ?? and the Wittgenstein of [Philosophical Investigations](#), and on to such recent figures as Quine, Davidson, Putnam, Rorty, etc..

The Continental Tradition

Remark 15 *Oddly, Brandom has almost nothing to say about Vico. Maybe that is because he focuses on the anglophone analytic tradition.*

From Vico to Herder to Foucault, Derrida (etc.)

What about structuralism (Descombes)?

Contemporary pragmatism is conventionally taken to begin with the great American triumvirate of Peirce, James, and Dewey, but its roots extend much further back. Descartes is the great *bete noir* of most pragmatists, and although Cartesianism came to dominate philosophical thought it was never unchallenged. Vico stands out as an early opponent of Cartesian scientism and defender of humanistic learning. For him, science is a matter of genealogy; hence his famous slogan *verum factum*. We learn what something is by studying how it came to be.

Vico: “verum et factum convertuntur, that “the true and the made are...convertible,” or that “the true is precisely what is made” (verum esse ipsum factum).” (Costelloe, [“Giambattista Vico”](#))

Remark 16 *Vico, Nietzsche, Foucault, etc. - the “geneological” tradition. This is a history that can be trace as a counterweight to the history of cognitivist/empiricist tradition (Descartes, Locke, Hume, etc. up through Chomsky, Fodor, etc.) How much of this do we need to cover? It's mainly of historical interest, but conceptually this is of a piece with pragmatism.*

Lollini, “On Becoming Human: The *Verum Factum* Principle and Giambattista Vico’s Humanism”
 Egginton and Sandbothe, *The Pragmatic Turn in Philosophy*

3.2 Major Themes

Negative and positive.

- Pro:
 - normativity
 - inferentialism
 - expressivism
 - semantic externalism
 - meaning holism
 - language
 - social cognition (v. atomism)
 - evolution & statistics
- Con:
 - causal, nomological basis of action
 - foundationalism
 - essentialism
 - representationalism
 - cognitivism
 - mentalism
 - cognitive/semantic internalism
 - atomism
 - methodological individualism

Remark 17 *Other: naturalism v. historicism*

On some of these pragmatism can go either way. For example, Brandom is anti-naturalist, Price is naturalist (in a special sense).

“Quine’s corpus presents an ongoing development of a few key pragmatist and naturalist insights about science, language, and ontology, and an attempt to fit them together. Importantly, Quine proceeds by way of critical engagement with nonnaturalist critics and interlocutors....the case for pragmatism was to be made on a case-by-case basis, not by way of a comprehensive philosophical system.” (Talisie and Aikin, *The pragmatism reader: from Peirce through the present*, pp. 8-9)

3.2.1 Practice**3.2.2 Normativity****3.2.3 Inferentialism****3.2.4 Expressivism****3.2.5 Deflationism**

Semantic and ontological deflationism, aka minimalism.

3.2.6 Semantic Externalism**3.2.7 Language as Discursive Practice****3.2.8 Meaning Holism****3.2.9 Primacy of the Social****3.2.10 Evolution & Statistics****3.2.11 Naturalism, Mind, Beliefs**

It was her voice that made
 The sky acutest at its vanishing.
 She measured to the hour its solitude.
 She was the single artificer of the world
 In which she sang. And when she sang, the sea,
 Whatever self it had, became the self
 That was her song, for she was the maker. Then we,
 As we beheld her striding there alone,
 Knew that there never was a world for her
 Except the one she sang and, singing, made.

...
 Oh! Blessed rage for order, pale Ramon,
 The maker's rage to order words of the sea,
 Words of the fragrant portals, dimly-starred,
 And of ourselves and of our origins,
 In ghostlier demarcations, keener sounds.

The Idea of Order at Key West
 Wallace Stevens

“The maker’s rage to order words of the sea... and of ourselves and of our origins”: the Cartesianist suffers from a delusion: he thinks that his task is to *discover* order in our doings, an order that is not our doing. He yearns to find intentionality in inner states, to reduce the human to the physical, etc. The

pragmatist too is seized by “the maker’s rage to order”, but like the narrator of Stevens’ great poem, has no illusions about the source of the order we perceive. It is *our* order, an order we *make*.

3.3 Second-generation Cognitivism

Remark 18 *Second (and third) generation cognitivism (I take 3rd gen to refer to models in which the social plays an essential role) seems to be moving clearly in the general direction of some kind of pragmatist orientation. Especially “enactive” models.*

What distinguishes pragmatism from 2nd and 3rd generation cognitivism?

Pragmatism - or at least the sort of *rational* pragmatism elaborated by Brandom - does not sweat the details of the sub- or pre-conceptual systems studied (postulated) by cognitivists. Obviously cognition depends on some kind of physical causal basis. One needs a brain to think. Some 2nd generation cognitivist models extend this idea and claim that the sort of thinking of which humans are capable also requires extra-cranial bodies; for example, some argue that gesture forms the basis of cognition, and more radical models propose that extra-bodily phenomena such as pencils and computers should be counted as components of cognition. But for the pragmatist this is beside the point; conceptual activity occurs in the space of reasons, which is distinct from the space of nature and laws. So the details of just how we as physical creatures are able to think are not important or even relevant to the primary question of just what counts as thinking. That is a conceptual issue rather than a scientific one.

The tricky bit for pragmatism is how to account for the move from the sub-conceptual, law-governed world of (preconceptual) sentience to the conceptual, rational world of (conceptual) sapience. There are several theories on offer for this. McDowell argues that perception is always already conceptually structured; Brandom denies this. Etc. Either way, the real issue is what to say about concept use in the space of reasons, regardless of what science may have to say about the physical basis upon which concept use depends. And this is a philosophical rather than a scientific endeavor. Not that philosophy can ignore science; pragmatism in general is enthusiastically naturalistic and happy to defer to science where necessary. But science cannot tell the whole story. In particular, it cannot tell us what counts as concept use (rationality).

Remark 19 *This seems too strong. Price might argue that science can tell us a great deal about the role that concepts play in our lives. But you have to have concepts already before you can undertake that sort of scientific investigation.*

Remark 20 *This is also related to the question of naturalism, another major theme in pragmatism. The space of reasons seems to be distinct from the natural space of laws and causes. So one challenge for pragmatism is to provide a naturalistic account of the space of reasons. Price is good on this.*

3.4 Tasks & Strategies

I wake to sleep, and take my waking slow.
 I feel my fate in what I cannot fear.
 I learn by going where I have to go.
 We think by feeling. What is there to know?
 I hear my being dance from ear to ear.
 I wake to sleep, and take my waking slow.
 Of those so close beside me, which are you?
 God bless the Ground! I shall walk softly there,
 And learn by going where I have to go.
 Light takes the Tree; but who can tell us how?
 The lowly worm climbs up a winding stair;
 I wake to sleep, and take my waking slow.
 Great Nature has another thing to do
 To you and me; so take the lively air,
 And, lovely, learn by going where to go.
 This shaking keeps me steady. I should know.
 What falls away is always. And is near.
 I wake to sleep, and take my waking slow.
 I learn by going where I have to go.

"The Waking"
 Theodore Roethke

"Task" instead of "object of study"; "Strategy" instead of "methodology". To talk of an object of study would be to prematurely presuppose that such an object exists and is identifiable as such. But pragmatism makes no such presupposition; it learns by going where it needs to go.

"The task of constructing fully and genuinely post-Cartesian concepts of concepts and their contents is one we have only begun." (R. Brandom, ["From a critique of cognitive internalism to a conception of objective spirit"](#), p. 252)

Brandom, Price, etc. adopt similar analytic/explanatory strategies which have their roots in Peirce's Maxim.

"Roughly speaking, deflationists suggest that semantic vocabulary enables speakers to do useful things with (other, pre-existing) words and sentences - to do things which they couldn't do so well, or at all, without semantic vocabulary...A functional account of this kind is, inter alia, an account of the use speakers make of the semantic vocabulary concerned. It explains the vocabulary in terms of its use and function in the linguistic community. But it does not reduce or analyse facts about meaning to facts about use. Instead it explains talk of meanings, and tells us what it takes to belong to a community who go in for such talk." Price, Defl about truth p. 112

"If semantic properties do attach to physical objects in a primary sense, then deflationism is is a non-starter. In particular, it is not enough to try to show that these philosophers are looking for the wrong sort of property - a thick notion of aboutness, where a thin one would do, for example. As deflationists,

we need to argue that they looking in the wrong place, that they have the wrong conception of the nature of the problem.” Price 112

“The solution, I think, is to abandon the idea that among the goals of a use-based theory of meaning should be that of providing a non-semantic reduction of propositions of the form ”x means F”. On the contrary, I think, the right approach to these locutions is that applied with such success by deflationists in the case of truth: viz. to explain the function of such a locution - in general, the function of talk about meaning - in terms which don’t require that it refers to substantial properties.

As noted above, such an approach is bound to appeal to facts about usage. It will tell us under what circumstances speakers use the locutions concerned, and what functions this use serves in the speech communities concerned. But instead of analysing facts about meaning in terms of facts about use, it explains our talk of meanings, and tells us what habits of usage underlie such a discourse.” same, p. 115

3.5 Critical aspects

Remark 21 *To complement the positive account of pragmatism above, this section will give an account of pragmatism’s criticism of some of the themes to which it stands in opposition.*

Alternatively, we might prefer to integrate this material in the thematic sections above, so both critical and constructive perspectives presented together for each theme.

3.5.1 Representation

[T]he chief service of pragmatism, as regards epistemology, will be to give the *coup de grace* to representationalism.

Dewey, letter to Charles Augustus Strong, 1905, quoted in Menand

Virtually all pragmatists are anti-representationalists

3.5.2 Mentalism

In general, pragmatism is anti-mentalistic. Strong versions deny that minds exist. Etc.

3.5.3 False Dichotomies

- quantitative v. qualitative “variables”
- Reality-appearance, overt-covert, observable-hidden, manifest-latent, etc. ; true-false; etc.; “hidden” laws, processes, entities “underlying” observables, etc.
- Analytic-Synthetic (Quine)
- Fact-Value (Putnam)

- Qualitative-Quantitative
- Word-World
- Semantics-Pragmatics
- Performance-Competence

3.6 Brandom

Contemporary philosophical pragmatism receives its most complete and thorough exposition in Robert Brandom's masterpiece "Making It Explicit"¹.

3.6.1 Sellars: Myth of the Given, Space of Reasons

Natural space of causes (laws), discursive space of reasons

3.6.2 Sellars: Language Entries

This is the device that accounts for the relation of causal and rational orders. It is true that the world in some sense has a causal influence on our language performances, but that is not enough to account for the intelligibility of those performances. When we declare "That's red" in the presence of red things, we do so "because" (in some sense) of those red things and their (causal) relation to us. This is what Sellars dubbed a "language entry" move. But that sort of causality cannot account for the conceptual content of our utterance.

3.6.3 Brandom: From Sentience to Sapience

To say "That's red" is to apply the *concept* "red", and the subpersonal, causal relation between the presence of a red thing and our conceptually contentful utterance cannot account for this. It cannot account for our ability to apply the concept red *correctly*, to red things, not non-red things. After all, if the presence of red things caused us to say "That's red", then we would in fact say that hundreds or thousands of times a day. A causal model cannot account for four fundamental normative aspects of our behavior: the ability to lie, to err, to hedge ("It *seems* red"), and to remain silent.

Brandom's Parrot: one of Brandom's favored illustrative examples is a parrot trained to squawk "That's red" in the presence of red things. This is an example of *sentience* rather than *sapience*. Brandom's Parrot is not sapient; its performance does not count as conceptually contentful (rational), since it does not involve the application of concepts. This is where inferential semantics enter the picture:

¹MIE is over 600 pages of close argument covering most of the philosophical topics of interest to Survey Research. For a more manageable introduction to Brandom's ideas see his (R. Brandom, "[Précis of Making It Explicit](#)"), (R. Brandom, [Articulating Reasons : An Introduction to Inferentialism](#)). See also (R. Brandom, [Perspectives on Pragmatism : Classical, Recent, and Contemporary](#)), (Robert B Brandom, [Reason in philosophy](#)), and (R. Brandom, [Between saying and doing : towards an analytic pragmatism](#)).

the content of “red” is essentially inferentially articulated. To count as a concept user the parrot must be capable of drawing inferences (either explicitly or implicitly) involving the concept “red”. For example, it must know that “That’s green” is incompatible with “That’s red”. Those inferences, in turn, are only intelligible in terms of what Brandom (following Sellars) calls “the game of giving and asking for reasons”.

Question-based interviews: only intelligible as “language games”, denizens of the Space of Reasons.

Remark 22 *The fundamental mistake made by the Standard Model is failure to distinguish between distinct “orders of explanation”: the subpersonal, causal world, and the personal, discursive, rational world. Q&A-based interviewing lives in the latter, not the former. The notion that questions are stimuli that “cause” responses is fundamentally mistaken. Whatever causal relations may obtain between a question utterance and the ensuing response utterance are not relevant to the intelligibility of the game. Responses have reasons, not causes.*

Remark 23 *An example would be useful here. Maybe “How old are you?” A correct response to this question is one that involves propositional commitments and entitlements. It does not involve any causal relationship to the question, still less to any “latent” age variable whose value is, say “27 years”. Crudely put, you know you’re 27 years old if you know that last year you were 26. More accurately, you know how to respond because you know the rules of the language game, which involves also counting years and birthdays. Consider how children learn their ages: they learn that certain verbal performances (e.g. “I’m four”) are correct, regardless of whether they understand what they mean, and they learn that every year they have a “birthday”, after which a different performance (“I’m five”) is correct.*

3.7 Vocabularies

Measurement as description. Description v. evaluation. Price on naturalisms. The bifurcation thesis.

3.8 Bibliography

- Bacon, [Pragmatism: an introduction](#)
- Barnes, [“Ethnomethodology as Science”](#)
- Baert, [“Pragmatism, Realism and Hermeneutics”](#)
- Baert, [“Realism versus Pragmatism – an Introduction”](#)
- Baert, [“Pragmatism as a Philosophy of the Social Sciences”](#)
- Baert, [“Towards a Pragmatist-Inspired Philosophy of Social Science”](#)
- Baert, [Philosophy of the Social Sciences](#)
- Berard, [“Rethinking Practices and Structures”](#)
- Bloor, [“Wittgenstein and the priority of practice”](#)
- Blackburn, [“Invited Introduction”](#)
- Blackburn, [“The Steps from Doing to Saying”](#)

- R. Brandom, *Making it explicit: reasoning, representing, and discursive commitment*
- R. Brandom, "Précis of Making It Explicit"
- R. Brandom, *Articulating Reasons : An Introduction to Inferentialism*
- R. Brandom, "The Pragmatist Enlightenment (and its Problematic Semantics)"
- R. Brandom, *Between saying and doing : towards an analytic pragmatism*
- Robert B Brandom, *Reason in philosophy*
- R. Brandom, *Perspectives on Pragmatism : Classical, Recent, and Contemporary*
- Robert B. Brandom, "Analyzing Pragmatism: Pragmatics and Pragmatisms"
- Robert B. Brandom, "Classical American Pragmatism: The Pragmatist Enlightenment - and Its Problematic Semantics"
- Robert B. Brandom, "Vocabularies of Pragmatism: Synthesizing Naturalism and Historicism"
- R. Brandom, "The Social Anatomy of Inference"
- Button, *Ethnomethodology and the Human Sciences*
- Churchill, "Ethnomethodology and Measurement"
- Descombes, *The Mind's Provisions: a Critique of Cognitivism*
- Emirbayer and D. W. Maynard, "Pragmatism and Ethnomethodology"
- Garfinkel, *Studies in ethnomethodology*
- Garfinkel, *Ethnomethodology's program*
- Heritage, *Garfinkel and ethnomethodology*
- Kraut, "Varieties of Pragmatism"
- Loeffler, "Neo-Pragmatist (Practice-Based) Theories of Meaning"
- Lynch, "Ethnomethodology and the logic of practice"
- Lynch, "Cognitive activities without cognition?"
- Macdonald and Pettit, "The Nature of Naturalism"
- Margolis, *Reinventing pragmatism*
- Margolis, *Pragmatism without foundations*
- D. W. Maynard and Clayman, "The Diversity of Ethnomethodology"
- D. W. Maynard and Schaeffer, "Toward a Sociology of Social Scientific Knowledge"
- Price, "Could a Question be True?"
- Price, *Expressivism, pragmatism and representationalism*
- Price, "Naturalism without representationalism"
- Price, "Pluralism, 'world', and the primacy of science"
- Price, "Two expressivist programmes, two bifurcations"
- Putnam, *Representation and reality*
- Putnam, "The Collapse of the Fact/Value Dichotomy"
- Putnam, "The Three Enlightenments"
- Rorty, "Method, Social Science, and Social Hope"
- Rorty, "Representation, Social Practise, and Truth"
- Rorty, *Philosophy and the Mirror of Nature*
- Schatzki, Cetina, and Savigny, *The Practice Turn in Contemporary Theory*
- Sellars, *Empiricism and the Philosophy of Mind*

Tate, “Foucault, Bakhtin, Ethnomethodology: Accounting for Hybridity in Talk-in-Interaction”

Weiss and Wanderer, *Reading Brandom*

Winship and Muller, “Ethnomethodology and Consequences”

D. H. Zimmerman, “Review: Ethnomethodology and the Human Sciences”

4 Science and Scientism

Remark 24 *Q: What does Pragmatism have to say about science, and why should we care? A: Philosophy as therapy (Rorty) or edification (Wittgenstein?). Exposure of unexamined presuppositions and consequences, etc.*

Remark 25 *Science as source of authority - epistemic and otherwise.*

4.1 The Demarcation Problem

Abstract

This section reviews the demarcation problem: what distinguishes science from non- (pseudo-, cargo cult, ...) science?

4.2 Description, Prediction, Action

Last evening the moon rose above this rock
Impure upon a world unpurged.
The man and his companion stopped
To rest before the heroic height.

Coldly the wind fell upon them
In many majesties of sound:
They that had left the flame-freaked sun
To seek a sun of fuller fire.

Instead there was this tufted rock
Massively rising high and bare
Beyond all trees, the ridges thrown
Like giant arms among the clouds.

There was neither voice nor rested image,
No chorister, nor priest. There was
Only the great height of the rock
And the two of them standing still to rest.

There was the cold wind and the sound
It made, away from the muck of the land
That they had left, heroic sound
Joyous and jubilant and sure.

“How to Live. What to Do.”
Wallace Stevens

Rorty's complaint: science cannot tell us what to do, but scientism thinks it can.

"To sum up this point: there are two distinct desiderata for the vocabulary of the social sciences: (1) It should contain descriptions which permit prediction and control (2) It should contain descriptions which help one decide what to do." Rorty, "Method, Social Science, and Social Hope", p. 75

Rorty, "Representation, Social Practise, and Truth"

4.3 Naturwissenschaften

Abstract

A concise survey of those features of "hard" science that figure prominently in the Survey Research literature. One purpose is to clarify the ways in which Survey Research tries to mimic other sciences.

4.3.1 Measurement

4.3.2 Replicability

4.3.3 etc.

4.3.4 Experimental and Field Science

Radicals may insist that replicable experimentation is essential to science. But in astronomy, paleontology, and various other "field" sciences, replicable experiments are impossible; does this mean they are not genuine sciences? The answer for virtually any reputable scientist, I hazard to guess, is no: they are in fact scientific disciplines.

Then there is biology, which involves both experimental and field research. Molecular biologists surely conduct genuine experiments; even evolutionary biologists can investigate evolution by conducting small-scale experiments.

Then there is the question of simulation. With the advent of inexpensive computation, scientists in virtually any field can use computational simulations to model the real world; does this non-empirical research count as genuine science?

The point of these considerations is to open up space for a broader notion of what counts as genuine science. The idea is that we can then accomodate the social (or human, etc.) sciences as genuinely scientific *without* mimicking physics or biology or any other science.

Or: science as a plurality. There is no one scientific method that allows us to distinguish between science and non-science. Instead, each science must discover (that is, construct) its own methods.

This means, among other things, that Survey Research need not concern itself overmuch with interviews as quantitative measurement. At least not antecedently; quantitative measurement may be appropriate, in the right circumstances, but it should not be antecedently imposed as a criterion of adequacy. Survey Research interviews can be useful and fully scientific *even if they do no measuring*.

Remark 26 *This is not news; that there is no One True Scientific Method has been widely recognized for decades if not centuries. Many recent students of science have explicitly addressed this, most obviously Kuhn, Lakatos, Feyerabend, etc.*

So what is the point of bringing this up? Just clarity, mainly. In the Survey Research literature, as far as I can tell, these issues are rarely explicitly addressed. Many papers on Survey Research “experiments” have been published, but I have yet to find a detailed examination of why we should deem the research described as experimental. Indeed it seems clear that a good deal of this research fits Feynman’s definition of Cargo Cult Science. In order to get clear about exactly what Survey Research is (and what it is not), how it should (should not) be conducted, etc. such considerations are essential and should be as explicit as possible.

(Ryan, “[Replication in Field Biology](#)”)

(Hurlbert, “[Pseudoreplication and the Design of Ecological Field Experiments](#)”)

4.4 Geisteswissenschaften: the Two Traditions

Abstract

The two traditions are philosophical; what is the relevance to science? If we were talking about *Naturwissenschaften*, say, physics, the relevance would be minimal. But that’s not the case with the human sciences. One of the problems with them is that they have always had trouble disentangling the scientific from the philosophical. So the purpose of this section is to at least sketch the main themes that have played important roles in the human (social) sciences. And the reason that is useful is because it helps us place Pragmatism in a conceptual space as well as a historical context. Which in turn will help us better to grasp the significance of Pragmatism for Survey Research.

Remark 27 *Winch - tracing social science to Mill, etc. - the analytic branch?*

Remark 28 *Sociology v. anthropology? Different lineages?*

Remark 29 *“Social physics” - Comte?*

4.4.1 The Analytic Tradition

Remark 30 *Does this belong under Geisteswissenschaften? Yes, insofar as it is a philosophical program. But empiricism is obviously “about” the natural sciences.*

French Rationalism + English Empiricism = Logical Empiricism

4.4.2 The Hermeneutic Tradition

“Continental” - Herder, Hegel, ... Foucault, Derrida, ...

Forster, “[Herder and the Birth of Modern Anthropology](#)”

4.5 Scientism

Remark 31 Putnam: “science-worship”

Remark 32 *Scientism as imperialistic Naturwissenschaften?*

Remark 33 *The major point: the Pragmatic Enlightenment dethroned “objectivity” or “Reality” as the source of unimpeachable external authority over our intellectual lives, just as the 17th century Enlightenment remove religion as the source of authority over our political and civic lives. It follows that pragmatism undermines science’s self image as the one true objective external source of authoritative knowledge. For pragmatism, science is one of many human vocabularies, with no legitimate claim to special authority as an external, independent arbiter of truth claims.*

Remark 34 *This has special significance for the human sciences. Among other things, it suggests social scientists should stop trying to mimic physics. Not for the traditional reason (i.e. that this is impossible), but because physics should not be granted such special status. Why should we take physics as the model science? Undoubtedly because it is so successful in practice, as predicting and manipulating the world. But practical success is not the same as epistemic authority.*

In fact it seems we are seeing a shift in the relative prestige of scientific fields; these days biology seems to be displacing physics as the model science.

Pinker, “[Science Is Not Your Enemy](#)”

Wieseltier, “[Crimes Against Humanities](#)”

Pinker, “[Why Nature & Nurture Won’t Go Away](#)”

Rorty, “[Philosophy-Envy](#)”

4.5.1 Physics Envy

For a long time physics was the model science; it is now being displaced by biology as the new model science. But why should the human sciences try to mimic other sciences? Why not treat them as legitimate sciences in their own right?

Part of the problem is the notion that quantitative measurement is the gold standard. No quantitative measurement, no science. But why did people come to think that? Probably because of the dazzling success of quantitative sciences like physics. But this is a false idol; there is nothing intrinsic to quantitative measurement or the “scientific method” that that can tell us that quantitative measurement is essential to science. In other words, science cannot set its own demarcational criteria; they must come from outside of science. Just because physics is grounded in quantitative measurement does not mean that quantitative measurement demarcates science. You can do perfectly good science without measurement. Should we not count the anthropologists analysis and description of myth and ritual as science? In the end it is about the production of knowledge, by whatever means.

Science as critical, rational thinking (analysis, but also imagination) v. replicable experiments v. field science. Consider the example of philology, which was the model for science in the 19th

century. Philology is not about discovering laws of nature (or of man or society), but about acquiring knowledge of languages and texts. It is (was?) highly disciplined, rational, critical, etc. - it has all the characteristics of scientific thinking, but it does not have replicable experiments. It involves very detailed collection and analysis of data, construction and “testing” of hypotheses, is open to revision, and so forth - all the things that science has, except for laboratory experiments.

Ditto for the “field sciences” like paleontology, astronomy, etc.

The point of reviewing the ways in which different research topics and programs count as science is to buttress the suggestion that the human sciences generally and social sciences in particular should spend a lot less energy trying to mimic the “hard” sciences. Instead they should concentrate on what can make them scientific in their own right, on answering the normative question of what counts as good science in the study of things human.

This inevitably involves philosophical questions of the sort that help us draw the distinction between philosophy and science.

4.6 Pragmatism and Science

Abstract

Pragmatism has been intimately connected to science from the very beginning; esp. evolution and statistics. (see Brandom) It has the potential to unify Geistes- and Naturwissenschaften. (see Price on global expressivism, pragmatism about causation, etc.)

From Empiricism to Pragmatism

Sellars, Quine, Wittgenstein and the demolition of Empiricism.

Empiricism smuggles the conceptual into perception. Pragmatism remedies this by first recognizing that “all perceptual awareness is conceptual” (Sellars, somewhere), and second, that the conceptual is fundamentally pragmatic (and inferential).

With respect to measurement, this means that the appeal to isomorphisms between mathematical and “empirical structures” is problematic. Empirical structures are already conceptual. They are not “given”. Pragmatism shifts the focus to the practices in virtue of which we are able to recognize the empirical as such in the first place. So the isomorphism of measurement theory must be supplemented by an account of the relation of the conceptual structure of empirical systems to the world. And this relation is essentially pragmatic, a matter of what we do, how we interact with our external environment, rather than an antecedently established correspondence between our concepts and the world.

This can be illustrated in the history of temperature measurement, where theory and its relation to measurement practice played the decisive role.

Remark 35 *For the moment this is organized by figure. It would probably be better to organize it by theme.*

4.6.1 Peirce, James, Dewey

4.6.2 Quine

4.6.3 Putnam, Davidson?

4.6.4 Rorty

Science as one among many vocabs, with no special claim to authority.

Remark 36 *Rorty on “value-free” and “hermeneutic” social science. Rorty, “[Method, Social Science, and Social Hope](#)”*

4.6.5 Price

Remark 37 *Price’s global expressivism: all vocabularies, including empirical vocabularies, are expressive rather than descriptive. Significance of this for Survey Research, esp. measurement.*

Remark 38 *Price’s pragmatism about causality: causes are not in nature. Our cause talk reflects our position in the world and our need to intervene and cope. Significance for Survey Research, esp. for the causal models common to most orthodox Survey Research.*

4.6.6 Deflationism

Abstract

Semantic and metaphysical deflationism works as well for validity as it does for truth and reference.

Remark 39 *Deflationism seems to depend essentially on some form of expressivism. Or maybe they amount to the same thing?*

- Deflationism about truth
- Deflationism about validity
- Deflationism about quantities

4.6.7 Causality and the Space of Reasons

Abstract

abstract

Abell, “Narrative Explanation”
 Crane and Brewer, “Mental Causation”
 Gross, “A Pragmatist Theory of Social Mechanisms”
 Jackson, “Mental Causation”
 Lowe, “The Causal Autonomy of the Mental”
 Lowe, “Non-Cartesian Substance Dualism and the Problem of Mental Causation”
 C. MacDonald and G. MacDonald, “Mental Causes and Explanation of Action”
 Menzies and Price, “Causation as a Secondary Quality”
 Morris, “Causes of Behaviour”
 Williamson, “The Broadness of the Mental”

4.6.8 Hypothetical Entities

4.6.9 Personal v. Subpersonal

5 Reconciliation: A Pragmatic Model of Survey Research

5.1 The Deontic Scorekeeping Model of Discursive Practice and Survey Research

Abstract

Why the deontic scorekeeping model is preferable to others, esp. the cognitive model.

Remark 40 *It's a model of discursive, that is rational, practice. Contrast this with most models on offer which tend to focus on subpersonal processes; hence the prevalence of talk about “the survey process”, the “response process”, etc.*

5.2 A Quality Assurance Model for Survey Research

Abstract

abstract

6 Notes

Scientism as a kind of code-breaking, as if scientists work in a virtual Bletchley Park, toiling away to crack nature's code.

6.1 Evolution

Instead of “the QA process”, the proper object of investigation is the local evolution of discourse.

EM studies local produced order. It may come up with a structural description. But locally produced order is the outcome of an essentially evolutionary process - the mutual adaptation of the participants

to each other and the context. Also, any such model may not (probably will not) generalize. But what does generalize is the evolutionary mechanism itself, just like in biology.

Rational selection as the mechanism of the evolution of discursive performances. What accounts for the deontic attitudes we adopt regarding performances? Brandom's account describes the architecture of such posturings and the significances the institute. But it does not really address the logic of discourse as an evolutionary process.

The idea is that Brandom provides an account of discourse qua rational action. Different attitudes are endorsed or undertaken for reasons - that is the source or ground of the intelligibility of discursive practice. So if we view the unfolding of discourse as being governed by the logic of evolution, we can treat Brandom's sort of rational pragmatism as the selection mechanism that accounts for why some attitudes (meanings) survive (are endorsed) and others do not. Meanings that survive must fit into the space of reasons - they must be assertable and justifiable, even if the participants are unable to explicitly articulate this. This makes the evolution of discourse intelligible as a rational process, rather than a natural process. Responses to questions are not explicable as effects caused by "true values" or the like; this would make them fundamentally non-rational. Or to borrow a bon mot from Garfinkel, this would make respondents "rational dopes".

Similar language: "negotiation", e.g. "...I suggest that the content of talk indicates that imposed hierarchies are continually re-negotiated..." Negotiation as rational evolution?

The "true score" and other orthodox models account for sentience, not sapience.

6.2 Verum Factum

Cartesianism (spectator, etc.) inspection, discovery, certainty, foundationism (external foundation grounding knowledge) v.

Verum Factum, geneological/historical, following growth/development, not certainty but ???; no foundationism, no privileged vocab, no external source of authority

Critical notions: authority. For evidence etc. key idea is authority - the only kind of authority is the kind we assent to. So the question is what do we treat as authoritative and why, rather than how can we discover the One True external foundational source of authority and learn to speak its language

Critical notions: vocabulary. Regardless of what there is, we can only talk about it by using vocabs.

Relevance to SR: we make our truths, by engaging in dialog with respondents in order to teach/train them to understand what we want. In other words we work to make our scorecards converge. We can never be sure that researchers and respondents understand each other, have the same interpretations of qx text, etc. But we can do what nature does in evolution and learning: institute a cyclic process of experiment, feedback, and correction. This is operational even at the most simple and basic level of communication. So we can use this fact to our advantage.

Communication interactions as not essentially different from processes of evolution and learning. Evolutionary process tend to coordinate organism and environment; learning processes adapt the learner to the task environment, etc. Any discursive exchange - even simple greetings, etc. - does the same sort of thing: coordinate and mutually adjust the parties to the exchange.

6.3 Rational Evidence

Evidence-Based Rational SR

RCT: isolate the causal factor that links Treatment to Outcome

The mistake made by orthodox SR (shown by its vocab of measurement, error, etc.) is that it confuses the space of causes and the space of reasons.

In RCT, we observe a stimulus followed by a response (T followed by O) and postulate a causal relation. In SR, we observe a Q performance followed by a R performance. In fact this is an idealization since Q and R cannot be isolated - they are both joint performances. Ignore that for now; the point is that what makes them intelligible as performances is the space of reasons, not causes. That is, as discursive episodes they are essentially rational in a way the T-O trials are not. By definition, "rational" means involving concepts. Stimulus-response does not involve concepts and so is not rational in this favored sense. The natural world may be lawful, but it is not rational.

So SR should abandon the orthodox vocab of measurement, etc. in favor of one involving rationality. What would "evidence-based" mean, then? Not the kind of evidence involved in natural science, since such evidence does not involve concepts and thus meaning. Instead evidence inescapably involves meaning and understanding. What counts as evidence is what we count as a rational explanation or story. And this necessarily involves the perspective of the participants - it is their rationality, their giving and asking for reasons, that provides the observational basis of evidence.

One consequence: Qx does not involve measurement. SR can use stats to statistically measure the collected data, but that is quite separate from whether the data measure anything. So you can say that x% of respondents pick option X, but that does not mean that you have measured the distribution of "true values" of some latent variable. What you have measured is a distribution of deontic scores, or discursive postures. There is no warrant for claiming that each member of the x% means the same thing by picking X.

6.4 Misc

1. What is a question? Better: what counts as a question, what is it to ask a question?
 2. Ditto for answer.
- Q and A as parts of a whole (holistic view)
Q token v. Q performance, etc.

6.5 Erotetic Discursive Practice

EDP as production of data rather than discovery of truth

6.6 Replication

Goal is replication. Compare: blood work, e.g. measuring cholesterol. The measuring apparatus reacts to the sample, not the other way around. For EDP, respondent reacts to the question, so the question is

analogous to the blood sample. The response is a kind of measurement of the question, not the other way around.

Replicability means same setup, same experimental conditions; in EDP this means replication of conceptual structure, which is accomplished by the dialog preceding the question. Traditionally, "ask the same question"; in practice this is impossible, since what counts is not the question text but respondent's grasp of the sense. So the "experimental setup" should be viewed as the work of teaching the respondent what the sense of the question is. Survey interviewing is essentially interventionist, but this is not necessarily a bad thing, since lab experiments are too - they "intervene" to set up experimental "initial conditions". The difference is that setting up initial conditions ("same meaning") in question asking means tutoring the respondent.

6.7 Myths and Mythologies

- The Myth of Question Independence says that the meaning of a question is independent of context. But the meaning of a question is always dependent on what came before it.
- Myth of Autonomy. Interviewer and Respondent.
- Myth of Error

6.8 Dopes

Garfinkel's dopes - cultural, judgmental, psychological

Dehumanization. Orthodox Survey Research (OSR) dehumanizes participants. The R is a sampling unit. The mythology of OSR measurement treats the human R as a natural object to be measured rather than a person.

Appendices

A Recommended Reading

For readers unfamiliar with contemporary pragmatism:

1. Bacon, *Pragmatism: an introduction*
2. Robert B. Brandom, "Introduction: From German Idealism to American Pragmatism - and Back"
3. Putnam, "The Three Enlightenments"
4. W. V. Quine, "Two Dogmas of Empiricism"
5. Sellars, *Empiricism and the Philosophy of Mind*
6. Davidson, "A Nice Derangement of Epitaphs"
7. Putnam, "The Collapse of the Fact/Value Dichotomy"
8. Rorty, *Philosophy and the Mirror of Nature*
9. R. Brandom, *Articulating Reasons : An Introduction to Inferentialism*
10. Price, "Expressivism for Two Voices"
11. Price, "Truth as Convenient Friction"

A.1 Pragmatism - Overviews

Bacon, *Pragmatism: an introduction* A good overview of contemporary pragmatism, covering Quine, Putnam, etc. Probably the best place to start for those unfamiliar with contemporary pragmatism.

R. J. Bernstein, *The Pragmatic Turn*

R. Brandom, *Perspectives on Pragmatism : Classical, Recent, and Contemporary*

Dickstein, *The Revival of Pragmatism*

Kraut, "Varieties of Pragmatism"

Putnam, "Pragmatism" Addresses what pragmatism has to say about verificationism.

Schatzki, Cetina, and Savigny, *The Practice Turn in Contemporary Theory*

A.2 Pragmatism Readers

Many collections of writings from the Pragmatist tradition have been published. Here are just a few:

Menand, *Pragmatism: a Reader*

Haack and R. E. Lane, *Pragmatism, old & new: selected writings*

Misak, *New Pragmatists*

Talisie and Aikin, *The pragmatism reader: from Peirce through the present*

A.3 (Anti-) Cognitivism

[C]ognitivism, as an account of human thought and understanding, is deeply false.

Haugeland, "Closing the last loophole: joining forces with Vincent Descombes"

A.3.1 Classic Cognitivism

"Classic" or first generation cognitivism is characterized by three ideas: computation, representation, and the mental. Roughly, cognition is construed as mental computational processing of representations (symbols).

Descombes, *The Mind's Provisions: a Critique of Cognitivism* A major and devastating critique of classic cognitivism. Descombes' positive account of "mindedness", intentionality, etc. dovetails quite nicely with Brandom's; see R. Brandom, "From a critique of cognitive internalism to a conception of objective spirit" and Descombes, "Replies"

Robert B Brandom, "How Analytic Philosophy has Failed Cognitive Science"

R. Brandom, "From a critique of cognitive internalism to a conception of objective spirit" Comment on Descombes, *The Mind's Provisions: a Critique of Cognitivism*

Jerry A Fodor, *The Language of Thought* The classic philosophical account of cognitivism.

Jerry A Fodor, *LOT 2: the Language of Thought Revisited*

Haugeland, "Closing the last loophole: joining forces with Vincent Descombes" Comment on Descombes, *The Mind's Provisions: a Critique of Cognitivism*

Rorty, "The brain as hardware, culture as software" Comment on Descombes

Taylor, "Descombes' Critique of Cognitivism" Comment on Descombes

Descombes, **“Replies”** Replies to comments

Kitzinger, **“After post-cognitivism”**

A.3.2 Second-generation Cognitivism

Common labels: embodied, embedded, extended, enacted, distributed, situated cognition; the extended mind, the social brain, etc.:

Adams, **“Embodied cognition”**

Cash, **“Cognition without borders: “Third wave” socially distributed cognition and relational autonomy”**

A. Clark, ***Being there : putting brain, body, and world together again***

A. Clark and Chalmers, **“The Extended Mind”** The original “extended mind” article.

Dunbar, **“The Social Brain Hypothesis”**

Ignatow, **“Theories of Embodied Knowledge: New Directions for Cultural and Cognitive Sociology”**

Kono, **“The ‘extended mind’ approach for a new paradigm of psychology”**

Leidlmair, ***After Cognitivism: A Reassessment of Cognitive Science and Philosophy*** A collection of papers dealing with the reassessment of thinking in Cognitive Science and in Philosophy today, with special emphasis on embodied and embedded cognition.

Varela, Thompson, and Rosch, ***The Embodied Mind***

Walter, **“Situated Cognition: A Field Guide to Some Open Conceptual and Ontological Issues”** A very readable overview of first and second generation cognitivism.

Wilson, **“Six views of embodied cognition”**

A.4 Pragmatism and the Social Sciences

Baert, **“Towards a Pragmatist-Inspired Philosophy of Social Science”**

Baert, ***Philosophy of the Social Sciences***

Emirbayer and D. W. Maynard, **“Pragmatism and Ethnomethodology”**

Kivinen and Piironen, **“The Relevance of Ontological Commitments in Social Sciences”**

Kivinen and Piironen, **“Sociologizing Metaphysics and Mind”**

Wolfe, **“The Missing Pragmatic Revival in American Social Science”**

A.5 Major Figures

A.5.1 Robert Brandom

Making it explicit: reasoning, representing, and discursive commitment His *magnum opus*.

Articulating Reasons : An Introduction to Inferentialism A much shorter summary of the key ideas in MIE.

Perspectives on Pragmatism : Classical, Recent, and Contemporary

“Classical American Pragmatism: The Pragmatist Enlightenment - and Its Problematic Semantics”

“Analyzing Pragmatism: Pragmatics and Pragmatisms”

A.5.2 Donald Davidson

“A Nice Derangement of Epitaphs” “There is no such a thing as a language, not if a language is anything like what many philosophers and linguists have supposed.”

A.5.3 Huw Price

Price started out as a philosopher of science. In recent years he has focused on the problems of naturalism, expressivism, etc. He is associated with:

- Global expressivism
- Subject naturalism
- Causal perspectivism

Expressivism, pragmatism and representationalism

“Naturalism without representationalism”

“Pluralism, ‘world’, and the primacy of science”

A.5.4 Hilary Putnam

“The Meaning of ‘Meaning’” Contains Putnam’s famous “twin-earth” thought experiment, and his famous conclusion “meanings just ain’t in the head”.

“Pragmatism”

A.5.5 Willard Van Orman Quine

“Two Dogmas of Empiricism” Quine’s celebrated demolition of the distinction between analytic and synthetic sentences. A must-read.

Word and object Chapter 2, *Translation and Meaning*, introduces the famous *gavagai*.

A.5.6 Richard Rorty

Philosophy and the Mirror of Nature

“Method, Social Science, and Social Hope”

“Representation, Social Practise, and Truth”

A.5.7 Wilfrid Sellars

Empiricism and the Philosophy of Mind Sellars’ celebrated attack on the “Myth of the Given”. A must-read.

A.5.8 Ludwig Wittgenstein

Philosophical Investigations

B Bibliography

Abell: Narrative Explanation

Peter Abell. “Narrative Explanation: An Alternative to Variable-Centered Explanation?” In: *Annual Review of Sociology* 30 (Jan. 2004), pp. 287–310. url: <http://www.jstor.org/stable/29737695> (visited on 12/08/2013) (cit. on p. 26).

Abstract: The nature of narrative explanations is explored as an alternative to the better established variable-centered explanations. Narratives are conceived as di-graphs where the nodes are states of the world and the arcs are actions (causes). Comparative narratives are understood as mappings between di-graphs. Ethnographic and historical explanations, where the number of cases is small and causality complex, may depend upon a narrative depiction.

Adams: Embodied cognition

Fred Adams. “Embodied cognition”. In: *Phenom Cogn Sci* 9.4 (Dec. 2010), pp. 619–628. doi: [10.1007/s11097-010-9175-x](https://doi.org/10.1007/s11097-010-9175-x). (Visited on 01/26/2014) (cit. on p. 32).

Abstract: Embodied cognition is sweeping the planet. On a non-embodied approach, the sensory system informs the cognitive system and the motor system does the cognitive system's bidding. There are causal relations between the systems but the sensory and motor systems are not constitutive of cognition. For embodied views, the relation to the sensori-motor system to cognition is constitutive, not just causal. This paper examines some recent empirical evidence used to support the view that cognition is embodied and raises questions about some of the claims being made by supporters.

Andreouli: Identity, Positioning and Self-Other Relations

E. Andreouli. "Identity, Positioning and Self-Other Relations". In: *Papers on Social Representations* 19.1 (2010), pp. 14.1–14.13.

Abstract: This paper contributes to our understanding of the relation between social representations and identity using the concept of position. For this purpose two conceptualisations of the terms position and positioning are explored: Duveen's theorisation of identity as a position towards a social representation and positioning theory's concept of positions as discursive achievements. It is argued that the two conceptualisations can be integrated to provide a clearer view of the impact of recognition and legitimacy in identity processes. This claim is supported by a case study derived from an interview study on naturalisation and identity in the United Kingdom.

Bacon: Pragmatism: an introduction

Michael Bacon. *Pragmatism: an introduction*. Cambridge, UK ; Malden, MA: Polity, 2012 (cit. on pp. 11, 18, 30).

Abstract: *Pragmatism: An Introduction* provides an account of the arguments of the central figures of the most important philosophical tradition in the American history of ideas, pragmatism. This wide-ranging and accessible study explores the work of the classical pragmatists Charles Sanders Peirce, William James and John Dewey, as well as more recent philosophers including Richard Rorty, Richard J. Bernstein, Cheryl Misak, and Robert B. Brandom. Michael Bacon examines how pragmatists argue for the importance of connecting philosophy to practice. In so doing, they set themselves in opposition to many of the presumptions that have dominated philosophy since Descartes. The book demonstrates how pragmatists reject the Cartesian spectator theory of knowledge, in which the mind is viewed as seeking accurately to represent items in the world, and replace it with an understanding of truth and knowledge in terms of the roles they play within our social practices. The book explores the diverse range of positions that have engendered marked and sometimes acrimonious disputes amongst pragmatists. Bacon identifies the themes underlying these differences, revealing a greater commonality than many commentators have recognized. The result is an illuminating narrative of a rich philosophical movement that will be of interest to students in philosophy, political theory, and the history of ideas.

Baert: Philosophy of the Social Sciences

Patrick Baert. *Philosophy of the Social Sciences: Towards Pragmatism*. Polity, Nov. 2005. isbn: 9780745622477 (cit. on pp. 18, 32).

Abstract: In this ground-breaking new text, Patrick Baert analyses the central perspectives in the philosophy of social science, critically investigating the work of Durkheim, Weber, Popper, critical realism, critical theory, and Rorty's neo pragmatism. Places key writers in their social and political contexts, helping to make their ideas meaningful to students. Shows how these authors' views have practical uses in empirical research. Lively approach that makes complex ideas understandable to upper-level students, as well as having scholarly appeal.

Baert: Pragmatism as a Philosophy of the Social Sciences

Patrick Baert. "Pragmatism as a Philosophy of the Social Sciences". en. In: *European Journal of Social Theory* 7.3 (Aug. 2004), pp. 355–369. doi: [10.1177/1368431004044198](https://doi.org/10.1177/1368431004044198). (Visited on 12/24/2012) (cit. on p. 18).

Abstract: This article introduces and critically analyses Richard Rorty's neo-pragmatism as a contribution to the philosophy of social sciences. Although Rorty has written little about philosophy of social sciences as such, it is argued that his overall philosophical position has significant ramifications for this subject area. The first part of the article sets out the implications of Rorty's neo-pragmatism for various issues in the philosophy of social sciences, for instance, the doctrine of naturalism, the nineteenth-century Methodenstreit, the philosophical tenets of Marxism, and the relatively recent wave of post-structuralism. The second part presents a constructive critique of Rorty's neopragmatist philosophy of social sciences. Although critical of some aspects of Rorty's argument, it is argued that his stance could provide a base for a fruitful view of social sciences, aiming at enlarging human potentialities rather than representation.

Baert: Pragmatism, Realism and Hermeneutics

Patrick Baert. "Pragmatism, Realism and Hermeneutics". In: *Foundations of Science* 8.1 (Mar. 2003), pp. 89–106. doi: [10.1023/A:1022445814115](https://doi.org/10.1023/A:1022445814115). url: <http://link.springer.com.proxy.uchicago.edu/article/10.1023/A:1022445814115> (visited on 12/08/2012) (cit. on p. 18).

Abstract: This paper explores the methodological consequences of American Pragmatism for the social sciences. It also criticises some rival perspectives on methodology of social research, in particular falsificationist, realist and some anti-naturalist views. It is argued that American Pragmatism shows striking affinities with the genealogical method of history and the reflexive turn in cultural anthropology. It is also argued that Pragmatism forces us to think differently about the relationship between theory and empirical research.

Baert: Realism versus Pragmatism – an Introduction

Patrick Baert. "Realism versus Pragmatism – an Introduction". en. In: *Foundations of Science* 8.1 (Mar. 2003), pp. 1–2. doi: [10.1023/A:1022491321867](https://doi.org/10.1023/A:1022491321867). url: <http://link.springer.com.proxy.uchicago.edu/article/10.1023/A:1022491321867> (visited on 01/27/2013) (cit. on p. 18).

Baert: Towards a Pragmatist-Inspired Philosophy of Social Science

Patrick Baert. "Towards a Pragmatist-Inspired Philosophy of Social Science". In: *Acta Sociologica* 48.3 (Sept. 2005), pp. 191–203. doi: [10.2307/20059943](https://doi.org/10.2307/20059943) (cit. on pp. 10, 18, 32).

Abstract: The article reflects on the possibility of a social science that aims at self-referential knowledge-acquisition. This form of social research explores and questions deep-seated presuppositions prevalent in contemporary culture and strives to become aware of other forms of life. This view of social sciences, therefore, is perfectly in line with the pragmatist perspective that language and knowledge, rather than acts of representation, allow people to increase the scope of human possibilities. Various forms of social research, in a wide range of disciplines, have already explored this self-referential knowledge: for instance, genealogical history and sociology, post-processual archaeology and the critical turn in anthropology. The article locates this self-referential knowledge within the context of contemporary American pragmatism (e.g. Rorty, Bernstein). It is argued that this type of knowledge ties in with the radical tradition in neo-pragmatism, in particular its anti-foundationalist notion of critique.

Bakhtin: Speech genres and other late essays

Mikhail Mikhaïlovich Bakhtin. *Speech genres and other late essays*. Trans. by Vern W. McGee. University of Texas Press, 1986. isbn: 9780292775602.

Bakhtin: The Problem of Speech Genres

Mikhail Mikhaïlovich Bakhtin. "The Problem of Speech Genres". In: *Speech Genres and Other Late Essays*. University of Texas Press, 1986, pp. 60–102. isbn: 9780292775602.

Barnes: Ethnomethodology as Science

Barry Barnes. "Ethnomethodology as Science". In: *Social Studies of Science* 15.4 (Nov. 1985). ArticleType: book-review / Full publication date: Nov., 1985 / Copyright © 1985 Sage Publications, Ltd., pp. 751–762. issn: 0306-3127. url: <http://www.jstor.org/stable/285404> (visited on 01/22/2012) (cit. on p. 18).

File: <JSTORFullTextPDF:/Users/gar/work/bibliography/zotero/storage/75MNQGPF/Barnes-1985-EthnomethodologyasScience.pdf:application/pdf>.

Bennett: Consequences That Cannot Be Avoided

Randy Elliot Bennett. "Consequences That Cannot Be Avoided: A Response to Paul Newton". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 30–32. doi: [10.1080/15366367.2012.686865](https://doi.org/10.1080/15366367.2012.686865).

Berard: Rethinking Practices and Structures

T. J. Berard. "Rethinking Practices and Structures". In: *Philosophy of the Social Sciences* 35.2 (June 2005), pp. 196–230. doi: [10.1177/0048393105275290](https://doi.org/10.1177/0048393105275290) (cit. on p. 18).

Abstract: Social theory remains puzzled by the relation between practices and structures, or the link between ‘micro’ and ‘macro’. Grand theorists including Giddens and Bourdieu have gained distinction for their writings on these questions, trying to marry insights and concerns of a ‘micro’ sociological nature with traditional ‘macro’ structural questions including inequality, power relations, and social reproduction. These theorists arguably fail, however, in their attempts to move social theory beyond traditional dualisms. Relevant but neglected contributions from ethnomethodology are introduced and compared to the work of Giddens and Bourdieu in an attempt to identify and outline an approach to practices and structures that more reliably avoids problems of dualism and reification, and at the same time offers an understanding of structures and their relations to practices that can be much more closely grounded in empirical studies.

R. Bernstein: Whatever Happened to Naturalism?

Richard Bernstein. “Whatever Happened to Naturalism?” In: *Proceedings and Addresses of the American Philosophical Association* 69.2 (Nov. 1995), pp. 57–76. issn: 0065-972X. doi: [10 . 2307 / 3130496](https://doi.org/10.2307/3130496). url: <http://www.jstor.org/stable/3130496> (visited on 01/24/2014).

File: <JSTORFullTextPDF:/Users/gar/work/bibliography/zotero/storage/4GIE55B9/Bernstein-1995-WhateverHappenedtoNaturalism.pdf:application/pdf>.

R. J. Bernstein: The Pragmatic Turn

Richard J. Bernstein. *The Pragmatic Turn*. Polity, Apr. 2010 (cit. on p. 30).

Abstract: In this major new work, Richard J. Bernstein argues that many of the most important themes in philosophy during the past one hundred and fifty years are variations and developments of ideas that were prominent in the classical American pragmatists: Charles S. Peirce, William James, John Dewey and George H Mead. Pragmatism begins with a thoroughgoing critique of the Cartesianism that dominated so much of modern philosophy. The pragmatic thinkers reject a sharp dichotomy between subject and object, mind-body dualism, the quest for certainty and the spectator theory of knowledge. They seek to bring about a sea change in philosophy that highlights the social character of human experience and normative social practices, the self-correcting nature of all inquiry, and the continuity of theory and practice. And they-especially James, Dewey, and Mead-emphasize the democratic ethical-political consequences of a pragmatic orientation. Many of the themes developed by the pragmatic thinkers were also central to the work of major twentieth century philosophers like Wittgenstein and Heidegger, but the so-called analytic-continental split obscures this underlying continuity. Bernstein develops an alternative reading of contemporary philosophy that brings out the persistence and continuity of pragmatic themes. He critically examines the work of leading contemporary philosophers who have been deeply influenced by pragmatism, including Hilary Putnam, Jürgen Habermas, Richard Rorty, and Robert Brandom, and he explains why the discussion of pragmatism is so alive, varied and widespread. This lucid, wide-ranging book by one of America’s leading philosophers will be compulsory reading for anyone who wants to understand the state of philosophy today.

Biemer et al.: Measurement Errors in Surveys

Paul P. Biemer et al., eds. *Measurement Errors in Surveys*. Wiley, Dec. 1991.

Bilmes: Ethnomethodology, Culture, and Implicature: Toward an Empirical Pragmatics

Jack Bilmes. "Ethnomethodology, Culture, and Implicature: Toward an Empirical Pragmatics". In: *Pragmatics* 3.4 (Feb. 2010). issn: 1018-2101. url: <http://elanguage.net/journals/index.php/pragmatics/article/viewArticle/181>.

Black: EPMA Professionals—Servants or Masters?

Paul Black. "EPMA Professionals—Servants or Masters?" In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 33–37. doi: [10.1080/15366367.2012.677342](https://doi.org/10.1080/15366367.2012.677342).

Blackburn: Invited Introduction

Simon Blackburn. "Invited Introduction: Finding Psychology". In: *The Philosophical Quarterly* 36.143 (Apr. 1986), pp. 111–122. doi: [10.2307/2219763](https://doi.org/10.2307/2219763). url: <http://www.jstor.org/stable/2219763> (visited on 12/08/2013) (cit. on p. 18).

Blackburn: The Steps from Doing to Saying

Simon Blackburn. "The Steps from Doing to Saying". In: *Proceedings of the Aristotelian Society (Hardback)* 110.1pt1 (2010), pp. 1–13. doi: [10.1111/j.1467-9264.2010.00276.x](https://doi.org/10.1111/j.1467-9264.2010.00276.x). url: <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9264.2010.00276.x/abstract> (visited on 12/08/2013) (cit. on p. 18).

Abstract: In this paper I consider recent developments in neo-pragmatism, and in particular the degree of convergence between such approaches and those placing greater emphasis on truth and truth-makers. I urge that although a global pragmatism has its merits, it by no means closes the space for a more Wittgensteinian, finer-grained, approach to the diversity of functions served by modal, causal, moral, or other modes of thought.

Blinkhorn: Past imperfect, future conditional

S. F. Blinkhorn. "Past imperfect, future conditional: Fifty years of test theory". In: *British Journal of Mathematical and Statistical Psychology* 50.2 (1997), pp. 175–185. doi: [10.1111/j.2044-8317.1997.tb01139.x](https://doi.org/10.1111/j.2044-8317.1997.tb01139.x).

Abstract: This essay takes a broad view of developments in test theory over the past 50 years from the point of view of a test constructor. Increasing theoretical and technical sophistication has not, in general, resulted in commensurate improvements in test design. Contemporary test theory, with its emphasis on statistical rather than psychological models, has become inaccessible to the majority of test users, and predominantly reflects educational rather than psychological concerns. Real progress may depend on the emergence of a new and radical reconceptualization.

Bloor: Wittgenstein and the priority of practice

David Bloor. "Wittgenstein and the priority of practice". In: *The Practice Turn in Contemporary Theory*. Routledge, 2001, pp. 103–114 (cit. on p. 18).

Blumer: Sociological Analysis and the "Variable"

Herbert Blumer. "Sociological Analysis and the "Variable"". In: *American Sociological Review* 21.6 (Dec. 1956), pp. 683–690. doi: [10.2307/2088418](https://doi.org/10.2307/2088418).

Borsboom: The attack of the psychometricians

Denny Borsboom. "The attack of the psychometricians". In: *Psychometrika* 71.3 (Sept. 2006), pp. 425–440. doi: [10.1007/s11336-006-1447-6](https://doi.org/10.1007/s11336-006-1447-6).

Abstract: This paper analyzes the theoretical, pragmatic, and substantive factors that have hampered the integration between psychology and psychometrics. Theoretical factors include the operationalist mode of thinking which is common throughout psychology, the dominance of classical test theory, and the use of "construct validity" as a catch-all category for a range of challenging psychometric problems. Pragmatic factors include the lack of interest in mathematically precise thinking in psychology, inadequate representation of psychometric modeling in major statistics programs, and insufficient mathematical training in the psychological curriculum. Substantive factors relate to the absence of psychological theories that are sufficiently strong to motivate the structure of psychometric models. Following the identification of these problems, a number of promising recent developments are discussed, and suggestions are made to further the integration of psychology and psychometrics.

Borsboom: Whose Consensus Is It Anyway?

Denny Borsboom. "Whose Consensus Is It Anyway? Scientific Versus Legalistic Conceptions of Validity". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 38–41. doi: [10.1080/15366367.2012.681971](https://doi.org/10.1080/15366367.2012.681971).

Borsboom et al.: Why Psychometrics is Not Pathological A Comment on Michell

Denny Borsboom and Gideon J. Mellenbergh. "Why Psychometrics is Not Pathological A Comment on Michell". In: *Theory & Psychology* 14.1 (Feb. 2004), pp. 105–120. doi: [10.1177/0959354304040200](https://doi.org/10.1177/0959354304040200).

Abstract: This paper comments on an article by Michell (2000), who argues that psychometrics should be qualified as pathological science for two reasons: (a) psychometrics assumes psychological attributes to be quantitative without testing this hypothesis; and (b) the fact that this hypothesis is not tested is disguised. Michell further argues that the hypothesis should be tested using additive conjoint measurement theory. Although relevant to classical test theory, Michell's arguments do not apply to psychometrics in general. In particular, they are largely irrelevant to item response theory models. We show that these models result from introducing probabilistic relations, which are needed to deal with measurement error, and not from a breakdown in critical inquiry, as Michell suggests. Moreover, at least one class of these models can be formulated in terms of additive conjoint measurement theory, which

renders Michell's call for the additive conjoint model in need of qualification. Finally, item response theory models are routinely tested against empirical data, and although the assumption that an attribute is quantitative cannot be tested directly, such tests do address the conjunction of this assumption and other model assumptions. We conclude that, although Michell's arguments are important to psychological measurement, they are largely irrelevant to item response theory. In fact, we argue that they can be phrased in terms of this theory in a natural way.

Borsboom et al.: The theoretical status of latent variables

Denny Borsboom, Gideon J. Mellenbergh, and Jaap van Heerden. "The theoretical status of latent variables". In: *Psychological Review* 110.2 (2003), pp. 203–219. doi: [10.1037/0033-295X.110.2.203](https://doi.org/10.1037/0033-295X.110.2.203).

Abstract: This article examines the theoretical status of latent variables as used in modern test theory models. First, it is argued that a consistent interpretation of such models requires a realist ontology for latent variables. Second, the relation between latent variables and their indicators is discussed. It is maintained that this relation can be interpreted as a causal one but that in measurement models for interindividual differences the relation does not apply to the level of the individual person. To substantiate intraindividual causal conclusions, one must explicitly represent individual level processes in the measurement model. Several research strategies that may be useful in this respect are discussed, and a typology of constructs is proposed on the basis of this analysis. The need to link individual processes to latent variable models for interindividual differences is emphasized.

Bradburn et al.: Asking Questions

Norman M. Bradburn, Seymour Sudman, and Brian Wansink. *Asking Questions: The Definitive Guide to Questionnaire Design : for Market Research, Political Polls, and Social and Health Questionnaires*. John Wiley & Sons, Apr. 2004.

Abstract: "The best single source about the present state of knowledge of questionnaire construction."-ChoiceSince it was first published more than twenty-five years ago, *Asking Questions* has become a classic guide for designing questionnaires-the most widely used method for collecting information about people's attitudes and behavior. An essential tool for market researchers advertisers, pollsters, and social scientists, this thoroughly updated and definitive work combines time-proven techniques with the most current research, findings, and methods. The book presents a cognitive approach to questionnaire design and includes timely information on the Internet and electronic resources. Comprehensive and concise, *Asking Questions* can be used to design questionnaires for any subject area, whether administered by telephone, online, mail, in groups, or face-to-face. The book describes the design process from start to finish and is filled with illustrative examples from actual surveys. *Asking Questions* guides you through how to Determine what information is neededPhrase questions to minimize bias and distortionObtain successful questions from existing questionnairesControl the level of threatOrder questions to encourage responseSelect the best administration methodAdapt questions and format to specific situationsTest and validate the completed surveyEvaluate and revise the questionnaire for improved results.

Bramley: “Measurement” and “Construct” Need to Be Clarified First. Commentary on Newton, P. E. “Clarifying the Consensus Definition of Validity”

Tom Bramley. ““Measurement” and “Construct” Need to Be Clarified First. Commentary on Newton, P. E. “Clarifying the Consensus Definition of Validity””. In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 42–45. doi: [10.1080/15366367.2012.677344](https://doi.org/10.1080/15366367.2012.677344).

R. Brandom: Articulating Reasons : An Introduction to Inferentialism

Robert Brandom. *Articulating Reasons : An Introduction to Inferentialism*. Cambridge, Mass.; London: Harvard University Press, 2001. isbn: 0674006925 9780674006928 0674001583 9780674001589 (cit. on pp. [17](#), [19](#), [30](#), [33](#)).

R. Brandom: Between saying and doing : towards an analytic pragmatism

Robert Brandom. *Between saying and doing : towards an analytic pragmatism*. Oxford; New York: Oxford University Press, 2008. isbn: 9780199542871 0199542872 (cit. on pp. [17](#), [19](#)).

R. Brandom: From a critique of cognitive internalism to a conception of objective spirit

Robert Brandom. “From a critique of cognitive internalism to a conception of objective spirit: reflections on Descombes’ Anthropological Holism”. In: *Inquiry* 47.3 (2004), pp. 236–253. doi: [10.1080/00201740410006357](https://doi.org/10.1080/00201740410006357) (cit. on pp. [15](#), [31](#)).

R. Brandom: Making it explicit: reasoning, representing, and discursive commitment

Robert Brandom. *Making it explicit: reasoning, representing, and discursive commitment*. Harvard University Press, June 1998. isbn: 9780674543300 (cit. on pp. [18](#), [33](#)).

Abstract: What would something unlike us—a chimpanzee, say, or a computer—have to be able to do to qualify as a possible knower, like us? To answer this question at the very heart of our sense of ourselves, philosophers have long focused on intentionality and have looked to language as a key to this condition. Making It Explicit is an investigation into the nature of language—the social practices that distinguish us as rational, logical creatures—that revises the very terms of this inquiry. Where accounts of the relation between language and mind have traditionally rested on the concept of representation, this book sets out an alternate approach based on inference, and on a conception of certain kinds of implicit assessment that become explicit in language. Making It Explicit is the first attempt to work out in detail a theory that renders linguistic meaning in terms of use—in short, to explain how semantic content can be conferred on expressions and attitudes that are suitably caught up in social practices. At the center of this enterprise is a notion of discursive commitment. Being able to talk—and so in the fullest sense being able to think—is a matter of mastering the practices that govern such commitments, being able to keep track of one’s own commitments and those of others. Assessing the pragmatic significance of speech acts is a matter of explaining the explicit in terms of the implicit. As he traces the inferential structure of the social practices within which things can be made conceptually explicit, the author defines the distinctively

expressive role of logical vocabulary. This expressive account of language, mind, and logic is, finally, an account of who we are.

R. Brandom: Perspectives on Pragmatism : Classical, Recent, and Contemporary

Robert Brandom. *Perspectives on Pragmatism : Classical, Recent, and Contemporary*. Cambridge, Mass.: Harvard University Press, 2011 (cit. on pp. 17, 19, 30, 33).

R. Brandom: Précis of Making It Explicit

Robert Brandom. “Précis of Making It Explicit”. In: *Philosophy and Phenomenological Research* 57.1 (Mar. 1997), pp. 153–156. doi: [10.2307/2953784](https://doi.org/10.2307/2953784) (cit. on pp. 17, 19).

R. Brandom: The Pragmatist Enlightenment (and its Problematic Semantics)

Robert Brandom. “The Pragmatist Enlightenment (and its Problematic Semantics)”. In: *European Journal of Philosophy* 12.1 (2004), pp. 1–16. doi: [10.1111/j.0966-8373.2004.00196.x](https://doi.org/10.1111/j.0966-8373.2004.00196.x) (cit. on p. 19).

R. Brandom: The Social Anatomy of Inference

Robert Brandom. “The Social Anatomy of Inference”. In: *Philosophy and Phenomenological Research* 53.3 (1993), pp. 661–666. doi: [10.2307/2108089](https://doi.org/10.2307/2108089) (cit. on p. 19).

Robert B. Brandom: Analyzing Pragmatism: Pragmatics and Pragmatisms

Robert B. Brandom. “Analyzing Pragmatism: Pragmatics and Pragmatisms”. In: *Perspectives on Pragmatism*. Cambridge Mass. ; London: Harvard University Press, 2011 (cit. on pp. 19, 33).

Robert B. Brandom: Classical American Pragmatism: The Pragmatist Enlightenment - and Its Problematic Semantics

Robert B. Brandom. “Classical American Pragmatism: The Pragmatist Enlightenment - and Its Problematic Semantics”. In: *Perspectives on Pragmatism*. Cambridge Mass. ; London: Harvard University Press, 2011 (cit. on pp. 19, 33).

Robert B Brandom: How Analytic Philosophy has Failed Cognitive Science

Robert B Brandom. “How Analytic Philosophy has Failed Cognitive Science”. English. In: *Reason in philosophy*. Cambridge, Mass. [etc.]: The Belknap Press of Harvard University Press, 2009, pp. 197–224. isbn: 9780674034495 067403449X (cit. on p. 31).

Robert B. Brandom: Introduction: From German Idealism to American Pragmatism - and Back

Robert B. Brandom. “Introduction: From German Idealism to American Pragmatism - and Back”. In: *Perspectives on Pragmatism*. Cambridge Mass.; London: Harvard University Press, 2011 (cit. on p. 30).

Robert B. Brandom: Linguistic Pragmatism and Pragmatism about Norms: An Arc of Thought from Rorty's Eliminative Materialism to his Pragmatism

Robert B. Brandom. "Linguistic Pragmatism and Pragmatism about Norms: An Arc of Thought from Rorty's Eliminative Materialism to his Pragmatism". In: *Perspectives on Pragmatism*. Cambridge Mass. ; London: Harvard University Press, 2011.

Robert B. Brandom: Pragmatism, Expressivism, and Anti-Representationalism: Local and Global Possibilities

Robert B. Brandom. "Pragmatism, Expressivism, and Anti-Representationalism: Local and Global Possibilities". In: *Perspectives on Pragmatism*. Cambridge Mass. ; London: Harvard University Press, 2011.

Robert B Brandom: Reason in philosophy

Robert B Brandom. *Reason in philosophy*. Cambridge, Mass. [etc.]: The Belknap Press of Harvard University Press, 2009. isbn: 9780674034495 067403449X (cit. on pp. 17, 19).

Robert B. Brandom: Vocabularies of Pragmatism: Synthesizing Naturalism and Historicism

Robert B. Brandom. "Vocabularies of Pragmatism: Synthesizing Naturalism and Historicism". In: *Perspectives on Pragmatism*. Cambridge Mass. ; London: Harvard University Press, 2011 (cit. on p. 19).

Braun: Conceptions of Validity

Henry Braun. "Conceptions of Validity: The Private and the Public". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 46–49. doi: [10.1080 / 15366367 . 2012 . 679159](https://doi.org/10.1080/15366367.2012.679159).

Brinkmann: Psychology's Facts and Values

Svend Brinkmann. "Psychology's Facts and Values: A Perennial Entanglement". In: *Philosophical Psychology* 18.6 (2005), pp. 749–765. doi: [10.1080/09515080500355244](https://doi.org/10.1080/09515080500355244).

Abstract: The idea of a logical and metaphysical gap between facts and values is taken for granted in much psychology. Howard Kendler has recently defended the standard view that human values cannot be discovered by psychology. In contrast, various postmodern approaches have sought to attack the fact-value dichotomy with the argument that psychological facts are inevitably morally and politically laden, and therefore relative. In this article, a third line of thought is pursued, significantly inspired by philosopher of science, Hilary Putnam. It is argued that knowledge of facts presupposes knowledge of values, and that value judgments can be objectively right. In this light, the objectivity of scientific facts is not threatened by their entanglement with values. Psychology's objects can be described accurately only with value concepts, among them "thick ethical concepts." Different ways in which psychological science presupposes values are outlined. Finally, it is suggested that the distinction between epistemic and moral values is rarely useful in psychology, and should not be thought of as absolute.

Brinkmann: The ethical subject: Accountability, authorship, and practical reason

Svend Brinkmann. "The ethical subject: Accountability, authorship, and practical reason". In: *SATS* 11.1 (Sept. 2010), pp. 75–89. url: <http://www.degruyter.com.proxy.uchicago.edu/view/j/sats.2010.11.issue-1/sats.2010.007/sats.2010.007.xml> (visited on 04/21/2012).

Abstract: Abstract Can human subjects be constructed and yet ethical? If it is language that speaks, rather than the author, how can we claim authorship over our utterances and actions? In this article, I struggle with these questions and try to develop a view of the ethical subject between an essentialist position that pictures the subject as unitary, and a postmodern position depicting the subject as fragmented. On this middle ground, I argue that a viable view of the ethical subject presents it as fundamentally an accountable reason giver, but I also point to some important limitations concerning accountability. Drawing in particular on the recent works of Sabina Lovibond and Judith Butler, I explore the resources for thinking of the subject within what has been called the practical reason approach to ethics, arguing that a subject should be thought of as existing in a normative space – a 'space of reasons'.

Brinkmann: The Mind as Skills and Dispositions: On Normativity and Mediation

Svend Brinkmann. "The Mind as Skills and Dispositions: On Normativity and Mediation". In: *Integrative Psychological and Behavioral Science* (Aug. 2011). issn: 1932-4502, 1936-3567. doi: [10.1007/s12124-011-9183-6](https://doi.org/10.1007/s12124-011-9183-6). url: <http://www.springerlink.com.proxy.uchicago.edu/content/g2222336gjn7x61k/> (visited on 01/02/2012).

Brinkmann: Towards an Expansive Hybrid Psychology: Integrating Theories of the Mediated Mind

Svend Brinkmann. "Towards an Expansive Hybrid Psychology: Integrating Theories of the Mediated Mind". In: *Integrative Psychological and Behavioral Science* 45.1 (Oct. 2010), pp. 1–20. issn: 1932-4502, 1936-3567. doi: [10.1007/s12124-010-9146-3](https://doi.org/10.1007/s12124-010-9146-3). url: <http://www.springerlink.com.proxy.uchicago.edu/content/ejq3033k4108g430/> (visited on 02/04/2012).

Bucholtz et al.: Identity and interaction: a sociocultural linguistic approach

Mary Bucholtz and Kira Hall. "Identity and interaction: a sociocultural linguistic approach". In: *Discourse Studies* 7.4-5 (Oct. 2005), pp. 585–614. issn: 1461-4456, 1461-7080. doi: [10.1177/1461445605054407](https://doi.org/10.1177/1461445605054407). url: <http://dis.sagepub.com.proxy.uchicago.edu/content/7/4-5/585.short> (visited on 02/12/2012).

Abstract: The article proposes a framework for the analysis of identity as produced in linguistic interaction, based on the following principles: (1) identity is the product rather than the source of linguistic and other semiotic practices and therefore is a social and cultural rather than primarily internal psychological phenomenon; (2) identities encompass macro-level demographic categories, temporary and interactionally specific stances and participant roles, and local, ethnographically emergent cultural positions; (3) identities may be linguistically indexed through labels, implicatures, stances, styles, or linguistic structures and systems; (4) identities are relationally constructed through several, often overlapping,

aspects of the relationship between self and other, including similarity/difference, genuineness/artifice and authority/ delegitimacy; and (5) identity may be in part intentional, in part habitual and less than fully conscious, in part an outcome of interactional negotiation, in part a construct of others' perceptions and representations, and in part an outcome of larger ideological processes and structures. The principles are illustrated through examination of a variety of linguistic interactions.

Button: Ethnomethodology and the Human Sciences

Graham Button, ed. *Ethnomethodology and the Human Sciences*. Cambridge; New York: Cambridge University Press, 1991. isbn: 9780521389525 (cit. on p. 19).

Abstract: Traditionally, when the human sciences consider foundational issues such as epistemology and method, they do so by theorising them. Ethnomethodology, however, attempts to make such foundational matters a focus of attention, and directly enquires into them. This book reappraises the significance of ethnomethodology in sociology in particular, and in the human sciences in general. It demonstrates how, through its empirical enquiries into the ordered properties of social action, ethnomethodology provides a radical respecification of the foundations of the human sciences, an achievement that has often been misunderstood. The chapters, by leading scholars, take up the specification of action and order in theorising, logic, epistemology, measurement, evidence, the social actor, cognition, language and culture, and moral judgement, and underscore the ramifications for the human sciences of the ethnomethodologist's approach. This is a systematic and coherent collection which explicitly addresses fundamental conceptual issues. The clear exposition of the central tenets of ethnomethodology is especially welcome.

Carmines et al.: Reliability and Validity Assessment

Edward G. Carmines and Richard A. Zeller. *Reliability and Validity Assessment*. SAGE, Nov. 1979.

Abstract: This guide explains how social scientists can evaluate the reliability and validity of empirical measurements, discussing the three basic types of validity: criterion related, content, and construct. In addition, the paper shows how reliability is assessed by the retest method, alternative-forms procedure, split-halves approach, and internal consistency method.

Carston: Linguistic Communication and the Semantics/Pragmatics Distinction

Robyn Carston. "Linguistic Communication and the Semantics/Pragmatics Distinction". In: *Synthese* 165.3 (Dec. 2008). ArticleType: research-article / Full publication date: Dec., 2008 / Copyright © 2008 Springer, pp. 321–345. issn: 0039-7857. url: <http://www.jstor.org/stable/40271119>.

Abstract: Most people working on linguistic meaning or communication assume that semantics and pragmatics are distinct domains, yet there is still little consensus on how the distinction is to be drawn. The position defended in this paper is that the semantics/pragmatics distinction holds between (context-invariant) encoded linguistic meaning and speaker meaning. Two other 'minimalist' positions on semantics are explored and found wanting: Kent Bach's view that there is a narrow semantic notion of context which is responsible for providing semantic values for a small number of indexicals, and Her-

man Cappelen and Ernie Lepore's view that semantics includes the provision of values for all indexicals, even though these depend on the speaker's communicative intentions. Finally, some implications are considered for the favoured semantics/pragmatics distinction of the fact that there are linguistic elements (lexical and syntactic) which do not contribute to truth-conditional content but rather provide guidance on pragmatic inference.

Cash: Cognition without borders: "Third wave" socially distributed cognition and relational autonomy

Mason Cash. "Cognition without borders: "Third wave" socially distributed cognition and relational autonomy". In: *Cognitive Systems Research* 25–26 (Dec. 2013), pp. 61–71. doi: [10.1016/j.cogsys.2013.03.007](https://doi.org/10.1016/j.cogsys.2013.03.007) (cit. on p. 32).

Abstract: I contrast somewhat individualist arguments for first-wave "extended cognition" and second-wave "integrationist cognition" with what we can identify as a third wave of arguments for "socially and culturally distributed cognition", in which individual cognition takes place within, is supported by, and is mutually co-constructed with larger social, institutional, normative, political and technological systems and cultural practices. Such accounts must respond to the objection of "cognitive bloat". When does a processes count as my cognitive process? This objection is not best rebutted, as Clark often attempts, by limiting extension to processes that play a similar role to internal brain processes. Nor is it best addressed, as Gallagher (2013) does, by appealing to enactive engagement as grounding "ownership" of a process. Rather, the solution is in our shared, evolving, normative and social practices of holding people responsible for their actions. I support this by drawing parallels between socially distributed cognition and feminist relational theory, which has already addressed the issue of individual autonomy within social practices that shape individuals' selves, values, and capacities. I end by highlighting political and ethical concerns raised by this conception of HEC regarding differential distribution of cognitive resources.

Castillo-Díaz et al.: How Cognitive Interviewing can Provide Validity Evidence of the Response Processes to Scale Items

Miguel Castillo-Díaz and José-Luis Padilla. "How Cognitive Interviewing can Provide Validity Evidence of the Response Processes to Scale Items". In: *Soc Indic Res* (), pp. 1–13. doi: [10.1007/s11205-012-0184-8](https://doi.org/10.1007/s11205-012-0184-8).

Abstract: The current theory about validity reflected in the Standards for Educational and Psychological Testing (AERA et al. in Standards for educational and psychological testing, American Psychological Association, Washington, DC, 1999), offers no clear indications about the methods for gathering validity evidence about the response processes. Cognitive interviewing (CI) can play an important role answering the current demand about empirical and theoretical analyses of the response processes as a source of validity evidence in psychological testing. CI can provide validity evidence for investigating substantive aspects of construct validity and for contributing to the explanations for item and test scores (Zumbo in Handbook of statistics, vol 26, Elsevier, Amsterdam, pp. 45–79, 2007; The concept of validity: revisions, new directions and applications, IAP—Information Age Publishing Inc.,

Charlotte, NC, pp. 65–82, 2009). The aim of the study was to illustrate the use of cognitive interviewing method for gathering validity evidence on response processes. The search for evidence about the “response process” was guided by an argument-based approach to validity (Kane in Psychological Bulletin 1992; Educational measurement, American Council on Education/Praeger, Washington, DC, pp. 17–64, 2006). 21 cognitive interviews were carried out during the cognitive testing of the APGAR psychological scale intended to measure the “family support” construct. Cognitive interviewing provided validity evidence that explains how respondents interpret and respond to the APGAR items. Respondents maintained a shared interpretation of “family concept” while answering the APGAR scale items. Nevertheless, they included in the concept of family not only family members they live with but also other family members and even friends. CI participants were also capable of classifying their answers about the family support perception following a polythomous response system. Lastly, the role of CI in the Kane’s argument-based approach and Zumbo’s contextualized view of validity will be discussed.

A. M. Chang et al.: Translation of questionnaires and issues of equivalence

A M Chang, J P Chau, and E Holroyd. “Translation of questionnaires and issues of equivalence”. In: *J Adv Nurs* 29.2 (Feb. 1999). PMID: 10197930, pp. 316–322. url: <http://www.ncbi.nlm.nih.gov/pubmed/10197930> (visited on 08/28/2011).

Abstract: The validity of studies using translated instruments may be questioned when there is a lack of attention to and/or minimal explanation of the procedures used for determining the equivalence between the primary and secondary language tool. Ensuring equivalence of a translated Chinese version of the Menstrual Distress Questionnaire is an important prerequisite for identifying culturally specific expressions of concepts under investigation and for cross-cultural comparisons. This paper examines the principles and procedures for determining equivalence of translated tools and their application to the development of an equivalent Chinese version of the Menstrual Distress Questionnaire. Translation and back-translation were used to develop a Chinese version of the Menstrual Distress Questionnaire. Bilingual university students completed both versions of the Menstrual Distress Questionnaire. Most of the Menstrual Distress Questionnaire items had an acceptable Kappa of >0.4. Intraclass correlation coefficients indicated moderate to high levels of equivalence for total scores and all scales. Improvement in the translation of some items is needed to further enhance the equivalence of the Chinese version of the Menstrual Distress Questionnaire.

H. Chang: Inventing temperature

Hasok Chang. *Inventing temperature: measurement and scientific progress*. Oxford studies in philosophy of science. Oxford ; New York: Oxford University Press, 2004. isbn: 0195171276.

H. Chang: Measurement, Justification, and Scientific Progress

Hasok Chang. “Measurement, Justification, and Scientific Progress”. In: *Inventing temperature: measurement and scientific progress*. Oxford studies in philosophy of science. Oxford ; New York: Oxford University Press, 2004, pp. 220–234. isbn: 0195171276.

H. Chang: Spirit, Air, and Quicksilver

Hasok Chang. "Spirit, Air, and Quicksilver". In: *Inventing temperature: measurement and scientific progress*. Oxford studies in philosophy of science. Oxford ; New York: Oxford University Press, 2004, pp. 57–102. isbn: 0195171276.

Cho et al.: Validity in qualitative research revisited

Jeasik Cho and Allen Trent. "Validity in qualitative research revisited". In: *Qualitative Research* 6.3 (2006), pp. 319–340. doi: [10.1177/1468794106065006](https://doi.org/10.1177/1468794106065006).

Abstract: Concerns with the issues of validity in qualitative research have dramatically increased. Traditionally, validity in qualitative research involved determining the degree to which researchers' claims about knowledge corresponded to the reality (or research participants' construction of reality) being studied. The authors note that recent trends have shown the emergence of two quite different approaches to the validity question within the literature on qualitative research. The authors categorize and label these 'transactional' validity and 'transformational' validity. While useful, the authors assert that neither approach is sufficient to meet the current needs of the field. The authors propose a recursive, process-oriented view of validity as an alternative framework.

Churchill: Ethnomethodology and Measurement

Lindsey Churchill. "Ethnomethodology and Measurement". In: *Social Forces* 50.2 (Dec. 1971), pp. 182–191. doi: [10.2307/2576936](https://doi.org/10.2307/2576936) (cit. on p. 19).

Abstract: The perspective of ethnomethodology is taken to try to illuminate some of the features of (a) quantitative research methods in sociology, as exemplified in path models, and (b) measurement problems contained in path models.

Cicourel: Interviews, Surveys, and the Problem of Ecological Validity

Aaron V. Cicourel. "Interviews, Surveys, and the Problem of Ecological Validity". In: *The American Sociologist* 17.1 (Feb. 1982), pp. 11–20. url: <http://www.jstor.org/stable/27702491> (visited on 03/11/2012).

Abstract: Despite the fact that virtually all social science data are derived from some kind of discourse or textual materials, sociologists have devoted little time to establishing explicit theoretical foundations for the use of such instruments as interviews and surveys. A key problem always has been the lack of clear theoretical concepts about the interpretation of interview and survey question and answer frames. We lack a theory of comprehension and communication that can provide a foundation for the way that question-answer systems function, and the way respondents understand them. The paper briefly describes the possible relevance of linguistic and cognitive processes for improving our understanding of interviews and surveys. The theoretical foundations of interviews and surveys also must address the way that artificial circumstances become necessary to guarantee adequate study designs. These artificial circumstances often violate ecological validity, or the way interviews and survey questions are

constructed, understood, and answered, as contrasted with the way that field notes and tape-recordings of natural settings are used to address the same or comparable substantive and theoretical issues.

A. Clark: Being there : putting brain, body, and world together again

Andy Clark. *Being there : putting brain, body, and world together again*. Cambridge, Mass. [u.a.]: MIT Press, 1997. isbn: 0262032406 9780262032407 0262531569 9780262531566 (cit. on p. 32).

A. Clark et al.: The Extended Mind

Andy Clark and David Chalmers. "The Extended Mind". In: *Analysis* 58.1 (Jan. 1998), pp. 7–19. url: <http://www.jstor.org/stable/3328150> (visited on 01/24/2012) (cit. on p. 32).

Abstract: Where does the mind stop and the rest of the world begin? The question invites two standard replies. Some accept the boundaries of skin and skull, and say that what is outside the body is outside the mind. Others are impressed by argument suggesting that the meaning of our words 'just ain't in the head', and hold that this externalism about meaning carries over into an externalism about mind. We propose to pursue a third position. We advocate a very different sort of externalism: an *active externalism*, based on the active role of the environment in driving cognitive processes.

A. Clark et al.: Doing without Representing?

Andy Clark and Josefa Toribio. "Doing without Representing?" In: *Synthese* 101.3 (Dec. 1994), pp. 401–431. doi: [10.1007/BF01063896](https://doi.org/10.1007/BF01063896).

Abstract: Connectionism and classicism, it generally appears, have at least this much in common: both place some notion of internal representation at the heart of a scientific study of mind. In recent years, however, a much more radical view has gained increasing popularity. This view calls into question the commitment to internal representation itself. More strikingly still, this new wave of anti-representationalism is rooted not in 'armchair' theorizing but in practical attempts to model and understand intelligent, adaptive behavior. In this paper we first present, and then critically assess, a variety of recent anti-representationalist treatments. We suggest that so far, at least, the sceptical rhetoric outpaces both evidence and argument. Some probable causes of this premature scepticism are isolated. Nonetheless, the anti-representationalist challenge is shown to be both important and progressive insofar as it forces us to see beyond the bare representational/non-representational dichotomy and to recognize instead a rich continuum of degrees and types of representationality.

H. H. Clark: Using language

Herbert H. Clark. *Using language*. Cambridge University Press, May 1996. isbn: 9780521567459.

Abstract: Herbert Clark argues that language use is more than the sum of a speaker speaking and a listener listening. It is the joint action that emerges when speakers and listeners, writers and readers perform their individual actions in coordination, as ensembles. In contrast to work within the cognitive sciences, which has seen language use as an individual process, and to work within the social sciences,

which has seen it as a social process, the author argues strongly that language use embodies both individual and social processes.

Cook et al.: Current Concepts in Validity and Reliability for Psychometric Instruments

David A. Cook and Thomas J. Beckman. "Current Concepts in Validity and Reliability for Psychometric Instruments: Theory and Application". In: *The American Journal of Medicine* 119.2 (Feb. 2006), 166.e7–166.e16. doi: [10.1016/j.amjmed.2005.10.036](https://doi.org/10.1016/j.amjmed.2005.10.036).

Abstract: Validity and reliability relate to the interpretation of scores from psychometric instruments (eg, symptom scales, questionnaires, education tests, and observer ratings) used in clinical practice, research, education, and administration. Emerging paradigms replace prior distinctions of face, content, and criterion validity with the unitary concept "construct validity," the degree to which a score can be interpreted as representing the intended underlying construct. Evidence to support the validity argument is collected from 5 sources: • Content: do instrument items completely represent the construct? • Response process: the relationship between the intended construct and the thought processes of subjects or observers • Internal structure: acceptable reliability and factor structure • Relations to other variables: correlation with scores from another instrument assessing the same construct • Consequences: do scores really make a difference? Evidence should be sought from a variety of sources to support a given interpretation. Reliable scores are necessary, but not sufficient, for valid interpretation. Increased attention to the systematic collection of validity evidence for scores from psychometric instruments will improve assessments in research, patient care, and education.

Coon: Standardizing the Subject

Deborah J. Coon. "Standardizing the Subject: Experimental Psychologists, Introspection, and the Quest for a Technoscientific Ideal". In: *Technology and Culture* 34.4 (Oct. 1993), p. 757. doi: [10.2307/3106414](https://doi.org/10.2307/3106414).

Costelloe: Giambattista Vico

Timothy Costelloe. "Giambattista Vico". In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Spring 2012. 2012. url: <http://plato.stanford.edu/archives/spr2012/entries/vico/> (visited on 01/23/2014) (cit. on p. 11).

Abstract: Giovanni Battista Vico (1668–1744) spent most of his professional life as Professor of Rhetoric at the University of Naples. He was trained in jurisprudence, but read widely in Classics, philology, and philosophy, all of which informed his highly original views on history, historiography, and culture. His thought is most fully expressed in his mature work, the *Scienza Nuova* or *The New Science*. In his own time, Vico was relatively unknown, but from the nineteenth century onwards his views found a wider audience and today his influence is widespread in the humanities and social sciences.

Coulter: Cognition: cognition in an ethnomethodological mode

Jeff Coulter. "Cognition: cognition in an ethnomethodological mode". In: *Ethnomethodology and the*

Human Sciences. Ed. by Graham Button. Cambridge; New York: Cambridge Univ. Press, 1991, p. 176. isbn: 9780521389525.

Abstract: Traditionally, when the human sciences consider foundational issues such as epistemology and method, they do so by theorising them. Ethnomethodology, however, attempts to make such foundational matters a focus of attention, and directly enquires into them. This book reappraises the significance of ethnomethodology in sociology in particular, and in the human sciences in general. It demonstrates how, through its empirical enquiries into the ordered properties of social action, ethnomethodology provides a radical respecification of the foundations of the human sciences, an achievement that has often been misunderstood. The chapters, by leading scholars, take up the specification of action and order in theorising, logic, epistemology, measurement, evidence, the social actor, cognition, language and culture, and moral judgement, and underscore the ramifications for the human sciences of the ethnomethodologist's approach. This is a systematic and coherent collection which explicitly addresses fundamental conceptual issues. The clear exposition of the central tenets of ethnomethodology is especially welcome.

Coulter: Discourse and Mind

Jeff Coulter. "Discourse and Mind". In: *Human Studies* 22.2/4 (Oct. 1999), pp. 163–181. url: <http://www.jstor.org/stable/20011238>.

Abstract: In recent years, various attempts have been made to advance a project sometimes characterized as "discursive psychology". Grounded in what its proponents term "social constructionism", the discursive approach to the elucidation of 'mental' phenomena is here contrasted to an ethnomethodological position informed by the later work of Wittgenstein. In particular, it is argued that discursive psychology still contains Cartesian residua, notwithstanding its professed objective of expurgating Cartesian thought from the behavioral sciences. One principal issue has been the confusion of "conceptual analysis" with the empirical study of speech practices. If these distinct enterprises are conflated, the critical achievements of conceptual analysis are obscured or even misconstrued. A different picture of how best to analyze human conduct and mentality emerges if the lessons of Wittgensteinian grammatical analysis are preserved and extended, one more compatible with several themes in ethnomethodology.

Coulter: Language Without Mind

Jeff Coulter. "Language Without Mind". English. In: *Conversation and Cognition*. Ed. by Hedwig te Molder and Jonathan Potter. Cambridge; New York: Cambridge Univ. Press, 2005, pp. 79–92.

Abstract: Written by leading figures in conversation analysis, discursive psychology and ethnomethodology, this book looks at the challenging implications of new discourse-based approaches to the topic of cognition.

Coulter: Logic: ethnomethodology and the logic of language

Jeff Coulter. "Logic: ethnomethodology and the logic of language". In: *Ethnomethodology and the*

Human Sciences. Ed. by Graham Button. Cambridge; New York: Cambridge Univ. Press, 1991, pp. 20–50. isbn: 9780521389525.

Abstract: Traditionally, when the human sciences consider foundational issues such as epistemology and method, they do so by theorising them. Ethnomethodology, however, attempts to make such foundational matters a focus of attention, and directly enquires into them. This book reappraises the significance of ethnomethodology in sociology in particular, and in the human sciences in general. It demonstrates how, through its empirical enquiries into the ordered properties of social action, ethnomethodology provides a radical respecification of the foundations of the human sciences, an achievement that has often been misunderstood. The chapters, by leading scholars, take up the specification of action and order in theorising, logic, epistemology, measurement, evidence, the social actor, cognition, language and culture, and moral judgement, and underscore the ramifications for the human sciences of the ethnomethodologist's approach. This is a systematic and coherent collection which explicitly addresses fundamental conceptual issues. The clear exposition of the central tenets of ethnomethodology is especially welcome.

Coulter: Theoretical problems of cognitive science

Jeff Coulter. "Theoretical problems of cognitive science". In: *Inquiry* 25.1 (1982), pp. 3–26. doi: [10.1080/00201748208601952](https://doi.org/10.1080/00201748208601952).

Abstract: Aspects of the controversy concerning the theoretical status of some recent thinking on human cognition are discussed; in particular, the concept of "unconscious knowledge", the "functionalist" analysis of the mental; the problem of the domains of explananda, given the recalcitrant difficulty in providing warrantable and generalizable criteria for individuating components of an organism's "behavior"; the problem of the polymorphous character of various mental predicates and their misconceived treatment as "state" or "process" descriptors; the possible "over-intellectualizing" of central-nervous-system processes, and the availability of an alternative program for the "middle-ground" between common-sense reasoning and neuroscientific research in the study of "mind". Throughout the discussion, a broadly neo-Wittgensteinian approach is advanced.

Coulter: What Is "Discursive Psychology"?

Jeff Coulter. "What Is "Discursive Psychology"?" In: *Human Studies* 27.3 (Jan. 2004), pp. 335–340. url: <http://www.jstor.org/stable/20010378>.

Cramer: Why the Item "23 +1" Is Not in a Depression Questionnaire

Angélique O. J. Cramer. "Why the Item "23 +1" Is Not in a Depression Questionnaire: Validity From a Network Perspective". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 50–54. doi: [10.1080/15366367.2012.681973](https://doi.org/10.1080/15366367.2012.681973).

Crane et al.: Mental Causation

Tim Crane and Bill Brewer. “Mental Causation”. In: *Proceedings of the Aristotelian Society, Supplementary Volumes* 69 (Jan. 1995), pp. 211–253. issn: 0309-7013. url: <http://www.jstor.org/stable/4107076> (visited on 12/08/2013) (cit. on p. 26).

Cronbach et al.: Construct validity in psychological tests

Lee J. Cronbach and Paul E. Meehl. “Construct validity in psychological tests”. In: *Psychol Bull* 52.4 (July 1955). PMID: 13245896, pp. 281–302. url: <http://www.ncbi.nlm.nih.gov/pubmed/13245896> (visited on 03/17/2012).

Cullen: Survey-Driven Romanticism

Simon Cullen. “Survey-Driven Romanticism”. en. In: *Review of Philosophy and Psychology* 1.2 (June 2010), pp. 275–296. doi: [10.1007/s13164-009-0016-1](https://doi.org/10.1007/s13164-009-0016-1).

Abstract: Despite well-established results in survey methodology, many experimental philosophers have not asked whether and in what way conclusions about folk intuitions follow from people’s responses to their surveys. Rather, they appear to have proceeded on the assumption that intuitions can be simply read off from survey responses. Survey research, however, is fraught with difficulties. I review some of the relevant literature—particularly focusing on the conversational pragmatic aspects of survey research—and consider its application to common experimental philosophy surveys. I argue for two claims. First, that experimental philosophers’ survey methodology leaves the facts about folk intuitions massively underdetermined; and second, that what has been regarded as evidence for the instability of philosophical intuitions is, at least in some cases, better accounted for in terms of subjects’ reactions to subtle pragmatic cues contained in the surveys.

Davidson: A Nice Derangement of Epitaphs

Donald Davidson. “A Nice Derangement of Epitaphs”. In: *Truth, Language, and History*. Vol. 5. Philosophical Essays. Oxford University Press, 2005 (1986), pp. 433–446. doi: [10.1093/019823757X.003.0007](https://doi.org/10.1093/019823757X.003.0007) (cit. on pp. 30, 33).

Abstract: This essay argues that in linguistic communication, nothing corresponds to a linguistic competence as summarized by the three principles of first meaning in language: that first meaning is systematic, first meanings are shared, and first meanings are governed by learned conventions or regularities. There is no such a thing as a language, not if a language is anything like what many philosophers and linguists have supposed. We must give up the idea of a clearly defined shared structure which language users acquire and then apply to cases, as well as the attempt to illuminate how we communicate by appeal to conventions.

Davies et al.: Positioning: The Discursive Production of Selves

Bronwyn Davies and Rom Harré. "Positioning: The Discursive Production of Selves". en. In: *Journal for the Theory of Social Behaviour* 20.1 (Mar. 1990), pp. 43–63. doi: [10.1111/j.1468-5914.1990.tb00174.x](https://doi.org/10.1111/j.1468-5914.1990.tb00174.x).

Davis: Believing and Acting: The Pragmatic Turn in Comparative Religion and Ethics

G. Scott Davis. *Believing and Acting: The Pragmatic Turn in Comparative Religion and Ethics*. en. Oxford University Press, Mar. 2012.

Abstract: How should religion and ethics be studied if we want to understand what people believe and why they act the way they do? In the 1980s and '90s postmodernist worries about led to debates that turned on power, truth, and relativism. Since the turn of the century scholars impressed by 'cognitive science' have introduced concepts drawn from evolutionary biology, neurosciences, and linguistics in the attempt to provide 'naturalist' accounts of religion. Deploying concepts and arguments that have their roots in the pragmatism of C. S. Peirce, *Believing and Acting* argues that both approaches are misguided and largely unhelpful in answering the questions that matter: What did those people believe then? How does it relate to what these people want to do now? What is our evidence for our interpretations? Pragmatic inquiry into these questions recommends an approach that questions grand theories, advocates a critical pluralism about religion and ethics that defies disciplinary boundaries in the pursuit of the truth. Rationality, on a pragmatic approach, is about solving particular problems in *media res*, thus there is no hard and fast line to be drawn between inquiry and advocacy; both are essential to negotiating day to day life. The upshot is an approach to religion and ethics in which inquiry looks much like the art history of Michael Baxandall and advocacy like the art criticism of Arthur Danto.

Dawes: Psychological measurement

Robyn M. Dawes. "Psychological measurement". In: *Psychological Review* 101.2 (1994), pp. 278–281. doi: [10.1037/0033-295X.101.2.278](https://doi.org/10.1037/0033-295X.101.2.278).

Abstract: L. L. Thurstone's (see PA, Vol 2:527; see also PA, Vol 81:28135) article developed a representational measurement model of comparative judgment; estimated discrimination probabilities yield scale values that imply values of other probabilities not yet observed, if the model provides a true representation. In practice, the accuracy of such inferences is captured by "goodness-of-fit" statistics. The specific representational measurement model developed can yield magnitude measurement on psychological dimensions for which no corresponding physical dimensions exist (e.g., favorability of "attitude toward"). This revolutionary article led to the development of many other representational measurement models. As opposed to psychophysics, however, the introduction of "true measurement" in social, attitudinal, and personality psychology did not yield the rapid progress Thurstone envisioned, and currently this specific model is seldom used in these areas.

Dennett: Styles of Mental Representation

Daniel C. Dennett. "Styles of Mental Representation". In: *Proceedings of the Aristotelian Society*. New Series 83 (Jan. 1982), pp. 213–226. issn: 00667374. url: <http://www.jstor.org.proxy.uchicago.edu/stable/4545000> (visited on 02/19/2011).

Derrida: Signature Event Context

Jacques Derrida. "Signature Event Context". In: *Limited Inc*. Evanston, Ill.: Northwestern Univ. Press, 1988.

Descombes: Replies

Vincent Descombes. "Replies". In: *Inquiry* 47.3 (2004), pp. 267–288. doi: [10.1080/00201740410006375](https://doi.org/10.1080/00201740410006375) (cit. on pp. 31, 32).

Descombes: The Mind's Provisions: a Critique of Cognitivism

Vincent Descombes. *The Mind's Provisions: a Critique of Cognitivism*. New French thought. Princeton, N.J.: Princeton University Press, 2001 (cit. on pp. 19, 31).

Abstract: Vincent Descombes brings together an astonishingly large body of philosophical and anthropological thought to present a thoroughgoing critique of contemporary cognitivism and to develop a powerful new philosophy of the mind.

Beginning with a critical examination of American cognitivism and French structuralism, Descombes launches a more general critique of all philosophies that view the mind in strictly causal terms and suppose that the brain—and not the person—thinks. Providing a broad historical perspective, Descombes draws surprising links between cognitivism and earlier anthropological projects, such as Lévi-Strauss's work on the symbolic status of myths. He identifies as incoherent both the belief that mental states are detached from the world and the idea that states of mind are brain states; these assumptions beg the question of the relation between mind and brain.

In place of cognitivism, Descombes offers an anthropologically based theory of mind that emphasizes the mind's collective nature. Drawing on Wittgenstein, he maintains that mental acts are properly attributed to the person, not the brain, and that states of mind, far from being detached from the world, require a historical and cultural context for their very intelligibility.

Available in English for the first time, this is the most outstanding work of one of France's finest contemporary philosophers. It provides a much-needed link between the continental and Anglo-American traditions, and its impact will extend beyond philosophy to anthropology, psychology, critical theory, and French studies.

DeVellis: Scale development : theory and applications

Robert F DeVellis. *Scale development : theory and applications*. Thousand Oaks, Calif.: Sage Publications, 2003. isbn: 0761926046 9780761926047 0761926054 9780761926054.

Abstract: 'Scale Development' guides the reader toward the identification of the latent variable, the generation of an item pool, the format for measurement & the optimization of the scale length. Using exercises to illustrate the concepts, the text also includes advice about factor analytic strategies.

Di Nuovo: Variables and Quantity

Santo Di Nuovo. "Variables and Quantity: What Else?" In: *Integrative Psychological and Behavioral Science* 43.1 (Nov. 2008), pp. 84–88. doi: [10.1007/s12124-008-9081-8](https://doi.org/10.1007/s12124-008-9081-8).

Dickstein: The Revival of Pragmatism

Morris Dickstein. *The Revival of Pragmatism: New Essays on Social Thought, Law, and Culture*. Duke University Press, Nov. 1998 (cit. on p. 30).

Abstract: Although long considered the most distinctive American contribution to philosophy, pragmatism—with its problem-solving emphasis and its contingent view of truth—lost popularity in mid-century after the advent of World War II, the horror of the Holocaust, and the dawning of the Cold War. Since the 1960s, however, pragmatism in many guises has again gained prominence, finding congenial places to flourish within growing intellectual movements. This volume of new essays brings together leading philosophers, historians, legal scholars, social thinkers, and literary critics to examine the far-reaching effects of this revival. As the twenty-five intellectuals who take part in this discussion show, pragmatism has become a complex terrain on which a rich variety of contemporary debates have been played out. Contributors such as Richard Rorty, Stanley Cavell, Nancy Fraser, Robert Westbrook, Hilary Putnam, and Morris Dickstein trace pragmatism's cultural and intellectual evolution, consider its connection to democracy, and discuss its complex relationship to the work of Emerson, Nietzsche, and Wittgenstein. They show the influence of pragmatism on black intellectuals such as W. E. B. Du Bois, explore its view of poetic language, and debate its effects on social science, history, and jurisprudence. Also including essays by critics of the revival such as Alan Wolfe and John Patrick Diggins, the volume concludes with a response to the whole collection from Stanley Fish. Including an extensive bibliography, this interdisciplinary work provides an in-depth and broadly gauged introduction to pragmatism, one that will be crucial for understanding the shape of the transformations taking place in the American social and philosophical scene at the end of the twentieth century. Contributors: Richard Bernstein, David Bromwich, Ray Carney, Stanley Cavell, Morris Dickstein, John Patrick Diggins, Stanley Fish, Nancy Fraser, Thomas C. Grey, Giles Gunn, Hans Joas, James T. Kloppenberg, David Luban, Louis Menand, Sidney Morgenbesser, Richard Poirier, Richard A. Posner, Ross Posnock, Hilary Putnam, Ruth Anna Putnam, Richard Rorty, Michel Rosenfeld, Richard H. Weisberg, Robert B. Westbrook, Alan Wolfe.

Dresner: Language and the Measure of Mind

Eli Dresner. "Language and the Measure of Mind". In: *Mind & Language* 25.4 (Sept. 2010), pp. 418–439. doi: [10.1111/j.1468-0017.2010.01396.x](https://doi.org/10.1111/j.1468-0017.2010.01396.x).

Abstract: In his recent book *The Measure of Mind* Robert Matthews presents the most elaborate and convincing attempt to date to account for the propositional attitudes in measurement theoretic terms. In

the first section of this paper I review earlier applications of measurement-theoretic conceptualization to the discussion of the mind, I outline Matthews' own account, and I raise two questions concerning it. Then, in the second section of the paper, I present a unified measurement-theoretic account of both linguistic meaning and the propositional attitudes, in which a variant of Matthews' position is embedded. Such a unified account, I argue, yields satisfactory answers to the questions raised with respect to Matthews' original view, and demonstrates other advantages.

H. Dreyfus: Overcoming the myth of the mental

Hubert Dreyfus. "Overcoming the myth of the mental". In: *Topoi* 25.1 (2006), pp. 43–49. doi: [10.1007/s11245-006-0006-1](https://doi.org/10.1007/s11245-006-0006-1).

Abstract: Can we accept John McDowell's Kantian claim that perception is conceptual "all the way out," thereby denying the more basic perceptual capacities we seem to share with prelinguistic infants and higher animals? More generally, can philosophers successfully describe the conceptual upper floors of the edifice of knowledge while ignoring the embodied coping going on on the ground floor? I argue that we shouldn't leave the conceptual component of our lives hanging in midair and suggest how philosophers who want to understand knowledge and action can profit from a phenomenological analysis of the nonconceptual embodied coping skills we share with animals and infants, as well as the nonconceptual immediate intuitive understanding exhibited by experts.

H. L. Dreyfus: How Representational Cognitivism Failed and is being replaced by Body/World Coupling

Hubert L. Dreyfus. "How Representational Cognitivism Failed and is being replaced by Body/World Coupling". In: *After Cognitivism*. Ed. by Karl Leidlmair. Dordrecht [etc.]: Springer Netherlands, 2009, pp. 39–73.

Abstract: Reading Heidegger's *Being and Time* and Merleau-Ponty's *Phenomenology of Perception* suggested that Symbolic AI with its representations of meaningless facts about the world could not solve the frame problem, and that the best representation of the world is the world itself. Now GOF AI has failed, and Rondey Brooks boasts that his animats avoid the frame problem precisely by directly relating to the world. But Brook's animates and all other versions of what some call Heideggerian AI have their own version of the frame problem, viz. that the program can't update relevance. Fortunately, there is at least one model of how the brain could provide the causal basis of such an ability. Walter Freeman, a founding figure in neurodynamics and one of the first to take seriously the idea of the brain as a nonlinear dynamical system, has worked out an account of how the brain of an active animal can directly pick up and update what counts as significant in its world. But, to program Heideggerian AI, we would not only need a model of brain functioning such as Freeman's; we would also need a model of our particular way of being embedded and embodied such that what we experience is significant for us in the particular way that it is. This shows the task of a Heideggerian AI to be overwhelmingly difficult and casts doubt on whether we will ever be able to accomplish it.

H. L. Dreyfus: Intelligence without representation – Merleau-Ponty’s critique of mental representation The relevance of phenomenology to scientific explanation

Hubert L. Dreyfus. “Intelligence without representation – Merleau-Ponty’s critique of mental representation The relevance of phenomenology to scientific explanation”. In: *Phenomenology and the Cognitive Sciences* 1.4 (Dec. 2002), pp. 367–383. doi: [10.1023/A:1021351606209](https://doi.org/10.1023/A:1021351606209).

Abstract: Existential phenomenologists hold that the two most basic forms of intelligent behavior, learning, and skillful action, can be described and explained without recourse to mind or brain representations. This claim is expressed in two central notions in Merleau-Ponty’s *Phenomenology of Perception*: the intentional arc and the tendency to achieve a maximal grip. The intentional arc names the tight connection between body and world, such that, as the active body acquires skills, those skills are “stored”, not as representations in the mind, but as dispositions to respond to the solicitations of situations in the world. A phenomenology of skill acquisition confirms that, as one acquires expertise, the acquired know-how is experienced as finer and finer discriminations of situations paired with the appropriate response to each. Maximal grip names the body’s tendency to refine its responses so as to bring the current situation closer to an optimal gestalt. Thus, successful learning and action do not require propositional mental representations. They do not require semantically interpretable brain representations either.

H. L. Dreyfus: Refocusing the question

Hubert L. Dreyfus. “Refocusing the question: Can there be skillful coping without propositional representations or brain representations?” In: *Phenomenology and the Cognitive Sciences* 1.4 (2002), pp. 413–425. doi: [10.1023/A:1021303723047](https://doi.org/10.1023/A:1021303723047).

Droitcour et al.: The Three-Card Method: Estimating Sensitive Survey Items—With Permanent Anonymity of Response

Judith A. Droitcour, Eric M. Larsen, and Fritz J. Scheuren. “The Three-Card Method: Estimating Sensitive Survey Items—With Permanent Anonymity of Response”. In: *Proceedings of the Annual Meeting of the American Statistical Association*. Aug. 2001. url: <http://www.amstat.org/sections/srms/proceedings/y2001/Proceed/00582.pdf>.

Droitcour et al.: An Innovative Technique for Asking Sensitive Questions: the Three-Card Method

Judith A. Droitcour and Eric M. Larson. “An Innovative Technique for Asking Sensitive Questions: the Three-Card Method”. In: *Bulletin de Méthodologie Sociologique* 75.1 (July 2002), pp. 5–23. doi: [10.1177/075910630207500103](https://doi.org/10.1177/075910630207500103). url: <http://bms.sagepub.com/content/75/1/5.abstract> (visited on 10/25/2011).

Abstract: Une technique innovante pour poser des questions sensible - La méthodes des trois cartes: La méthode de trois cartes est une technique d’enquête en développement au General Accounting Office (Cours des comptes) américain pour la collection de données sensibles lors des enquêtes en face-à-face à grande échelle. L’objectif de cette technique est de fournir les statistiques nécessaires tout en

respectant au maximum l'anonymat des répondants et en réduisant l'agressivité des questions. Cette technique a ses origines dans la collecte de données personnelles sur la situation des immigrés, mais elle peut être utile dans divers domaines impliquant des questions sensibles.

Dunbar: The Social Brain Hypothesis

Robin I. M Dunbar. "The Social Brain Hypothesis". en. In: *Evolutionary Anthropology: Issues, News, and Reviews* 6.5 (Jan. 1998), pp. 178–190. doi: [10 . 1002 / \(S I C I \) 1520 – 6505 \(1998 \) 6 : 5 < 178 :: A I D – E V A N 5 > 3 . 0 . C O ; 2 – 8](https://doi.org/10.1002/(SICI)1520-6505(1998)6:5<178::AID-EVAN5>3.0.CO;2-8) (cit. on p. 32).

Abstract: Conventional wisdom over the past 160 years in the cognitive and neurosciences has assumed that brains evolved to process factual information about the world. Most attention has therefore been focused on such features as pattern recognition, color vision, and speech perception. By extension, it was assumed that brains evolved to deal with essentially ecological problem-solving tasks.

Egginton et al.: The Pragmatic Turn in Philosophy

William Egginton and William Egginton Mike Sandbothe. *The Pragmatic Turn in Philosophy: Contemporary Engagements Between Analytic and Continental Thought*. SUNY Press, Apr. 2004 (cit. on p. 12).

Abstract: "The Pragmatic Turn in Philosophy" explores how the various discursive strategies of old and new pragmatisms are related, and what their pertinence is to the relationship between pragmatism and philosophy as a whole. The contributors bridge the divide between analytic and continental philosophy through a transcontinental desire to work on common problems in a common philosophical language. Irrespective of which side of the divide one stands on, pragmatic philosophy has gained ascendancy over the traditional concerns of a representationalist epistemology that has determined much of the intellectual and cultural life of modernity. This book details how contemporary philosophy will emerge from this recognition and that in fact, this emergence is already underway.

Embretson: Construct Validity

Susan E. Embretson. "Construct Validity: A Universal Validity System or Just Another Test Evaluation Procedure?" In: *Educational Researcher* 36.8 (Nov. 2007), pp. 449–455. doi: [10 . 3102 / 0013189X07311600](https://doi.org/10.3102/0013189X07311600).

Abstract: Lissitz and Samuelsen (2007) have proposed a framework that seemingly deems construct validity evidence irrelevant to supporting educational test meaning. The author of this article agrees with Lissitz and Samuelsen that internal evidence establishes test meaning, but she argues that construct validity need not be removed from the validity sphere. In fact, she argues that doing so could have an adverse impact on the quality of educational tests. She proposes a universal system for construct validity to illustrate how diverse evidence is relevant to claims about measuring examinees' knowledge, skills, abilities, and competencies even when test specifications provide a major source of evidence.

Emirbayer et al.: Pragmatism and Ethnomethodology

Mustafa Emirbayer and Douglas W. Maynard. "Pragmatism and Ethnomethodology". In: *Qualitative Sociology* 34.1 (Nov. 2010), pp. 221–261. doi: [10.1007/s11133-010-9183-8](https://doi.org/10.1007/s11133-010-9183-8) (cit. on pp. 19, 32).

Engelhard et al.: Epistemic Iterations and Consensus Definitions of Validity

George Engelhard and Nadia Behizadeh. "Epistemic Iterations and Consensus Definitions of Validity". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 55–58. doi: [10.1080/15366367.2012.681974](https://doi.org/10.1080/15366367.2012.681974).

Essex et al.: Between Numbers and Notions A Critique of Psychological Measurement

Christopher Essex and William E. Smythe. "Between Numbers and Notions A Critique of Psychological Measurement". In: *Theory & Psychology* 9.6 (Dec. 1999), pp. 739–767. doi: [10.1177/0959354399096002](https://doi.org/10.1177/0959354399096002).

Abstract: When psychologists apply mathematical machinery to psychological ideas, that machinery imposes certain requirements in the linkage of numbers and notions. These impose choices driven by the mathematics and not the psychology. These decisions, forced by the mathematics, induce theoretical issues in the psychology. Attempting a theory-neutral approach to research in psychology, where commitments in response to the options are made unknowingly, thus becomes instead a theory-by-default psychology. This paper begins to catalogue some of these mathematical choices to make them explicit, in order to allow psychologists the opportunity to make explicit theoretical commitments.

Fischer et al.: Standardization in psychological research.

Ronald Fischer and Taciano L. Milfont. "Standardization in psychological research." In: *International Journal of Psychological Research* 3.1 (July 2010), pp. 88–96. url: <http://mvint.usbmed.edu.co:8002/ojs/index.php/web/article/view/463> (visited on 12/09/2013).

Abstract: The term standardization has been used in a number of different ways in psychological research, mainly in relation to standardization of procedure, standardization of interpretation and standardization of scores. The current paper will discuss the standardization of scores in more detail. Standardization of scores is a common praxis in settings where researchers are concerned with different response styles, issues of faking or social desirability. In these contexts, scores are transformed to increase validity prior to data analysis. In this paper, we will outline a broad taxonomy of standardization methods, will discuss when and how scores can be standardized, and what statistical tests are available after the transformation. Simple step-by-step procedures and examples of syntax files for SPSS are provided. Applications for personality, organizational and cross-cultural psychology will be discussed. Limitations of these techniques are discussed, especially in terms of theoretical interpretation of the transformed scores and use of such scores with multivariate statistics.

Flaherty et al.: Developing instruments for cross-cultural psychiatric research

J A Flaherty et al. "Developing instruments for cross-cultural psychiatric research". In: *J. Nerv. Ment. Dis.* 176.5 (May 1988). PMID: 3367140, pp. 257–263. url: <http://www.ncbi.nlm.nih.gov/pubmed/3367140> (visited on 10/23/2011).

Abstract: The growth of cross-cultural psychiatry is now occurring at a time when psychiatry in general is emphasizing diagnostic clarity and the use of quantifiable and reliable methods of collecting clinical and research data. It is now imperative that cross-cultural psychiatry also examine its methods for developing instruments for use in cross-cultural research. This paper outlines a method for developing instruments designed in one culture for use in a second, and particular attention is given to cross-cultural validity or equivalence. Five types of equivalence are enumerated and defined: content, semantic, technical, criterion, and conceptual equivalence. These concepts are illustrated by examples from the authors' experience in research on internal migrants in Peru.

J. A. Fodor: Methodological Solipsism Considered as a Research Strategy in Cognitive Psychology

J. A. Fodor. "Methodological Solipsism Considered as a Research Strategy in Cognitive Psychology". In: *Behavioral and Brain Sciences* 3.01 (1980), pp. 63–73. doi: [10.1017/S0140525X00001771](https://doi.org/10.1017/S0140525X00001771).

Abstract: The paper explores the distinction between two doctrines, both of which inform theory construction in much of modern cognitive psychology: the representational theory of mind and the computational theory of mind. According to the former, propositional attitudes are to be construed as relations that organisms bear to mental representations. According to the latter, mental processes have access only to formal (nonsemantic) properties of the mental representations over which they are defined.

Jerry A Fodor: LOT 2: the Language of Thought Revisited

Jerry A Fodor. *LOT 2: the Language of Thought Revisited*. English. Oxford: Oxford Univ. Press, 2010. isbn: 0199588015 9780199548774 0199548773 9780199588015 (cit. on p. 31).

Jerry A Fodor: The Language of Thought

Jerry A Fodor. *The Language of Thought*. English. Cambridge, Mass.: Harvard University Press, 1979. isbn: 0674510305 9780674510302 (cit. on p. 31).

Forster: Herder and the Birth of Modern Anthropology

Michael Forster. "Herder and the Birth of Modern Anthropology". In: *After Herder : philosophy of language in the German tradition*. Oxford ;;New York: Oxford University Press, 2010, pp. 199–243 (cit. on p. 22).

Fowler: Embodied, Embedded Language Use

Carol A. Fowler. "Embodied, Embedded Language Use". In: *Ecological Psychology* 22.4 (2010), pp. 286–303. doi: [10.1080/10407413.2010.517115](https://doi.org/10.1080/10407413.2010.517115).

Freeman: Validity in Dialogic Encounters With Hermeneutic Truths

Melissa Freeman. "Validity in Dialogic Encounters With Hermeneutic Truths". In: *Qualitative Inquiry* 17.6 (July 2011), pp. 543–551. doi: [10.1177/1077800411409887](https://doi.org/10.1177/1077800411409887).

Abstract: Hermeneutic theories of interpretation are at the core of qualitative methodologies and can be identified as belonging to either epistemological or ontological philosophical orientations. Concerns about validity in qualitative research have mainly been shaped by epistemological questions. What differentiates philosophical hermeneutics, an ontological perspective, from traditional hermeneutics is its radical departure from finding a "technique" of interpretation to proposing a hermeneutic ontology, where the hermeneutic task of understanding is thought to be our very way of being in the world. Unlike traditional interpretive approaches which often seek to maximize validity by eliciting a respondent's account of an experience in a way that closely corresponds to that experience, philosophical hermeneutical approaches assert that the meaning of the experience is uniquely configured in the dialogic encounter itself. Dialogue is thought to offer a hermeneutic valence for people's engagement with understanding and the means of encountering truth. Understanding, therefore, cannot be conceived of as a fixing of meaning but as an event in which meaning is generated and transformed. This article considers how philosophical hermeneutics might inform qualitative research when the aim is to understand.

Fultner: Inferentialism and Communicative Action

Barbara Fultner. "Inferentialism and Communicative Action: Robust Conceptions of Intersubjectivity". In: *Philosophical Studies* 108.1 (Mar. 2002), pp. 121–131. doi: [10.1023/A:1015768316114](https://doi.org/10.1023/A:1015768316114).

Gallant et al.: Symbolic Interactionism vs. Ethnomethodology

Mary J. Gallant and Sherryl Kleinman. "Symbolic Interactionism vs. Ethnomethodology". In: *Symbolic Interaction* 6.1 (May 1983). ArticleType: research-article / Full publication date: Spring 1983 /, pp. 1–18. issn: 0195-6086. url: <http://www.jstor.org/stable/10.1525/si.1983.6.1.1> (visited on 01/14/2012).

Abstract: Are ethnomethodology and symbolic interactionism essentially the same? An examination of these perspectives suggests that each offers a unique contribution to sociological knowledge. Although both perspectives have been influenced by pragmatism, ethnomethodology shares affinity with James' philosophy while symbolic interactionism is allied with Dewey's and Mead's. Both perspectives emphasize meaning and constraints, but each offers critically different conceptualizations of them. Symbolic interactionism and ethnomethodology share a verstehen outlook, yet each perspective uses different methods to gain "understanding." Hence, these perspectives differ philosophically, conceptually, and methodologically.

(GAO): Estimating the Undocumented Population: A "Grouped Answers" Approach to Surveying Foreign-Bord Respondents

U.S. General Accounting Office (GAO). *Estimating the Undocumented Population: A "Grouped Answers" Approach to Surveying Foreign-Bord Respondents*. Tech. rep. GAO-06-775. Washington

D.C.: U.S. General Accounting Office, Sept. 2006. url: <http://www.gao.gov/new.items/d06775.pdf>.

(GAO): Estimating the Undocumented Population: A “Grouped Answers” Approach to Surveying Foreign-Bord Respondents

U.S. General Accounting Office (GAO). *Estimating the Undocumented Population: A “Grouped Answers” Approach to Surveying Foreign-Bord Respondents*. Tech. rep. GAO-06-775. Washington D.C.: U.S. General Accounting Office, Sept. 2006. url: <http://www.gao.gov/new.items/d06775.pdf>.

Garfinkel: Ethnomethodology’s program

Harold Garfinkel. *Ethnomethodology’s program : working out Durkeim’s aphorism*. Ed. by Anne Warfield Rawls. Lanham, Md.: Rowman & Littlefield Publishers, 2002. isbn: 0742516415 9780742516410 0742516423 9780742516427 (cit. on p. 19).

Garfinkel: Studies in ethnomethodology

Harold Garfinkel. *Studies in ethnomethodology*. Cambridge, UK : Polity Press, 1984 (cit. on p. 19).

Goodwin: The Interactive Construction of a Sentence in Natural Conversation

Charles Goodwin. “The Interactive Construction of a Sentence in Natural Conversation”. In: *Everyday Language: Studies in Ethnomethodology*. Irvington Publishers, 1979, pp. 97–121. isbn: 9780470266700.

Gorin: Reconsidering Issues in Validity Theory

Joanna S. Gorin. “Reconsidering Issues in Validity Theory”. In: *Educational Researcher* 36.8 (Nov. 2007), pp. 456–462. doi: [10.2307/4621100](https://doi.org/10.2307/4621100). url: <http://www.jstor.org/stable/4621100> (visited on 01/27/2013).

Abstract: Lissitz and Samuelsen (2007) propose a new framework for validity theory and terminology, emphasizing a shift in the and practice toward issues of test content rather than constructs. The author of this article argues that several of Lissitz and Samuelsen’s critiques of validity theory focus on previously considered, but subsequently discarded, validity conceptualizations. In addition, she suggests that Lissitz and Samuelsen’s conceptualization returns to methods shown historically to be problematic for score use and interpretation. In doing so, she highlights developments in validity theory and practice centering on cognitively based examinations of test scores that have contributed to increased understanding of score meaning and stronger validity arguments.

H. P. Grice: Meaning

H. P. Grice. “Meaning”. In: *The Philosophical Review* 66.3 (July 1957). ArticleType: research-article / Full publication date: Jul., 1957 / Copyright © 1957 Duke University Press, pp. 377–388. issn: 00318108. url: <http://www.jstor.org/stable/2182440>.

H. P. Grice: Utterer's Meaning and Intention

H. P. Grice. "Utterer's Meaning and Intention". In: *The Philosophical Review* 78.2 (Apr. 1969). ArticleType: research-article / Full publication date: Apr., 1969 / Copyright © 1969 Duke University Press, pp. 147–177. issn: 00318108. url: <http://www.jstor.org/stable/2184179>.

H. P. Grice: Utterer's Meaning, Sentence-Meaning, and Word-Meaning

H. P. Grice. "Utterer's Meaning, Sentence-Meaning, and Word-Meaning". In: *Foundations of Language* 4.3 (Aug. 1968). ArticleType: research-article / Full publication date: Aug., 1968 / Copyright © 1968 Springer, pp. 225–242. issn: 0015900X. url: <http://www.jstor.org/stable/25000329>.

H. Paul Grice: Studies in the Way of Words

H. Paul Grice. *Studies in the Way of Words*. Harvard University Press, 1989.

Abstract: This volume, Grice's first book, includes the long-delayed publication of his enormously influential 1967 William James Lectures. But there is much, much more in this work. Paul Grice himself has carefully arranged and framed the sequence of essays to emphasize not a certain set of ideas but a habit of mind, a style of philosophizing. Grice has, to be sure, provided philosophy with crucial ideas. His account of speaker-meaning is the standard that others use to define their own minor divergences or future elaborations. His discussion of conversational implicatures has given philosophers an important tool for the investigation of all sorts of problems; it has also laid the foundation for a great deal of work by other philosophers and linguists about presupposition. His metaphysical defense of absolute values is starting to be considered the beginning of a new phase in philosophy. This is a vital book for all who are interested in Anglo-American philosophy.

P. Grice: Logic and Conversation

Paul Grice. "Logic and Conversation". In: *Studies in the Way of Words*. Cambridge Mass ;;London: Harvard University Press, 1989.

Abstract: William James Lectures, Harvard University, 1967.

Gross: A Pragmatist Theory of Social Mechanisms

Neil Gross. "A Pragmatist Theory of Social Mechanisms". en. In: *American Sociological Review* 74.3 (June 2009), pp. 358–379. doi: [10.1177/000312240907400302](https://doi.org/10.1177/000312240907400302). (Visited on 10/10/2012) (cit. on p. 26).

Abstract: Some sociologists have recently argued that a major aim of sociological inquiry is to identify the mechanisms by which cause and effect relationships in the social world come about. This article argues that existing accounts of social mechanisms are problematic because they rest on either inadequately developed or questionable understandings of social action. Building on an insight increasingly common among sociological theorists—that action should be conceptualized in terms of social

practices—I mobilize ideas from the tradition of classical American pragmatism to develop a more adequate theory of mechanisms. I identify three kinds of analytical problems the theory is especially well poised to address and then lay out an agenda for future research.

Groves: Measurement Error Across the Disciplines

Robert M Groves. "Measurement Error Across the Disciplines". In: *Measurement Errors in Surveys*. Ed. by Paul P. Biemer et al. John Wiley & Sons, Inc., Dec. 1991.

Haack et al.: Pragmatism, old & new: selected writings

Susan Haack and Robert Edwin Lane. *Pragmatism, old & new: selected writings*. Prometheus Books, Apr. 2006 (cit. on p. 31).

Abstract: Morris R. Cohen once described pragmatism as "a philosophy for people who cannot think"; and Bertrand Russell feared that pragmatism would lead philosophy into "cosmic impiety." Nothing could be further from the truth. Pragmatism was one of the most fruitful philosophical movements of the late nineteenth century, and has continued to be a significant influence on some of the major figures in philosophy — F. P. Ramsey, W. V. Quine, Sidney Hook, Nelson Goodman, Hilary Putnam, and many others. Today some even speak of a remarkable renaissance of pragmatism. Very often, though, what they have in mind is not the rich heritage of the classical pragmatist tradition, but a radical self-styled neo-pragmatism that has of late transmuted the reformist aspirations of classical pragmatism into a kind of revolutionary anti-intellectualism — a radical neo-pragmatism that seems to confirm Russell's worst fears. Asking what we can learn from the older pragmatist tradition, and what we can salvage from the intellectual shipwreck of the new, Susan Haack, with the assistance of Robert Lane, has put together a wide-ranging anthology that tells the story of the evolution of pragmatism from its origins in C. S. Peirce's hopes of making philosophy more scientific and William James's of "unstiffening our theories," to the radical literary-political neo-pragmatism recently popularized by Richard Rorty. Opening with a history of pragmatism from its inception to the present day, and closing with Haack's famous "interview" with Peirce and Rorty, the book presents a broad and diverse selection of pragmatist writings — classical and contemporary, reformist and revolutionary — on logic, metaphysics, theory of inquiry, philosophy of mind, philosophy of religion, aesthetics, philosophy of education, and moral, social, and political philosophy.

Haig: From Construct Validity to Theory Validation

Brian D. Haig. "From Construct Validity to Theory Validation". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 59–62. doi: [10.1080/15366367.2012.681975](https://doi.org/10.1080/15366367.2012.681975).

Haiman: Ritualization and the Development of Languages

J. Haiman. "Ritualization and the Development of Languages". In: *Perspectives on Grammaticalization*. Amsterdam: John Benjamins, 1994.

Hale: Uncertainty about the Rest of the Sentence

John Hale. "Uncertainty about the Rest of the Sentence". In: *Cognitive Science* 30.4 (2006), pp. 643–672. url: <http://www.eric.ed.gov/ERICWebPortal/detail?accno=EJ747089> (visited on 03/19/2012).

Abstract: A word-by-word human sentence processing complexity metric is presented. This metric formalizes the intuition that comprehenders have more trouble on words contributing larger amounts of information about the syntactic structure of the sentence as a whole. The formalization is in terms of the conditional entropy of grammatical continuations, given the words that have been heard so far. To calculate the predictions of this metric, Wilson and Carroll's (1954) original entropy reduction idea is extended to infinite languages. This is demonstrated with a mildly context-sensitive language that includes relative clauses formed on a variety of grammatical relations across the Accessibility Hierarchy of Keenan and Comrie (1977). Predictions are derived that correlate significantly with repetition accuracy results obtained in a sentence-memory experiment (Keenan & Hawkins, 1987).

Harré: Discursive Psychology and the Boundaries of Sense

Rom Harré. "Discursive Psychology and the Boundaries of Sense". In: *Organization Studies* 25.8 (Oct. 2004), pp. 1435–1453. doi: [10.1177/0170840604046351](https://doi.org/10.1177/0170840604046351). url: <http://oss.sagepub.com/content/25/8/1435.abstract> (visited on 02/06/2012).

Abstract: There are problems in applying the methodology of the natural sciences to problems in psychology. This has led to a rethinking of psychology as the study of discursive practices, including the semantics of working vocabularies and the rules governing orderly thought and action. This has an affinity with analytical philosophy. At the same time it suggests a reinterpretation of older psychological research. First-order experiments study psychological phenomena, but second-order experiments, now very common, study how people describe imaginary situations, and their reactions to them, so that it is essentially a study of discursive practices. Wittgenstein's use of the word 'grammar' suggests a convenient term for clusters of working rules. Philosophers have identified similar clusters of propositions, as a priori but synthetic propositions, expressing principles of order imposed on raw material by human beings. Psychologists have identified contingent universals which have such an ordering function. The revelation of the historical and cultural variability of such grammars opens up the possibility of richer self-understanding and of the repatterning of life systems.

Harré: The Discursive Creation of Human Psychology

Rom Harré. "The Discursive Creation of Human Psychology". In: *Symbolic Interaction* 15.4 (Nov. 1992). ArticleType: research-article / Full publication date: Winter 1992 /, pp. 515–527. issn: 0195-6086. url: <http://www.jstor.org/stable/10.1525/si.1992.15.4.515> (visited on 01/19/2012).

Harré: The Second Cognitive Revolution

Rom Harré. "The Second Cognitive Revolution". In: *After Cognitivism: A Reassessment of Cognitive Science and Philosophy*. Springer, 2009.

Harré et al.: Recent Advances in Positioning Theory

Rom Harré et al. "Recent Advances in Positioning Theory". In: *Theory & Psychology* 19.1 (Feb. 2009), pp. 5–31. issn: 0959-3543, 1461-7447. doi: [10.1177/0959354308101417](https://doi.org/10.1177/0959354308101417). url: <http://tap.sagepub.com.proxy.uchicago.edu/content/19/1/5> (visited on 01/23/2013).

Abstract: Positioning theory opens up a new dimension in the psychology of interpersonal encounters, through explicit attention to the role of rights and duties in the management of action. People are positioned or position themselves with respect to rights and duties to act within evolving story-lines, and on the basis of claims about relevant personal attributes, the discursive process of prepositioning. Some recent applications of positioning theory are presented, ranging from simple interpersonal encounters, through positioning in a complex public but limited legal struggle, to the positioning techniques used to justify civilian casualties in warfare, to the analysis of examples of the discourses by which large-scale social entities position themselves in relation to others.

Haugeland: Closing the last loophole: joining forces with Vincent Descombes

John Haugeland. "Closing the last loophole: joining forces with Vincent Descombes". In: *Inquiry* 47.3 (2004), pp. 254–266. doi: [10.1080/00201740410006366](https://doi.org/10.1080/00201740410006366) (cit. on p. 31).

Heritage: Garfinkel and ethnomethodology

John Heritage. *Garfinkel and ethnomethodology*. Cambridge [Cambridgeshire]; New York, N.Y.: Polity Press, 1984. isbn: 0745600603 9780745600604 0745600611 9780745600611 (cit. on p. 19).

Herrman: Fundamentals of Methodology - Part I

C. S. Herrman. "Fundamentals of Methodology Part I: Definitions and First Principles". In: *SSRN eLibrary* (Apr. 2009). url: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1373976 (visited on 01/21/2012).

Abstract: This eight-part series of papers presents a selection of semantic, analytic and metaphysical considerations at the heart of methodology. By 'selection' I mean that they are what a structuralist considers to be its salient and necessary tools and principles - not necessarily those that the broader 'community of scholars' finds companionable. The first paper offers a review of the series followed by analytical definitions featuring - relation, fact, principle, paradigm, methodology and theory. It concludes with a look at some 'first principles' governing paradigmatics. Future numbers treat generally of structures and signs-the metaphysical considerations necessary to paradigmatic analysis. Papers devoted to specific methods include one on frames, another on proverbs and parables. Another treats of interpolation, extrapolation and form-content analysis. Notably missing from this treatment are spe-

cialized tools of higher mathematics and formal logic that are the darlings of modern philosophy. They have their place and utility - just not in philosophy.

Hood: In Defense of an Instrument-Based Approach to Validity

S. Brian Hood. "In Defense of an Instrument-Based Approach to Validity". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 63–65. issn: 1536-6367. doi: [10.1080/15366367.2012.681976](https://doi.org/10.1080/15366367.2012.681976).

Hood: Validity in Psychological Testing and Scientific Realism

S. Brian Hood. "Validity in Psychological Testing and Scientific Realism". In: *Theory & Psychology* 19.4 (Aug. 2009), pp. 451–473. doi: [10.1177/0959354309336320](https://doi.org/10.1177/0959354309336320).

Abstract: Recent work in the conceptual foundations of psychometrics has concerned the question of validity. Borsboom and colleagues have challenged what they claim is the dominant theory of validity, that of Samuel Messick. In this paper I present Borsboom et al.'s concept of validity as a property of measurement instruments as well as Messick's concept of validity as a property of interpretive inferences. I then relate their concepts of validity to scientific realism in the philosophy of science. I argue that there can be valid psychometric tests, in Borsboom et al.'s sense, only if some version of scientific realism is true. I argue that in Borsboom et al.'s and Messick's approaches to validity, one finds the essential ingredients for a realist philosophy of science in psychological assessment. Borsboom et al. contribute semantic and ontological components while Messick provides the methodological tools for constructing an epistemology of psychological measurement. Though Borsboom et al. present their approach as an alternative to Messick's, these two approaches to validity are potentially complementary.

Hoshmand: Can Lessons of History and Logical Analysis Ensure Progress in Psychological Science?

Lisa Tsoi Hoshmand. "Can Lessons of History and Logical Analysis Ensure Progress in Psychological Science?" In: *Theory & Psychology* 13.1 (Feb. 2003), pp. 39–44. doi: [10.1177/0959354303131003](https://doi.org/10.1177/0959354303131003).

Abstract: A cultural view of science adds an important explanatory dimension to the historical account provided by Michell (2003) for the quantitative imperative. It provides an understanding of the rhetoric of paradigm wars as a cultural, sociological phenomenon. The pragmatist view of science further points to the need for evaluating our research praxis so as to determine the relative merits of diverse inquiry approaches in the interest of making improvements. Whether such progress in psychological science would be facilitated by an evolving metamethodological understanding and an awareness of the culture of academic psychology depends on the extent to which the profession will adopt a self-reflective and critical stance.

Houle et al.: Measurement and Meaning in Biology

David Houle et al. "Measurement and Meaning in Biology". In: *The Quarterly Review of Biology* 86.1 (Mar. 2011), pp. 3–34. doi: [10.1086/658408](https://doi.org/10.1086/658408).

Abstract: ABSTRACT Measurement—the assignment of numbers to attributes of the natural world—is central to all scientific inference. Measurement theory concerns the relationship between measurements and reality; its goal is ensuring that inferences about measurements reflect the underlying reality we intend to represent. The key principle of measurement theory is that theoretical context, the rationale for collecting measurements, is essential to defining appropriate measurements and interpreting their values. Theoretical context determines the scale type of measurements and which transformations of those measurements can be made without compromising their meaningfulness. Despite this central role, measurement theory is almost unknown in biology, and its principles are frequently violated. In this review, we present the basic ideas of measurement theory and show how it applies to theoretical as well as empirical work. We then consider examples of empirical and theoretical evolutionary studies whose meaningfulness have been compromised by violations of measurement-theoretic principles. Common errors include not paying attention to theoretical context, inappropriate transformations of data, and inadequate reporting of units, effect sizes, or estimation error. The frequency of such violations reveals the importance of raising awareness of measurement theory among biologists.

Houtkoop-Steenstra: Interaction and the standardized survey interview

Hanneke Houtkoop-Steenstra. *Interaction and the standardized survey interview: the living questionnaire*. Cambridge University Press, Aug. 2000.

Abstract: This is the first study of its kind to investigate in detail the interaction between interviewers and respondents in standardised social survey interviews. Applying the techniques of conversation analysis, Hanneke Houtkoop-Steenstra reveals how certain rules of normal conversation fail to apply in interviews based on a standard questionnaire, and offers original empirical evidence to show what really happens. Her book demonstrates that interview results can only be understood as products of the contingencies of the interview situation, and not, as is usually assumed, the unmediated expressions of respondents' real opinions. Her conclusions have important implications for anyone interested in effective survey compilation and interpretation. The book is highly accessible, setting out the basic tools of conversation analysis simply and clearly, and suggesting ways of improving questionnaire design wherever possible. Its approach breaks new ground and will be of great interest to students and researchers of survey methodology.

Houtkoop-Steenstra: Interaction and the standardized survey interview

Hanneke Houtkoop-Steenstra. "The standardized survey interview". In: *Interaction and the Standardized Survey Interview*. Cambridge University Press, Aug. 2000.

Abstract: This is the first study of its kind to investigate in detail the interaction between interviewers and respondents in standardised social survey interviews. Applying the techniques of conversation analysis, Hanneke Houtkoop-Steenstra reveals how certain rules of normal conversation fail to apply in interviews based on a standard questionnaire, and offers original empirical evidence to show what really happens. Her book demonstrates that interview results can only be understood as products of the contingencies of the interview situation, and not, as is usually assumed, the unmediated expressions

of respondents' real opinions. Her conclusions have important implications for anyone interested in effective survey compilation and interpretation. The book is highly accessible, setting out the basic tools of conversation analysis simply and clearly, and suggesting ways of improving questionnaire design wherever possible. Its approach breaks new ground and will be of great interest to students and researchers of survey methodology.

Howie et al.: Positioning Theory

Dorothy Howie and Michael Peters. "Positioning Theory: Vygotsky, Wittgenstein and Social Constructionist Psychology". In: *Journal for the Theory of Social Behaviour* 26.1 (Mar. 1996), pp. 51–64. issn: 1468-5914. doi: [10.1111/j.1468-5914.1996.tb00285.x](https://doi.org/10.1111/j.1468-5914.1996.tb00285.x). url: <http://onlinelibrary.wiley.com.proxy.uchicago.edu/doi/10.1111/j.1468-5914.1996.tb00285.x/abstract> (visited on 01/20/2012).

File: [Howie-PositioningTheory.pdf:/Users/gar/Documents/psychology/Howie-PositioningTheory.pdf:application/pdf](#).

Hurlbert: Pseudoreplication and the Design of Ecological Field Experiments

Stuart H. Hurlbert. "Pseudoreplication and the Design of Ecological Field Experiments". In: *Ecological Monographs* 54.2 (June 1984). ArticleType: research-article / Full publication date: Jun., 1984 / Copyright © 1984 Ecological Society of America, pp. 187–211. issn: 0012-9615. doi: [10.2307/1942661](https://doi.org/10.2307/1942661). url: <http://www.jstor.org/stable/1942661> (visited on 01/16/2014) (cit. on p. 22).

Abstract: Pseudoreplication is defined as the use of inferential statistics to test for treatment effects with data from experiments where either treatments are not replicated (though samples may be) or replicates are not statistically independent. In ANOVA terminology, it is the testing for treatment effects with an error term inappropriate to the hypothesis being considered. Scrutiny of 176 experimental studies published between 1960 and the present revealed that pseudoreplication occurred in 27% of them, or 48% of all such studies that applied inferential statistics. The incidence of pseudoreplication is especially high in studies of marine benthos and small mammals. The critical features of controlled experimentation are reviewed. Nondemonic intrusion is defined as the impingement of chance events on an experiment in progress. As a safeguard against both it and preexisting gradients, interspersions of treatments is argued to be an obligatory feature of good design. Especially in small experiments, adequate interspersions can sometimes be assured only by dispensing with strict randomization procedures. Comprehension of this conflict between interspersions and randomization is aided by distinguishing pre-layout (or conventional) and layout-specific alpha (probability of type I error). Suggestions are offered to statisticians and editors of ecological journals as to how ecologists' understanding of experimental design and statistics might be improved.

File: [JSTORFullTextPDF:/Users/gar/work/bibliography/zotero/storage/4ZCK4T5W/Hurlbert-1984-PseudoreplicationandtheDesignofEcologicalFie.pdf:application/pdf](#).

Ignatow: Theories of Embodied Knowledge: New Directions for Cultural and Cognitive Sociology

Gabriel Ignatow. "Theories of Embodied Knowledge: New Directions for Cultural and Cognitive Sociology". In: *Journal for the Theory of Social Behaviour* 37.2 (June 2007), pp. 115–135. doi: [10.1111/j.1468-5914.2007.00328.x](https://doi.org/10.1111/j.1468-5914.2007.00328.x) (cit. on p. 32).

Abstract: Sociological propositions about the workings of cognition are rarely specified or tested, but are of central relevance to studies of culture, social judgment, and social movements. This paper draws out lessons of recent work from sociological theory, cognitive science, psychology, and neuroscience on the embodied nature of knowledge and thought, and develops implications of these lessons for cultural and cognitive sociology. Knowledge ought to be conceived of as fundamentally embodied, because sensory information is a fundamental component of experience as it is stored in long-term memory, and because bodily responses and intuitions often precede reflexive or strategic thought. I argue that the challenge of embodied knowledge for cultural sociology is threefold: to develop cultural theories of motivation; to specify the ways in which the body structures discourses endogenously; and to specify how embodied motivations and embodied discourses interact.

Jackson: Mental Causation

Frank Jackson. "Mental Causation". In: *Mind* 105.419 (July 1996), pp. 377–413. url: <http://www.jstor.org/stable/2254828> (visited on 12/08/2013) (cit. on p. 26).

Kane: All Validity Is Construct Validity. Or Is It?

Michael Kane. "All Validity Is Construct Validity. Or Is It?" In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 66–70. issn: 1536-6367. doi: [10.1080/15366367.2012.681977](https://doi.org/10.1080/15366367.2012.681977).

Kauppinen: The Rise and Fall of Experimental Philosophy

Antti Kauppinen. "The Rise and Fall of Experimental Philosophy". In: *Philosophical Explorations* 10.2 (2007), pp. 95–118. doi: [10.1080/13869790701305871](https://doi.org/10.1080/13869790701305871).

Abstract: In disputes about conceptual analysis, each side typically appeals to pre-theoretical 'intuitions' about particular cases. Recently, many naturalistically oriented philosophers have suggested that these appeals should be understood as empirical hypotheses about what people would say when presented with descriptions of situations, and have consequently conducted surveys on non-specialists. I argue that this philosophical research programme, a key branch of what is known as 'experimental philosophy', rests on mistaken assumptions about the relation between people's concepts and their linguistic behaviour. The conceptual claims that philosophers make imply predictions about the folk's responses only under certain demanding, counterfactual conditions. Because of the nature of these conditions, the claims cannot be tested with methods of positivist social science. We are, however, entitled to appeal to intuitions about folk concepts in virtue of possessing implicit normative knowledge acquired through reflective participation in everyday linguistic practices.

Kiesselbach: Constructing Commitment: Brandom's Pragmatist Take on Rule-Following

Matthias Kiesselbach. "Constructing Commitment: Brandom's Pragmatist Take on Rule-Following". en. In: *Philosophical Investigations* 35.2 (2012), pp. 101–126. doi: [10.1111/j.1467-9205.2011.01450.x](https://doi.org/10.1111/j.1467-9205.2011.01450.x). (Visited on 12/14/2012).

Abstract: According to a standard criticism, Robert Brandom's "normative pragmatics", i.e. his attempt to explain normative statuses in terms of practical attitudes, faces a dilemma. If practical attitudes and their interactions are specified in purely non-normative terms, then they underdetermine normative statuses; but if normative terms are allowed into the account, then the account becomes viciously circular. This paper argues that there is no dilemma, because the feared circularity is not vicious. While normative claims do exhibit their respective authors' practical attitudes and thereby contribute towards establishing the normative statuses they are about, this circularity is not a mark of Brandom's explanatory strategy but a feature of social practice of which we theorists partake.

King et al.: Enhancing the Validity and Cross-cultural Comparability of Measurement in Survey Research

Gary King et al. "Enhancing the Validity and Cross-cultural Comparability of Measurement in Survey Research". In: *American Political Science Review* 98 (2004), pp. 191–207. doi: [10.1007/978-3-531-91826-6_16](https://doi.org/10.1007/978-3-531-91826-6_16).

Abstract: We address two long-standing survey research problems: measuring complicated concepts, such as political freedom or efficacy, that researchers define best with reference to examples and and what to do when respondents interpret identical questions in different ways. Scholars have long addressed these problems with approaches to reduce incomparability, such as writing more concrete questions – with uneven success. Our alternative is to measure directly response category incomparability and to correct for it. We measure incomparability via respondents' assessments, on the same scale as the self-assessments to be corrected, of hypothetical individuals described in short vignettes. Since actual levels of the vignettes are invariant over respondents, variability in vignette answers reveals incomparability. Our corrections require either simple recodes or a statistical model designed to save survey administration costs. With analysis, simulations, and cross-national surveys, we show how response incomparability can drastically mislead survey researchers and how our approach can fix them.

Kirschner: Sociocultural Subjectivities Progress, Prospects, Problems

Suzanne R. Kirschner. "Sociocultural Subjectivities Progress, Prospects, Problems". In: *Theory & Psychology* 20.6 (Dec. 2010), pp. 765–780. issn: 0959-3543, 1461-7447. doi: [10.1177/0959354310375745](https://doi.org/10.1177/0959354310375745). url: <http://tap.sagepub.com.proxy.uchicago.edu/content/20/6/765> (visited on 01/23/2013).

Abstract: Strongly constitutive sociocultural perspectives in psychology have become more developed and influential in recent decades, particularly during the past 15 years. These approaches include constructionist, discursive, relational, dialogical, and neo-Vygotskian theories. They diverge from one another in some respects, but are alike in that they all consider psychological processes, such as mind

and self, to emerge out of social, cultural, and historical contexts. This paper explores some central themes and commitments that inhere in these approaches, particularly with regard to how subjectivity is historically and relationally constituted. It emphasizes the importance of further legitimizing them within psychology and adjacent disciplines. It also points out some current limitations, suggesting that they risk what social theorist Dennis Wrong called an “oversocialized” conception of human beings.

Kitzinger: After post-cognitivism

Celia Kitzinger. “After post-cognitivism”. In: *Discourse Studies* 8.1 (Feb. 2006), pp. 67–83. doi: [10.1177/1461445606059556](https://doi.org/10.1177/1461445606059556) (cit. on p. 32).

Abstract: This article briefly considers the convergence and divergence between Discursive Psychology (DP) and Conversation Analysis (CA), in relation to cognition in talk-in-interaction. It explores the possibilities for research that begins from, rather than argues for, a post-cognitive perspective. Drawing in particular on an analysis of a single fragment of conversation, I suggest three analytic areas for researchers concerned both with talk-in-interaction and with cognition: i) the social organization of cognitive displays and embodiments; ii) the (re)production of taken-for-granted culture through ‘internalized social norms’; iii) cognitions (e.g. memories) made manifest in interaction, as the cognitive infrastructure upon which talk-in-interaction depends. After post-cognitivism, research in these areas can contribute both to scholarly understanding of cognition, and to the emerging discipline of CA.

Kivinen et al.: Sociologizing Metaphysics and Mind

Osmo Kivinen and Tero Piironen. “Sociologizing Metaphysics and Mind: A Pragmatist Point of View on the Methodology of the Social Sciences”. In: *Human Studies* 30.2 (Jan. 2007), pp. 97–114. doi: [10.2307/27642785](https://doi.org/10.2307/27642785) (cit. on p. 32).

Abstract: There are realist philosophers and social scientists who believe in the indispensability of social ontology. However, we argue that certain pragmatist outlines for inquiry open more fruitful roads to empirical research than such ontologizing perspectives. The pragmatist conceptual tools in a Darwinian vein—concepts like action, habit, coping and community—are in a particularly stark contrast with, for instance, the Searlean and Chomskian metaphysics of human being. In particular, we bring Searle’s realist philosophy of society and mind under critical survey in this paper and contrast it with a pragmatist, sociologizing approach. Drawing from Dewey, James, and recent antirepresentationalism, we propose for research work a methodological relationalism of its own kind, altogether detached from the ontologies of society and mind.

Kivinen et al.: The Relevance of Ontological Commitments in Social Sciences

Osmo Kivinen and Tero Piironen. “The Relevance of Ontological Commitments in Social Sciences: Realist and Pragmatist Viewpoints”. en. In: *Journal for the Theory of Social Behaviour* 34.3 (2004), pp. 231–248. doi: [10.1111/j.0021-8308.2004.00246.x](https://doi.org/10.1111/j.0021-8308.2004.00246.x) (cit. on p. 32).

Abstract: The article discusses the relevance of ontology, the metaphysical study of being, in social sciences through a comparison of three distinct outlooks: Roy Bhaskar’s version of critical realism,

a pragmatic realist approach the most renowned representatives of which are Rom Harré and Hilary Putnam, and the authors' own synthesis of the pragmatist John Dewey's and the neopragmatist Richard Rorty's ideas, here called methodological relationalism. The Bhaskarian critical realism is committed to the heavy ontological furniture of metaphysical transcendentalism, resting on essentialist presumptions of causality and social structures, tacitly creating a dualism between individuals and society. Pragmatic realists, for their part, carry much lighter metaphysical baggage than critical realists and, much in a pragmatist vein, accept the idea that social scientists should study society by studying social life—the interwoven activities of individuals. Nevertheless, pragmatic realists only reluctantly, if at all, renounce the subject–object dualism and its ontological implications. Drawing on the ideas of Donald Davidson and Richard Rorty, the writers outline their own antirepresentationalist, antiessentialist approach to social sciences. The proposed methodological relationalism is a pragmatist approach of Deweyan origin. Based on a Darwinian understanding of human beings as organisms trying to cope with their environment, it emphasises the insight that one can neither step outside one's own action, nor withdraw from the actor's point of view, just as one cannot cognitively step outside language.

Kline: Commentary on Michell, Quantitative Science and the definition of measurement in psychology

Paul Kline. "Commentary on Michell, Quantitative Science and the definition of measurement in psychology". In: *British Journal of Psychology* 88.3 (1997), pp. 358–387. doi: [10.1111/j.2044-8295.1997.tb02642.x](https://doi.org/10.1111/j.2044-8295.1997.tb02642.x).

Knobe: Experimental Philosophy and Philosophical Significance

Joshua Knobe. "Experimental Philosophy and Philosophical Significance". In: *Philosophical Explorations* 10.2 (2007), pp. 119–121. doi: [10.1080/13869790701305905](https://doi.org/10.1080/13869790701305905).

Abstract: Kauppinen argues that experimental philosophy cannot help us to address questions about the semantics of our concepts and that it therefore has little to contribute to the discipline of philosophy. This argument raises fascinating questions in the philosophy of language, but it is simply a red herring in the present context. Most researchers in experimental philosophy were not trying to resolve semantic questions in the first place. Their aim was rather to address a more traditional sort of question, the sort of question that was regarded as absolutely central in the period before the rise of analytic philosophy.

Knobe: Experiments in Philosophy

Joshua Knobe. *Experiments in Philosophy*. <http://opinionator.blogs.nytimes.com/2010/09/07/experimental-philosophy/>. Sept. 7, 2010. url: <http://opinionator.blogs.nytimes.com/2010/09/07/experimental-philosophy/> (visited on 12/24/2012).

Abstract: How can scientific experiments possibly help us to answer the traditional questions of philosophy?

Knobe et al.: Experimental Philosophy

Joshua Knobe et al. "Experimental Philosophy". In: *Annual Review of Psychology* 63.1 (2012), pp. 81–99. doi: [10.1146/annurev-psych-120710-100350](https://doi.org/10.1146/annurev-psych-120710-100350).

Abstract: Experimental philosophy is a new interdisciplinary field that uses methods normally associated with psychology to investigate questions normally associated with philosophy. The present review focuses on research in experimental philosophy on four central questions. First, why is it that people's moral judgments appear to influence their intuitions about seemingly nonmoral questions? Second, do people think that moral questions have objective answers, or do they see morality as fundamentally relative? Third, do people believe in free will, and do they see free will as compatible with determinism? Fourth, how do people determine whether an entity is conscious?

Knowles et al.: Pragmatism, science and naturalism

Jonathan Knowles and Henrik Rydenfelt. *Pragmatism, science and naturalism*. English. Frankfurt am Main; New York: Peter Lang, 2011.

Abstract: A critical investigation of modern naturalism is vitally needed for a deeper understanding of pragmatism's ability to offer enriching perspectives on contemporary philosophy of science. The kind of non-reductive naturalism so often associated with pragmatism needs to be assessed for its plausibility, as does whether a pragmatist perspective on different human ways of conceiving of the world can mediate between different points of view, especially those of natural science and common sense.

Kono: The 'extended mind' approach for a new paradigm of psychology

Tetsuya Kono. "The 'extended mind' approach for a new paradigm of psychology". In: *Integr Psychol Behav Sci* 44.4 (Dec. 2010). PMID: 20499217, pp. 329–339. doi: [10.1007/s12124-010-9128-5](https://doi.org/10.1007/s12124-010-9128-5) (cit. on p. 32).

Abstract: In this paper, I would like to propose the idea of "extended mind" for a new paradigm of psychology. Kohler (Integrative Psychology & Behavioral Science 44:39-57, 2010) correctly pointed out the serious problems of the machine paradigm, and proposed the "organic" view as a new paradigm. But the term "organic" signifying the processes inside the body, is inadequate to express the characteristic of human mind. The recent philosophy of mind suggests that the mind is realized neither only in the brain nor only in the body, but in the whole system of brain-body-environment, namely, in the "extended mind". The characteristic of human mind resides in the interaction with the mediating tools, artifacts, and the humanized environment. We should propose an "extended mind approach" or an "ecological approach to humanized environment" as a new paradigm for a psychology.

Kraut: Varieties of Pragmatism

Robert Kraut. "Varieties of Pragmatism". In: *Mind* 99.394 (Apr. 1990), pp. 157–183. url: <http://www.jstor.org/stable/2254958> (visited on 12/08/2013) (cit. on pp. 19, 30).

Kroon: Theory-dependence, warranted reference, and the epistemic dimensions of realism

Frederick Kroon. "Theory-dependence, warranted reference, and the epistemic dimensions of realism". In: *Euro Jnl Phil Sci* 1.2 (May 2011), pp. 173–191. doi: [10.1007/s13194-010-0004-4](https://doi.org/10.1007/s13194-010-0004-4).

Abstract: The question of the role of theory in the determination of reference of theoretical terms continues to be a controversial one. In the present paper I assess a number of responses to this question (including variations on David Lewis's appeal to Ramsification), before describing an alternative, epistemically oriented account of the reference-determination of such terms. The paper concludes by discussing some implications of the account for our understanding of both realism and such competitors of realism as constructive empiricism.

Laming: A critique of a measurement–theoretic critique

Donald Laming. "A critique of a measurement–theoretic critique: Commentary on Michell, Quantitative science and the definition of measurement in psychology". In: *British Journal of Psychology* 88.3 (1997), pp. 389–391. doi: [10.1111/j.2044-8295.1997.tb02643.x](https://doi.org/10.1111/j.2044-8295.1997.tb02643.x).

Abstract: Over the past 40 years there has been much theoretical progress in the understanding of what it means to make measurements. If numbers are assigned to objects or events, the kinds of arithmetical operations (such as averaging or calculating ratios) which it is thereafter meaningful to carry out on the numbers depend on the rule of assignment. Measurement theory, roughly speaking, is concerned to identify what conditions need to be satisfied to make this or that arithmetical operation meaningful. Measurement theorists, generally, feel that psychologists have disregarded their work, to the detriment of the development of psychology as a natural science. Michell's article is a polemic—a very scholarly and well-argued polemic—addressing this issue. It would have helped his argument, however, to have explained why measurement theory should matter to psychologists, and I endeavour, first of all, to remedy that deficit.

S. Lane: Consequences of Assessment and Accountability Systems Are Integral to the Argument-Based Approach to Validity

Suzanne Lane. "Consequences of Assessment and Accountability Systems Are Integral to the Argument-Based Approach to Validity". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 71–74. doi: [10.1080/15366367.2012.679160](https://doi.org/10.1080/15366367.2012.679160). (Visited on 01/24/2013).

Lawrence et al.: Three approaches to the disjunction between psychological measurement and psychological persons

Jeanette A Lawrence and Agnes E Dodds. "Three approaches to the disjunction between psychological measurement and psychological persons: methodological and ethical considerations". In: *Integr Psychol Behav Sci* 44.4 (Dec. 2010). PMID: 20490955, pp. 299–309. doi: [10.1007/s12124-010-9129-4](https://doi.org/10.1007/s12124-010-9129-4).

Abstract: In this paper, we take forward Schwarz's (2009) disjunction between measurement-apparatus-questionnaire and measurement-apparatus-man to examine how the crisis in contemporary psychology is related to assumptions about two sets of connections in research: connections between research tools, research behaviours, and psychological phenomena; and connections between researchers and researchees. By setting up a research problem with methodological and ethical implications, we de-

scribe three approaches that involve different assumptions and research activities in relation to the ways each makes these connections: Disassociated, Conventionally Connected and Persons in Dialogue Approaches. We argue that a Persons in Dialogue Approach is the most appropriate approach for a 21st Century psychology in crisis.

Leidlmaier: After Cognitivism: A Reassessment of Cognitive Science and Philosophy

Karl Leidlmaier, ed. *After Cognitivism: A Reassessment of Cognitive Science and Philosophy*. Dordrecht [etc.]: Springer, 2009 (cit. on p. 32).

Abstract: The present book comprises a collection of papers dealing with the reassessment of thinking in Cognitive Science and in Philosophy today. Still dependent on basic assumptions of Cartesian philosophy, Cognitive Science took over the mistakes of classical computational models. Instead of being treated as mere or pure explanations of mental processes with hindsight, these models were mistakenly used as more or less literal causal descriptions of the (working of the) mind. A clear insight into the relevance of embodied and embedded knowledge is not only a central topic in AI research; it can become a driving force for a reassessment of philosophy. Philosophy, which is struggling with the two opposite alternatives of cultural relativism and rationalism, both of which have turned out to be dead ends, is in need of a reassessment of reasoning. What is needed is a reasoning without reference to ultimate reasons which at the same time is grounded (and doesn't fall into the trap of cultural relativism).

Lewis: Psychophysical and theoretical identifications

David Lewis. "Psychophysical and theoretical identifications". In: *Australasian Journal of Philosophy* 50.3 (1972), pp. 249–258. doi: [10.1080/00048407212341301](https://doi.org/10.1080/00048407212341301).

Lissitz et al.: Validity is an Action Verb

Robert W. Lissitz and Tiago Calıço. "Validity is an Action Verb: Commentary on: "Clarifying the Consensus Definition of Validity"". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 75–79. doi: [10.1080/15366367.2012.677346](https://doi.org/10.1080/15366367.2012.677346).

Lissitz et al.: A Suggested Change in Terminology and Emphasis regarding Validity and Education

Robert W. Lissitz and Karen Samuelsen. "A Suggested Change in Terminology and Emphasis regarding Validity and Education". In: *Educational Researcher* 36.8 (Nov. 2007), pp. 437–448. doi: [10.3102/0013189X07311286](https://doi.org/10.3102/0013189X07311286).

Abstract: This article raises a number of questions about the current unified theory of test validity that has construct validity at its center. The authors suggest a different way of conceptualizing the problem of establishing validity by considering whether the focus of the investigation of a test is internal to the test itself or focuses on constructs and relationships that are external to the test. They also consider whether the perspective on the test examination is theoretical or practical. The resulting taxonomy, encompassing both investigative focus and perspective, serves to organize a reconceptualization of the

field of validity studies. The authors argue that this approach, together with changes in the rest of the terminology regarding validity, leads to a more understandable and usable model.

Lissitz et al.: Further Clarification regarding Validity and Education

Robert W. Lissitz and Karen Samuelsen. "Further Clarification regarding Validity and Education". In: *Educational Researcher* 36.8 (Nov. 2007), pp. 482–484. doi: [10.2307/4621104](https://doi.org/10.2307/4621104). url: <http://www.jstor.org/stable/4621104> (visited on 01/27/2013).

Lloyd: Cognitive variations

G. E. R Lloyd. *Cognitive variations : reflections on the unity and diversity of the human mind*. English. Oxford; New York: Clarendon Press ; Oxford University Press, 2007. isbn: 9780199214617 0199214611 9780199566259 0199566259.

Abstract: Sir Geoffrey Lloyd presents a cross-disciplinary exploration of the unity and diversity of the human mind. He discusses cultural variations with regard to ideas of colour, emotion, health, the self, agency and causation, reasoning, and other fundamental aspects of human cognition.

Lloyd: Demystifying mentalities

G. E. R Lloyd. *Demystifying mentalities*. English. Cambridge; New York: Cambridge University Press, 1990. isbn: 0521366615 9780521366618 0521366801 9780521366809.

Loeffler: Neo-Pragmatist (Practice-Based) Theories of Meaning

Ronald Loeffler. "Neo-Pragmatist (Practice-Based) Theories of Meaning". In: *Philosophy Compass* 4.1 (2009), pp. 197–218. doi: [10.1111/j.1747-9991.2008.00186.x](https://doi.org/10.1111/j.1747-9991.2008.00186.x) (cit. on p. 19).

Abstract: In recent years, several systematic theories of linguistic meaning have been offered that give pride of place to linguistic practice, or the process of linguistic communication. Often these theories are referred to as neo-pragmatist or new pragmatist; I call them 'practice-based'. According to practice-based theories of meaning, the process of linguistic communication is somehow constitutive of, or otherwise essential for the existence of, propositional linguistic meaning. Moreover, these theories disavow, or downplay, the semantic importance of inflationary notions of representation. I introduce the basic ideas and motives behind some practice-based theories of meaning, and offer some reasons why an eliminativist, non-quietist, epistemic practice-based approach to meaning that 1) disavows any explanatory role for the linguistic community as such, 2) prioritizes sentence meaning over word meaning, and 3) may, in the end, be naturalistic, should be favored over its practice-based competitors.

Lollini: On Becoming Human: The *Verum Factum* Principle and Giambattista Vico's Humanism

Massimo Lollini. "On Becoming Human: The *Verum Factum* Principle and Giambattista Vico's Humanism". In: *MLN* 127.1S (2012), S21–S31. doi: [10.1353/mln.2012.0047](https://doi.org/10.1353/mln.2012.0047) (cit. on p. 12).

Lovasz et al.: On defining and interpreting constructs: Ontological and epistemological constraints

Nathalie Lovasz and Kathleen L. Slaney. "What makes a hypothetical construct "hypothetical"? Tracing the origins and uses of the 'hypothetical construct' concept in psychological science". In: *New Ideas in Psychology* 31.1 (Apr. 2013), pp. 22–31. doi: [10.1016/j.newideapsych.2011.02.005](https://doi.org/10.1016/j.newideapsych.2011.02.005).

Abstract: The "hypothetical construct" has been an important concept in philosophy of science for the past half century. References to the concept date as far back as 1943 (Loomba, 1943). Inconsistencies in the use of the term and the related 'intervening variable' concept prompted MacCorquodale and Meehl (1948) to distinguish the two concepts and propose conventions for their employment in psychological discourse. They recommended that 'hypothetical construct' designates theoretical concepts that "refer to processes or entities that are not directly observed" and, thus, fail to meet the requirements of intervening variables (p. 104). It is interesting to speculate what makes a hypothetical construct "hypothetical." The motivation for attaching "hypothetical" to constructs is not always immediately apparent. The aim of this paper is to trace the origins of the expression 'hypothetical construct', delineate its employment in psychology, and explore the ontological and epistemological presuppositions that underlie conceptions of hypothetical constructs.

Lovie: Commentary on Michell, Quantitative science and the definition of measurement in psychology

A. D. Lovie. "Commentary on Michell, Quantitative science and the definition of measurement in psychology". In: *British Journal of Psychology* 88.3 (1997), pp. 393–394. doi: [10.1111/j.2044-8295.1997.tb02644.x](https://doi.org/10.1111/j.2044-8295.1997.tb02644.x).

Lowe: Non-Cartesian Substance Dualism and the Problem of Mental Causation

E. J. Lowe. "Non-Cartesian Substance Dualism and the Problem of Mental Causation". In: *Erkenntnis* (1975-) 65.1 (Jan. 2006), pp. 5–23. url: <http://www.jstor.org/stable/27667849> (visited on 12/08/2013) (cit. on p. 26).

Abstract: Non-Cartesian substance dualism (NCSD) maintains that persons or selves are distinct from their organic physical bodies and any parts of those bodies. It regards persons as 'substances' in their own right, but does not maintain that persons are necessarily separable from their bodies, in the sense of being capable of disembodied existence. In this paper, it is urged that NCSD is better equipped than either Cartesian dualism or standard forms of physicalism to explain the possibility of mental causation. A model of mental causation adopting the NCSD perspective is proposed which, it is argued, is consistent with all that is currently known about the operations of the human central nervous system, including the brain. Physicalism, by contrast, seems ill-equipped to explain the distinctively intentional or teleological character of mental causation, because it effectively reduces all such causation to 'blind' physical causation at a neurological level.

Lowe: The Causal Autonomy of the Mental

E. J. Lowe. "The Causal Autonomy of the Mental". In: *Mind* 102.408 (Oct. 1993), pp. 629–644. url: <http://www.jstor.org/stable/2254049> (visited on 12/08/2013) (cit. on p. 26).

Luce: Quantification and symmetry

R. Duncan Luce. "Quantification and symmetry: Commentary on Michell, Quantitative science and the definition of measurement in psychology". In: *British Journal of Psychology* 88.3 (1997), pp. 395–398. doi: [10.1111/j.2044-8295.1997.tb02645.x](https://doi.org/10.1111/j.2044-8295.1997.tb02645.x).

Abstract: Several of Michell's points are amplified and emphasized and the following additional point is made. Most quantitative attributes can be measured in more than one way, and there are interesting questions about how they relate. Among other things, units of measurement and symmetries of the underlying structure may or may not agree. Because I agree with almost everything Michell says, my commentary is restricted to some amplification and to an added observation.

Luce et al.: Representational Measurement Theory

R. Duncan Luce and Patrick Suppes. "Representational Measurement Theory". In: *Stevens' Handbook of Experimental Psychology*. John Wiley & Sons, Inc., 2002. url: <http://onlinelibrary.wiley.com.proxy.uchicago.edu/doi/10.1002/0471214426.pas0401/abstract> (visited on 01/27/2013).

Abstract: This chapter focuses on empirical structures, with an ordering attribute, leading to numerical or geometric representations. A historical sketch of physical, behavioral, and social science measurement until 1950 is followed by modern approaches to representational measurement in the behavioral sciences. Among these structures are: difference, additive conjoint, averaging, and non-additive concatenation and conjoint structures. Derived measurement is described by distributive linkages between two structures with a common attribute and is exemplified by physical, utility, and psychophysical examples. Two mathematical results are needed in each case: the existence of structure-preserving numerical representations and their uniqueness. The latter has been analyzed generically. Using these ideas, models of magnitude estimation and production are summarized. The nature of axiomatization is discussed in terms of types of logical languages, the role of certain second-order axioms, and issues of consistency and independence of axioms. Important results about the impossibility of simple axiomatizations of classes of finite structures are described along with mention of some problems.

Lycan: Representational Theories of Consciousness

William Lycan. "Representational Theories of Consciousness". In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Fall 2008. 2008. url: <http://plato.stanford.edu/archives/fall2008/entries/consciousness-representational/>.

Lynch: Cognitive activities without cognition?

Michael Lynch. "Cognitive activities without cognition? ethnomethodological investigations of selected 'cognitive' topics". In: *Discourse Studies* 8.1 (Feb. 2006), pp. 95–104. doi: [10.1177/1461445606059559](https://doi.org/10.1177/1461445606059559) (cit. on p. 19).

Abstract: Ethnomethodology and conversation analysis (ethno/CA) investigate many of the activities that are featured in the cognitive sciences. These include memory, learning, perception, and calculative activities. However, for ethno/CA such activities are not necessarily ‘cognitive’, and their investigation as activities does not necessarily require observation or speculation about what goes on within the mind or brain. This article briefly discusses three examples of nominal ‘cognitive’ activities: looking-for/seeing; failing to recall; and counting things and people. The discussion suggests how these examples can be understood and elucidated in a way that has little to do with any existing program in cognitive science. The modest aim of the article is not to persuade readers that ethno/CA can contribute to cognitive studies. Instead, I argue that ethno/CA offers a path not taken in cognitive science: a viable research program for investigating nominally ‘cognitive’ themes without trading in mentalistic notions of cognition.

Lynch: Ethnomethodology and the logic of practice

Michael Lynch. “Ethnomethodology and the logic of practice”. In: *The Practice Turn in Contemporary Theory*. Routledge, 2001, pp. 140–157 (cit. on p. 19).

Lynch: Method: Measurement - ordinary and scientific measurement as ethnomethodological phenomena

Michael Lynch. “Method: Measurement - ordinary and scientific measurement as ethnomethodological phenomena”. In: *Ethnomethodology and the Human Sciences*. Cambridge Univ. Press, 1991, pp. 77–108.

C. MacDonald et al.: Mental Causes and Explanation of Action

Cynthia MacDonald and Graham MacDonald. “Mental Causes and Explanation of Action”. In: *The Philosophical Quarterly* 36.143 (Apr. 1986). ArticleType: research-article / Issue Title: Special Issue: Mind, Causation and Action / Full publication date: Apr., 1986 / Copyright © 1986 The Philosophical Quarterly, pp. 145–158. doi: [10.2307/2219765](https://doi.org/10.2307/2219765) (cit. on p. 26).

Macdonald et al.: The Nature of Naturalism

Graham Macdonald and Philip Pettit. “The Nature of Naturalism”. In: *Proceedings of the Aristotelian Society, Supplementary Volumes* 66 (Jan. 1992), pp. 225–266. issn: 0309-7013. url: <http://www.jstor.org/stable/4106978> (visited on 12/08/2013) (cit. on p. 19).

Malachowski: The New Pragmatism

Alan R. Malachowski. *The New Pragmatism*. Acumen, 2010.

Abstract: This book sets out to explain what it is about Pragmatism that makes it such a distinctively attractive prospect to so many thinkers, even in previously hostile traditions. AlanMalachowski sets out in a clear and accessible manner the original guiding thoughts behind the Pragmatist approach to philosophy and examines how these thoughts have faired in the hands of those largely responsible for the present revival (Putnam and Rorty). The Pragmatism that emerges from this exploration of its ”classic”

and "new wave" forms is then assessed in terms of both its philosophical potential and its wider cultural contribution. Readers will emerge from the book with a more secure grip on what Pragmatism involves and a clearer grasp of what it has to offer and what its current resurgence is all about.

Malcolm: Wittgenstein: The relation of language to instinctive behaviour

Norman Malcolm. "Wittgenstein: The relation of language to instinctive behaviour". In: *Philosophical Investigations* 5.1 (Jan. 1982), pp. 3–22. doi: [10.1111/j.1467-9205.1982.tb00531.x](https://doi.org/10.1111/j.1467-9205.1982.tb00531.x).

Maraun: Validity and Measurement

Michael D. Maraun. "Validity and Measurement". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 80–83. issn: 1536-6367. doi: [10.1080/15366367.2012.682523](https://doi.org/10.1080/15366367.2012.682523).

Maraun et al.: On defining and interpreting constructs: Ontological and epistemological constraints

Michael D. Maraun and Stephanie M. Gabriel. "Illegitimate concept equating in the partial fusion of construct validation theory and latent variable modeling". In: *New Ideas in Psychology* 31.1 (Apr. 2013), pp. 32–42. doi: [10.1016/j.newideapsych.2011.02.006](https://doi.org/10.1016/j.newideapsych.2011.02.006).

Abstract: There has come to exist a partial fusion of construct validation theory and latent variable modeling at the center of which is located a practice of equating concepts such as construct, factor, latent variable, concept, unobservable, unmeasurable, underlying, hypothetical variable, theoretical term, theoretical variable, intervening variable, cause, abstractive property, functional unity, and measured property. In the current paper we: a) provide a structural explanation of this concept equating; b) provide arguments to the effect that it is illegitimate; c) suggest that the singular reason for the presence of construct in the literature of the social and behavioral sciences is to mark an allowance taken by the social and behavioral scientist to obliterate the concept/referent distinction that is foundational of sound science.

Margolis: Pragmatism without foundations

Joseph Margolis. *Pragmatism without foundations: reconciling realism and relativism*. 2nd ed. London ; New York: Continuum, 2007. isbn: 9780826491374 (cit. on p. 19).

Margolis: Reinventing pragmatism

Joseph Margolis. *Reinventing pragmatism: American philosophy at the end of the 20th century*. Cornell University Press, 2002. isbn: 9780801439957 (cit. on p. 19).

Abstract: In contemporary philosophical debates in the United States "redefining pragmatism" has become the conventional way to flag significant philosophical contests and to launch large conceptual and programmatic changes. This book analyzes the contributions of such developments in light of the classic formulations of Charles S. Peirce and John Dewey and the interaction between pragmatism and analytic philosophy. American pragmatism was revived quite unexpectedly in the 1970s by Richard Rorty's philosophical heterodoxy and his running dispute with Hilary Putnam, who, like Rorty, is a

professed Deweyan. *Reinventing Pragmatism* examines the force of the new pragmatisms, from the emergence of Rorty's and Putnam's basic disagreements of the 1970s until the turn of the century. Joseph Margolis considers the revival of a movement generally thought to have ended by the 1950s as both a surprise and a turn of great importance. The quarrel between Rorty and Putnam obliged American philosophers, and eventually Eurocentric philosophy as a whole, to reconsider the direction of American and European philosophy, for instance in terms of competing accounts of realism and naturalism.

Margulis: Measurement Error and Reliability

S.W. Margulis. "Measurement Error and Reliability". In: *Encyclopedia of Animal Behavior*. Ed. by Editors-in-Chief: Michael D. Breed and Janice Moore. Oxford: Academic Press, 2010, pp. 424–428. url: <http://www.sciencedirect.com/science/article/pii/B978008045337800231X>.

Abstract: The common perception of behavioral data collection as a subjective process, data being largely descriptive and not amenable to quantitative analysis, is false. The clearly defined methods of observational sampling provide the necessary framework within which to collect quantitative behavioral data. However, as with any scientific endeavor, such methods are subject to various sources of error. It is important to recognize these sources of error in order to control them during the data collection process. Techniques exist to address these various sources of error and bias, and enable behavioral researchers to compile data that are reliable, repeatable, and unbiased.

Markus: Constructs and Attributes in Test Validity

Keith A. Markus. "Constructs and Attributes in Test Validity: Reflections on Newton's Account". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 84–87. doi: [10.1080/15366367.2012.677348](https://doi.org/10.1080/15366367.2012.677348).

Markus: Science, Measurement, and Validity

Keith A. Markus. "Science, Measurement, and Validity: Is Completion of Samuel Messick's Synthesis Possible?" In: *Social Indicators Research* 45.1/3 (Nov. 1998), pp. 5–34. doi: [10.1023/A:1006960823277](https://doi.org/10.1023/A:1006960823277).

Abstract: Messick's (1989) theory of test validity is profoundly influential (Hubley and Zumbo, 1996; Angoff, 1988) in part because it brings together disparate contributions into a unified framework for building validity arguments. At the heart of Messick's theory lies a synthesis of realism and constructivism with respect to both scientific facts and measurement. Within this synthesis there remains a tension between the evidential basis and the consequential basis for test interpretation and use. This cannot be sidestepped simply by limiting the evidential basis to test interpretation and the consequential basis to test use: Interpretation and use are not so easily held separate. The roles of constructivism and context in Messick's theory underline the inherent link between facts and values, but the assumption that facts are objective and values are subjective goes unquestioned in Messick's theory. The inherent link between facts and values combines with this assumption to produce the unresolved tension in Messick's theory. This suggests that a unified theory of test validity requires a theory of value justification.

Markus et al.: On defining and interpreting constructs: Ontological and epistemological constraints

Keith A. Markus and Denny Borsboom. “Reflective measurement models, behavior domains, and common causes”. In: *New Ideas in Psychology* 31.1 (Apr. 2013), pp. 54–64. doi: [10.1016/j.newideapsych.2011.02.008](https://doi.org/10.1016/j.newideapsych.2011.02.008).

Abstract: Causal theories of measurement view test items as effects of a common cause. Behavior domain theories view test item responses as behaviors sampled from a common domain. A domain score is a composite score over this domain. The question arises whether latent variables can simultaneously constitute domain scores and common causes of item scores. One argument to the contrary holds that behavior domain theory offers more effective guidance for item construction than a causal theory of measurement. A second argument appeals to the apparent circularity of taking a domain score, which is defined in terms of a domain of behaviors, as a cause of those behaviors. Both arguments require qualification and behavior domain theory seems to rely on implicit causal relationships in two respects. Three strategies permit reconciliation of the two theories: One can take a causal structure as providing the basis for a homogeneous domain. One can construct a homogeneous domain and then investigate whether a causal structure explains the homogeneity. Or, one can take the domain score as linked to an existing attribute constrained by indirect measurement.

Markus et al.: The cat came back

Keith A. Markus and Denny Borsboom. “The cat came back: Evaluating arguments against psychological measurement”. In: *Theory & Psychology* 22.4 (Aug. 2012), pp. 452–466. doi: [10.1177/0959354310381155](https://doi.org/10.1177/0959354310381155).

Abstract: The possibility or impossibility of quantitative measurement in psychology has important ramifications for the nature of psychology as a discipline. Trendler’s (2009) argument for the impossibility of psychological measurement suggests a general and potentially fruitful strategy for further research on this question. However, the specific argument offered by Trendler appears flawed in several respects. It seems to conflate what must hold true with what one must know and also equivocate on the necessary evidence. Moreover, if the argument supported its conclusion, it would rule out qualitative discourse on psychology as well as psychological measurement. Taking Trendler’s argument as an example, one can formulate a general structure to arguments adopting the same basic strategy. An overview of the requirements that such arguments should meet provides a metatheoretical perspective that can assist authors in constructing such arguments and readers in critically evaluating them.

A. Martin et al.: Counting Things and People

Aryn Martin and Michael Lynch. “Counting Things and People: The Practices and Politics of Counting”. In: *Social Problems* 56.2 (May 2009), pp. 243–266. url: <http://www.jstor.org/stable/10.1525/sp.2009.56.2.243> (visited on 10/16/2012).

Abstract: Many scientific and nonscientific activities involve practices of counting. Counting is, perhaps, the most elementary of numerical practices: an ability to count is presupposed in arithmetic and other branches of mathematics, and counting also is part of innumerable everyday and specialized activ-

ities. Though it is a simple practice when considered abstractly, in specific cases counting can be quite complicated, contentious, and socially consequential. Categorical judgments determine what counts as an eligible case, instance, or datum, and these judgments can be difficult and controversial. By focusing on such difficulties, this article aims to elucidate practices that are crucial for the production and stabilization of natural and social orders. Cases discussed in the article are provisionally divided between counting (nonhuman) things and counting people. Cases of counting things include scientific practices of counting the number of human chromosomes and forensic procedures for counting matches in DNA profiles. Cases of counting people include estimates of crowd size and counts and recounts of election ballots. Counting people not only is a matter of including an object or person in a class or group, but also involves reciprocal performances in which the counted objects are complicit in, or resistive to, the social production of counts. Variable, and otherwise troubled and contested, instances of counting are used to elucidate the numeropolitics of counting: how assigning numbers to things is embedded in disciplined fields, systems of registration and surveillance, technological checks and verifications, and fragile networks of trust.

J. Martin: Positivism, Quantification and the Phenomena of Psychology

Jack Martin. "Positivism, Quantification and the Phenomena of Psychology". In: *Theory & Psychology* 13.1 (Feb. 2003), pp. 33–38. doi: [10.1177/0959354303013001760](https://doi.org/10.1177/0959354303013001760).

Abstract: While in general agreement with Michell's (2003) observations, arguments and positions, I believe two considerations might help to contextualize his piece further. First, it is important to note just how widespread have been psychologists' misunderstandings of positions and arguments in the philosophy of science, and what this says about the disciplinary isolation of psychology. Secondly, despite some common misunderstandings amongst qualitative researchers in psychology, there are good reasons for psychologists to resist both the quantitative imperative and the positivists' overly narrow construal of philosophy of science. These reasons relate to important, non-quantifiable characteristics of many psychological phenomena. Nonetheless, Michell's article is a timely reminder to guard against the excesses and limitations that attend any version of 'methodolatry', quantitative or qualitative.

Martin-Löf: Truth of a proposition, evidence of a judgement, validity of a proof

Per Martin-Löf. "Truth of a proposition, evidence of a judgement, validity of a proof". In: *Synthese* 73.3 (Dec. 1987), pp. 407–420. doi: [10.1007/BF00484985](https://doi.org/10.1007/BF00484985).

Matzkin: Nonparametric Survey Response Errors

Rosa L Matzkin. "Nonparametric Survey Response Errors". In: *International Economic Review* 48.4 (Nov. 2007), pp. 1411–1427. doi: [10.1111/j.1468-2354.2007.00468.x](https://doi.org/10.1111/j.1468-2354.2007.00468.x).

Abstract: I present nonparametric methods to identify and estimate the biases associated with response errors. When applied to survey data, these methods can be used to analyze how observable and unobservable characteristics of the respondent, and characteristics of the design of the survey, affect errors in the responses. This provides a method to correct the biases that those errors generate, by using the

estimated response errors to “undo” those biases. The results are useful also to design better surveys, since they point at characteristics of the design and of subpopulations of respondents that can provide identification of response errors. Several models are considered.

D. W. Maynard et al.: The Diversity of Ethnomethodology

Douglas W. Maynard and Steven E. Clayman. “The Diversity of Ethnomethodology”. In: *Annual Review of Sociology* 17.1 (1991), pp. 385–418. doi: [10.1146/annurev.so.17.080191.002125](https://doi.org/10.1146/annurev.so.17.080191.002125). url: <http://www.annualreviews.org/doi/abs/10.1146/annurev.so.17.080191.002125> (visited on 02/18/2013) (cit. on p. 19).

Abstract: Our purpose is to review the enormous range of ethnomethodological research from the past three decades. Periodically, scholars have produced review articles, monographs, and position papers that usually promote or critique the work of a particular ethnomethodological subfield. Also, textbook and other accounts of ethnomethodology sometimes impose a homogeneity on the field that neglects the various theoretical and methodological strands. We attempt to articulate the diversity each of the subfields represents, to clarify distinctions between them, and to demonstrate assumptions they share. The areas we discuss include theory, phenomenology, cognition, conversation analysis, research in institutional settings, studies of science, and applied research. While debates about proper topics and methods of research will no doubt continue, underneath such debates are a shared orientation to an extant, achieved orderliness in everyday activities and a commitment to discovering organizational features of direct interaction.

File: <FullTextPDF:/Users/gar/work/bibliography/zotero/storage/M5MS6IFT/MaynardandClayman-1991-TheDiversityofEthnomethodology.pdf:application/pdf>.

D. W. Maynard et al.: Standardization-in-Interaction: The Survey Interview

Douglas W. Maynard and Nora Cate Schaeffer. “Standardization-in-Interaction: The Survey Interview”. In: *Talk and Interaction in Social Research Methods*. SAGE, 2006.

D. W. Maynard et al.: Toward a Sociology of Social Scientific Knowledge

Douglas W. Maynard and Nora Cate Schaeffer. “Toward a Sociology of Social Scientific Knowledge: Survey Research and Ethnomethodology’s Asymmetric Alternates”. In: *Social Studies of Science* 30.3 (June 2000). ArticleType: research-article / Full publication date: Jun., 2000 / Copyright © 2000 Sage Publications, Ltd., pp. 323–370. issn: 0306-3127. doi: [10.2307/285806](https://doi.org/10.2307/285806). url: <http://www.jstor.org/stable/285806> (visited on 01/30/2013) (cit. on p. 19).

Abstract: When abstract, quantitative and generalizing sociologies are juxtaposed to qualitative sociologies, the relationship is often seen as complementary or competitive. Our purpose is to articulate a different type of relationship between abstract social scientific knowledge (as exemplified in Survey Research [SR]) and the form of concrete and particularized knowledge represented in ethnomethodological conversation analysis. SR, historically, represents what we (following Jean Converse) refer to

as the 'ascendancy of the objectivized subjective realm'. Like other kinds of (in Ted Porter's phrase) 'mechanical objectivity', this ascendancy is everywhere made possible because it is accompanied by practitioners' (researchers' and interviewers') tacit, practical forms of knowledge that enable them to work through the situated problems endemic to SR. As endeavours that locate orderliness and social organization in the details of actual social activity, ethnomethodology and conversation analysis find that SR Centres have intrinsic interest as sites of locally-produced structures. Investigating the situated tacit practices of investigators actually conducting SR and survey interviews, ethnomethodological and conversation analytical approaches to SR are also akin to the Sociology of Scientific Knowledge (SSK), which has largely investigated practices in natural science laboratories. This may suggest that there is 'symmetry' between natural and social science, but we also argue that 'asymmetry' is a serviceable notion for science studies. Indeed, understanding the asymmetry between survey-based and ethnomethodological social sciences offers potential for communication (rather than a 'state of non-intercourse') between sociologists and the scientists they study. As an illustration of the Sociology of Social Scientific Knowledge (SSSK), we examine a successful attempt at 'refusal conversion' in an SR Centre.

D. Maynard et al.: Standardization and Tacit Knowledge

Douglas Maynard et al., eds. *Standardization and Tacit Knowledge : Interaction and Practice in the Survey Interview*. New York: Wiley, 2002.

McDonald: Measuring Latent Quantities

Roderick P. McDonald. "Measuring Latent Quantities". In: *Psychometrika* 76.4 (Oct. 2011), pp. 511–536. doi: [10.1007/s11336-011-9223-7](https://doi.org/10.1007/s11336-011-9223-7).

Abstract: A distinction is proposed between measures and predictors of latent variables. The discussion addresses the consequences of the distinction for the true-score model, the linear factor model, Structural Equation Models, longitudinal and multilevel models, and item-response models. A distribution-free treatment of calibration and error-of-measurement is given, and the contrasting properties of measures and predictors are examined.

Menand: An Introduction to Pragmatism

Louis Menand. "An Introduction to Pragmatism". In: *Pragmatism: A Reader*. Ed. by Louis Menand. New York: Vintage Books, 1997.

Abstract: Pragmatism has been called America's only major contribution to philosophy. But since its birth was announced a century ago in 1898 by William James, pragmatism has played a vital role in almost every area of American intellectual and cultural life, inspiring judges, educators, politicians, poets, and social prophets. Now the major texts of American pragmatism, from William James and John Dewey to Richard Rorty and Cornel West, have been brought together and reprinted unabridged. From the first generation of pragmatists, including the Supreme Court Justice Oliver Wendell Holmes and the founder of semiotics, Charles Sanders Peirce, to the leading figures in the contemporary pragma-

tist revival, including the philosopher Hilary Putnam, the jurist Richard Posner, and the literary critic Richard Poirier, all the contributors to this volume are remarkable for the wit and vigor of their prose and the mind-clearing force of their ideas.

Menand: Pragmatism: a Reader

Louis Menand, ed. *Pragmatism: a Reader*. New York: Vintage Books, 1997 (cit. on p. 31).

Abstract: Pragmatism has been called America's only major contribution to philosophy. But since its birth was announced a century ago in 1898 by William James, pragmatism has played a vital role in almost every area of American intellectual and cultural life, inspiring judges, educators, politicians, poets, and social prophets. Now the major texts of American pragmatism, from William James and John Dewey to Richard Rorty and Cornel West, have been brought together and reprinted unabridged. From the first generation of pragmatists, including the Supreme Court Justice Oliver Wendell Holmes and the founder of semiotics, Charles Sanders Peirce, to the leading figures in the contemporary pragmatist revival, including the philosopher Hilary Putnam, the jurist Richard Posner, and the literary critic Richard Poirier, all the contributors to this volume are remarkable for the wit and vigor of their prose and the mind-clearing force of their ideas.

Menzies et al.: Causation as a Secondary Quality

Peter Menzies and Huw Price. "Causation as a Secondary Quality". In: *The British Journal for the Philosophy of Science* 44.2 (June 1993). ArticleType: research-article / Full publication date: Jun., 1993 / Copyright © 1993 The British Society for the Philosophy of Science, pp. 187–203. issn: 0007-0882. url: <http://www.jstor.org/stable/687643> (visited on 12/08/2013) (cit. on p. 26).

File: <JSTORFullTextPDF:/Users/gar/work/bibliography/zotero/storage/T3WZCVMG/MenziesandPrice-1993-CausationasaSecondaryQuality.pdf:application/pdf>.

Messick: Test Validity

Samuel Messick. "Test Validity: A Matter of Consequence". In: *Social Indicators Research* 45.1-3 (Nov. 1998), pp. 35–44. doi: [10.1023/A:1006964925094](https://doi.org/10.1023/A:1006964925094).

Abstract: In this note I comment briefly on Keith Markus's illuminating article on "Science, measurement, and validity: Is completion of Samuel Messick's synthesis possible?" Markus's analysis bears directly on the controversial status of the consequential basis of test validity in relation to the more traditional evidential basis. After addressing some key points in his argument, I then comment more generally on sources of the controversy over the claim that empirical consequences of test interpretation and use constitute validity evidence.

Messick: Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning

Samuel Messick. "Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning". In: *American Psychologist* 50.9

(1995), pp. 741–749. issn: 1935-990X(Electronic);0003-066X(Print). doi: [10.1037/0003-066X.50.9.741](https://doi.org/10.1037/0003-066X.50.9.741).

Abstract: The traditional conception of validity divides it into three separate and substitutable types: content, criterion, and construct validities. This view is fragmented and incomplete, especially because it fails to take into account both evidence of the value implications of score meaning as a basis for action and the social consequences of score use. The new unified concept of validity interrelates these issues as fundamental aspects of a more comprehensive theory of construct validity that addresses both score meaning and social values in test interpretation and test use. That is, unified validity integrates considerations of content, criteria, and consequences into a construct framework for the empirical testing of rational hypotheses about score meaning and theoretically relevant relationships, including those of an applied and a scientific nature. Six distinguishable aspects of construct validity are highlighted as a means of addressing central issues implicit in the notion of validity as a unified concept. These are content, substantive, structural, generalizability, external, and consequential aspects of construct validity. In effect, these six aspects function as general validity criteria or standards for all educational and psychological measurement, including performance assessments, which are discussed in some detail because of their increasing emphasis in educational and employment settings. (PsycINFO Database Record (c) 2010 APA, all rights reserved).

Michell: On defining and interpreting constructs: Ontological and epistemological constraints

Joel Michell. “Constructs, inferences, and mental measurement”. In: *New Ideas in Psychology* 31.1 (Apr. 2013), pp. 13–21. doi: [10.1016/j.newideapsych.2011.02.004](https://doi.org/10.1016/j.newideapsych.2011.02.004).

Abstract: The ‘construct’ concept occupies a significant place in psychology and, yet its role is misunderstood. Psychologists think that theorising in the area of psychological testing involves conjuring constructs, which are operationally defined and measured via psychometric tests. However, the ‘construct’ concept is unworkable and laden with confused philosophical baggage accrued under the hegemony of logical empiricism, and its real function in psychology is obscured. Via an analysis of its history and logic, I expose its flawed conception of the relation between theoretical and observable concepts and the way in which it serves the myth of mental measurement. Finally, it is shown how the actual logic of theorising in science, which entails that theories are best inferred from relevant phenomena, not imaginatively constructed, oppugns this myth and promises to coordinate theoretical concepts with the phenomena to be explained.

Michell: Item Response Models, Pathological Science and the Shape of Error Reply to Borsboom and Mellenbergh

Joel Michell. “Item Response Models, Pathological Science and the Shape of Error Reply to Borsboom and Mellenbergh”. In: *Theory & Psychology* 14.1 (Feb. 2004), pp. 121–129. doi: [10.1177/0959354304040201](https://doi.org/10.1177/0959354304040201).

Abstract: There is nothing in Borsboom and Mellenbergh’s (2004) response that refutes my thesis that psychometrics is a pathology of science. They seek to defend item response models from my charge

of pathological science without apparently realizing that my charge relates to psychometricians, not to models. They appeal to the Quine-Duhem thesis in an attempt to argue that item response models do not allow the hypothesis that psychological attributes are quantitative to be tested in isolation, but their argument is based upon a misinterpretation of Duhem. In any experiment, what is being tested depends on what the experimenter already takes to be true, and it is possible that a psychometrician could be testing just one of the hypotheses constituting an item response model. Furthermore, using the theory of conjoint measurement, it is possible to isolate predictions that depend upon psychological attributes being quantitative, as opposed to merely ordinal. Despite this, Borsboom and Mellenbergh agree with the first part of my thesis. They do not discuss the second part, but an examination of textbooks on item response models shows that psychometricians disguise their failure to test the hypothesis that psychological attributes are quantitative by simply declining to mention that this hypothesis is presumed in their models. Claims to measure psychological attributes based upon these models depend exclusively upon the weakest part of these models: the hypothesis that the distribution of ‘errors’ takes a specific form.

Michell: Normal Science, Pathological Science and Psychometrics

Joel Michell. “Normal Science, Pathological Science and Psychometrics”. In: *Theory & Psychology* 10.5 (Oct. 2000), pp. 639–667. doi: [10.1177/0959354300105004](https://doi.org/10.1177/0959354300105004).

Abstract: A pathology of science is defined as a two-level breakdown in processes of critical inquiry: first, a hypothesis is accepted without serious attempts being made to test it; and, second, this first-level failure is ignored. Implications of this concept of pathology of science for the Kuhnian concept of normal science are explored. It is then shown that the hypothesis upon which psychometrics stands, the hypothesis that some psychological attributes are quantitative, has never been critically tested. Furthermore, it is shown that psychometrics has avoided investigating this hypothesis through endorsing an anomalous definition of measurement. In this way, the failure to test this key hypothesis is not only ignored but disguised. It is concluded that psychometrics is a pathology of science, and an explanation of this fact is found in the influence of Pythagoreanism upon the development of quantitative psychology.

Michell: Quantitative science and the definition of measurement in psychology

Joel Michell. “Quantitative science and the definition of measurement in psychology”. In: *British Journal of Psychology* 88.3 (1997), pp. 355–383. doi: [10.1111/j.2044-8295.1997.tb02641.x](https://doi.org/10.1111/j.2044-8295.1997.tb02641.x).

Abstract: It is argued that establishing quantitative science involves two research tasks: the scientific one of showing that the relevant attribute is quantitative; and the instrumental one of constructing procedures for numerically estimating magnitudes. In proposing quantitative theories and claiming to measure the attributes involved, psychologists are logically committed to both tasks. However, they have adopted their own, special, definition of measurement, one that deflects attention away from the scientific task. It is argued that this is not accidental. From Fechner onwards, the dominant tradition in quantitative psychology ignored this task. Stevens’ definition rationalized this neglect. The widespread acceptance of this definition within psychology made this neglect systemic, with the consequence that

the implications of contemporary research in measurement theory for undertaking the scientific task are not appreciated. It is argued further that when the ideological support structures of a science sustain serious blind spots like this, then that science is in the grip of some kind of thought disorder...unluckily our professors of psychology in general are not up to quantitative logic...E. L. Thorndike to J. McK. Cattell, 1904.

Michell: “The constantly recurring argument”

Joel Michell. ““The constantly recurring argument”: Inferring quantity from order”. In: *Theory & Psychology* 22.3 (June 2012), pp. 255–271. doi: [10.1177/0959354311434656](https://doi.org/10.1177/0959354311434656).

Abstract: The inference from order to quantity is fundamental to psychometrics because the sorts of attributes that psychometricians aspire to measure are experienced directly only as ordered and, yet, it is concluded that such attributes are measurable on interval scales (i.e., that they are quantitative). This inference has been a feature of psychometrics since early last century, before which it permeated scientific thought and played a role in the development of psychophysics. Despite this, its cogency has been analysed only rarely. Elsewhere, I have argued that it is not deductively valid, a point that might be considered obvious except that attempts have been made to show otherwise. Its invalidity displayed, it is easily shown that it is not inductively reasonable either. However, it might still be urged that the inference from order to quantity is an inference to the best explanation: that is, that quantitative structure is reasonably abduced from order. I argue that the opposite is true: the most plausible hypothesis is that the sorts of attributes psychometricians aspire to measure are merely ordinal attributes with impure differences of degree, a feature logically incompatible with quantitative structure. If so, psychometrics is built upon a myth.

Michell: The psychometricians’ fallacy

Joel Michell. “The psychometricians’ fallacy: Too clever by half?” In: *British Journal of Mathematical and Statistical Psychology* 62.1 (2009), pp. 41–55. doi: [10.1348/000711007X243582](https://doi.org/10.1348/000711007X243582).

Abstract: The psychometricians’ fallacy concludes that an attribute is quantitative from the premise that it is ordinal. This fallacy occupies a central place in the paradigm of psychometrics. Most of the founders of the discipline committed it and it makes sense of otherwise anomalous developments within the discipline, such as the permissible statistics controversy and the dominant form taken by item response theories. The fallacy is displayed by showing (1) that an attribute’s quantitative structure reduces to a weak order upon differences between degrees that satisfies the double cancellation, solvability, and Archimedean conditions of conjoint measurement theory and (2) the fact that any order on the degrees themselves does not entail sufficient structure on this weak order to guarantee satisfaction of these conditions. Thus, it is possible that an ordered attribute is non-quantitative. Also, each pair of differences between degrees of an ordinal attribute falls into one of two disjoint classes: (1) those where the order relation between the pair follows from an order on the attribute and (2) those where it is independent of that order and possibly diagnostic of quantitative structure and this fact means that the distinction between order and quantity is an empirical one.

Mitchell: The Quantitative Imperative Positivism, Naive Realism and the Place of Qualitative Methods in Psychology

Joel Mitchell. "The Quantitative Imperative Positivism, Naive Realism and the Place of Qualitative Methods in Psychology". In: *Theory & Psychology* 13.1 (Feb. 2003), pp. 5–31. doi: [10.1177/0959354303013001758](https://doi.org/10.1177/0959354303013001758).

Abstract: The quantitative imperative is the view that in science, when you cannot measure, you do not really know what you are talking about, but when you can, you do, and, therefore, qualitative methods have no place in psychology. On the basis of this imperative, qualitative research methods are still excluded from mainstream psychology. Where does this view come from? Many qualitative researchers think it is an expression of positivism. Is this attribution correct? Then again, qualitative researchers often confuse positivism with naive realism. What is the relationship between the quantitative imperative and naive realism? In this paper it is shown that in finding opposition, qualitative researchers did not, as they sometimes allege, come up against the hard, positivistic edge of science. They encountered something at once much more deep-seated than positivism but also something much less hardheaded than they suppose positivism to have been. Indeed, perhaps surprisingly, positivism is no barrier to qualitative methods. As for naive realism, it provides a firm foundation for qualitative methods in psychology. It is argued that in psychology, the quantitative imperative is an egregious, potentially self-perpetuating form of methodological error.

Misak: New Pragmatists

Cheryl Misak, ed. *New Pragmatists*. Oxford University Press, USA, May 2007 (cit. on p. 31).

Mislevy: The Case for Informal Argument

Robert J. Mislevy. "The Case for Informal Argument". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 93–96. doi: [10.1080/15366367.2012.682525](https://doi.org/10.1080/15366367.2012.682525). (Visited on 01/24/2013).

Mislevy: Validity by Design

Robert J. Mislevy. "Validity by Design". In: *Educational Researcher* 36.8 (Nov. 2007), pp. 463–469. doi: [10.3102/0013189X07311660](https://doi.org/10.3102/0013189X07311660).

Abstract: Lissitz and Samuelsen (2007) argue that the unitary conception of validity for educational assessments is too broad to guide applied work. They call for attention to considerations and procedures that focus on "test development and analysis of the test itself" and propose that those activities be collectively termed content validity. The author of this article describes work that makes more explicit the underlying principles of assessment design, thereby providing conceptual foundations for familiar practices and supporting the development of new ones. By structuring design activities around assessment arguments, the test developer accrues evidence in passing for what Embretson (1983) calls "construct representation" argumentation for validity.

Molder et al.: Conversation and Cognition

Hedwig te Molder and Jonathan Potter, eds. *Conversation and Cognition*. English. Cambridge; New York: Cambridge University Press, 2005.

Abstract: Written by leading figures in conversation analysis, discursive psychology and ethnomethodology, this book looks at the challenging implications of new discourse-based approaches to the topic of cognition.

Morgan: Measurement in psychology

Michael Morgan. "Measurement in psychology: Commentary on Michell's Quantitative Science and the definition of measurement in psychology". In: *British Journal of Psychology* 88.3 (1997), pp. 399–400. doi: [10.1111/j.2044-8295.1997.tb02646.x](https://doi.org/10.1111/j.2044-8295.1997.tb02646.x).

Morris: Causes of Behaviour

Michael Morris. "Causes of Behaviour". In: *The Philosophical Quarterly* 36.143 (Apr. 1986), pp. 123–144. doi: [10.2307/2219764](https://doi.org/10.2307/2219764) (cit. on p. 26).

Moss: Reconstructing Validity

Pamela A. Moss. "Reconstructing Validity". In: *Educational Researcher* 36.8 (Nov. 2007), pp. 470–476. doi: [10.3102/0013189X07311608](https://doi.org/10.3102/0013189X07311608).

Abstract: In response to Lissitz and Samuelsen (2007), the author reconstructs the historical arguments for the more comprehensive unitary concept of validity and the principles of scientific inquiry underlying it. Her response is organized in terms of four questions: (a) How did validity in educational measurement come to be conceptualized as unitary, and why? (b) What is construct validity, and how does it provide the basis for a unitary concept of validity? (c) Why has the focus of validity been on the interpretations and uses of test scores rather than on the test itself? and (d) What sort of guidance for test developers and evaluators has been provided within a unitary concept of validity, and how might it be enhanced? The author highlights the role that cases of programmatic validity research can play in representing validity theory and guiding validity inquiry.

Moss: Recovering a Dialectical View of Rationality

Pamela A. Moss. "Recovering a Dialectical View of Rationality". In: *Social Indicators Research* 45.1/3 (Nov. 1998), pp. 55–67. doi: [10.1023/A:1006925226003](https://doi.org/10.1023/A:1006925226003).

Abstract: In this article, I argue for an interpretation of Messick's (1989) theory of validity that supports a dialectical over a technical view of rationality in making validity judgments. A primary theme underlying Messick's theory is the "Singerian" approach to inquiry where one system of inquiry is observed by another in order to open "their underlying scientific and value assumptions to public scrutiny and critique" (pp. 61-62). Against Markus (this issue), who argues that a "completion" of Messick's theoretical project is necessary to support a single, best justified validity judgment for any given test

use, I argue that Messick has provided a means of maintaining validity theory and the judgments it supports as ongoing accomplishments, always open to other perspectives, and critically reflexive in light of those challenges.

Murphy: Validity for What?

Kevin R. Murphy. "Validity for What? The Peril of Overclarifying". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 97–99. doi: [10.1080/15366367.2012.677362](https://doi.org/10.1080/15366367.2012.677362).

Nadelhoffer et al.: The Past and Future of Experimental Philosophy

Thomas Nadelhoffer and Eddy Nahmias. "The Past and Future of Experimental Philosophy". In: *Philosophical Explorations* 10.2 (2007), pp. 123–149. issn: 1386-9795. doi: [10.1080/13869790701305921](https://doi.org/10.1080/13869790701305921).

Abstract: Experimental philosophy is the name for a recent movement whose participants use the methods of experimental psychology to probe the way people think about philosophical issues and then examine how the results of such studies bear on traditional philosophical debates. Given both the breadth of the research being carried out by experimental philosophers and the controversial nature of some of their central methodological assumptions, it is of no surprise that their work has recently come under attack. In this paper we respond to some criticisms of experimental philosophy that have recently been put forward by Antti Kauppinen. Unlike the critics of experimental philosophy, we do not think the fledgling movement either will or should fall before it has even had a chance to rise up to explain what it is, what it seeks to do (and not to do), and exactly how it plans to do it. Filling in some of the salient details is the main goal of the present paper.

Newton: Clarifying the Consensus Definition of Validity

Paul E. Newton. "Clarifying the Consensus Definition of Validity". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 1–29. doi: [10.1080/15366367.2012.669666](https://doi.org/10.1080/15366367.2012.669666).

Abstract: The 1999 Standards for Educational and Psychological Testing defines validity as the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests. Although quite explicit, there are ways in which this definition lacks precision, consistency, and clarity. The history of validity has taught us that ambiguity risks oversimplification, misunderstanding, inadequate validation, and the inevitable potential for inappropriate interpretation and use of results. This article identifies ways in which the spirit of the Standards can be clarified, with the intention of reducing these risks. The article provides an elaboration of the consensus definition, invoking a narrow, technical sense of validity, unique to the professions of educational and psychological measurement and assessment; an assessment-based decision-making procedure is valid if the argument for interpreting assessment outcomes (under stated conditions and in terms of stated conclusions) as measures of the attribute entailed by the decision is sufficiently strong.

Newton: Questioning the Consensus Definition of Validity

Paul E. Newton. "Questioning the Consensus Definition of Validity". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 110–122. doi: [10.1080/15366367.2012.688456](https://doi.org/10.1080/15366367.2012.688456).

Parry et al.: Validity of Responses to Survey Questions

Hugh J. Parry and Helen M. Crossley. "Validity of Responses to Survey Questions". In: *The Public Opinion Quarterly* 14.1 (Apr. 1950), pp. 61–80. doi: [10.1086/266150](https://doi.org/10.1086/266150).

Abstract: This article is designed as one of a series which will discuss certain aspects of validity in surveys. The first article, which appears below, examines two current concepts of validity (as predictive accuracy, and as a matter of interpretation), reviews the literature on the subject, and presents some of the results of a specially-designed survey in Denver which showed that the validity of even simple "factual" responses may often be open to question. Subsequent articles will discuss the effect of the interviewer on the validity of survey results and the variations in validity according to respondent characteristics and other variables.

Pedhazur et al.: Measurement, design, and analysis

Elazar J. Pedhazur and Liora Pedhazur Schmelkin. *Measurement, design, and analysis: an integrated approach*. Psychology Press, 1991. isbn: 9780805810639.

Abstract: In textbooks and courses in statistics, substantive and measurement issues are rarely, if at all, considered. Similarly, textbooks and courses in measurement virtually ignore design and analytic questions, and research design textbooks and courses pay little attention to analytic and measurement issues. This fragmentary approach fosters a lack of appreciation of the interrelations and interdependencies among the various aspects of the research endeavor. Pedhazur and Schmelkin's goal is to help readers become proficient in these aspects of research and their interrelationships, and to use that information in a more integrated manner. The authors offer extensive commentaries on inputs and outputs of computer programs in the context of the topics presented. Both the organization of the book and the style of presentation allow for much flexibility in choice, sequence, and degree of sophistication with which topics are dealt.

Peirce: How to Make Our Ideas Clear

Charles Sanders Peirce. "How to Make Our Ideas Clear". In: *Popular Science Monthly* 12 (1878), pp. 286–302.

Pinker: Science Is Not Your Enemy

Steven Pinker. "Science Is Not Your Enemy". In: *The New Republic* (Aug. 2013). url: <http://www.newrepublic.com/article/114127/science-not-enemy-humanities> (visited on 01/25/2014) (cit. on p. 23).

Pinker: Why Nature & Nurture Won't Go Away

Steven Pinker. "Why Nature & Nurture Won't Go Away". In: *Daedalus* 133.4 (Oct. 2004), pp. 5–17. url: <http://www.jstor.org/stable/20027940> (visited on 01/23/2014) (cit. on p. 23).

Pitt: Mental Representation

David Pitt. "Mental Representation". In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Winter 2012. 2012. url: <http://plato.stanford.edu/archives/win2012/entries/mental-representation/>.

Pollitt: Validity Cannot Be Created, It Can Only Be Lost

Alastair Pollitt. "Validity Cannot Be Created, It Can Only Be Lost". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 100–103. doi: [10.1080/15366367.2012.686868](https://doi.org/10.1080/15366367.2012.686868). (Visited on 01/24/2013).

Poole: Routine Testing Practices and the Linguistic Construction of Knowledge

Deborah Poole. "Routine Testing Practices and the Linguistic Construction of Knowledge". In: *Cognition and Instruction* 12.2 (Jan. 1994), pp. 125–150. doi: [10.1207/s1532690xci1202_3](https://doi.org/10.1207/s1532690xci1202_3).

Abstract: This article examines the linguistic encoding of curricular knowledge in routine classroom testing events. Focusing on transcript data collected in a qualitative study of junior high school social studies classrooms, I argue that the dominant epistemological orientation of testing events is positivistic and values a discrete, bounded form of knowledge. The analysis centers on the language of review activities that typically precede and follow classroom tests; specifically, it focuses on interactional sequences that demand students' verbal participation in a culturally specified orientation to knowledge. A comparison of the language of these testing events and earlier lesson presentations of the same curricular information suggests that testing encourages and exaggerates the extent to which a positivistic view of knowledge prevails.

Potter: Post-Cognitive Psychology

Jonathan Potter. "Post-Cognitive Psychology". en. In: *Theory & Psychology* 10.1 (Feb. 2000), pp. 31–37. doi: [10.1177/0959354300010001596](https://doi.org/10.1177/0959354300010001596).

Abstract: This paper speculates about what will, and should, follow cognitivism in psychology in the new century. It highlights the importance of the work of Wittgenstein, Sacks and Edwards for the development of post-cognitive psychology. Cognitivism is criticized for failing to conceptualize practices in a way that recognizes their action orientation and co-construction, and to appreciate how they are given sense through people's categories, formulations and orientations. Discursive psychology focuses on the production of versions of reality and cognition as parts of practices in natural settings. It is offered as one potential successor to cognitivism.

Potter: Review Essay Studying the Standardized Survey as Interaction

Jonathan Potter. "Review Essay Studying the Standardized Survey as Interaction". en. In: *Qualitative Research* 3.2 (Aug. 2003), pp. 269–278. doi: [10.1177/14687941030032007](https://doi.org/10.1177/14687941030032007) (cit. on p. 8).

Prawitz: Inference and Knowledge

Dag Prawitz. "Inference and Knowledge". In: *Logica Yearbook 2008*. London: College Publications, 2009, pp. 183–200.

Prawitz: The epistemic significance of valid inference

Dag Prawitz. "The epistemic significance of valid inference". In: *Synthese* (Mar. 2011), pp. 1–12. doi: [10.1007/s11229-011-9907-7](https://doi.org/10.1007/s11229-011-9907-7).

Abstract: The traditional picture of logic takes it for granted that "valid arguments have a fundamental epistemic significance", but neither model theory nor traditional proof theory dealing with formal system has been able to give an account of this significance. Since valid arguments as usually understood do not in general have any epistemic significance, the problem is to explain how and why we can nevertheless use them sometimes to acquire knowledge. It is suggested that we should distinguish between arguments and acts of inferences and that we have to reconsider the latter notion to arrive at the desired explanation. More precisely, the notions should be developed so that the following relationship holds: one gets in possession of a ground for a conclusion by inferring it from premisses for which one already has grounds, provided that the inference in question is valid. The paper proposes explications of the concepts of ground and deductively valid inference so that this relationship holds as a conceptual truth. Logical validity of inference is seen as a special case of deductive validity, but does not add anything as far as epistemic significance is concerned—it resides already in the deductively valid inferences.

Prawitz: Truth as an Epistemic Notion

Dag Prawitz. "Truth as an Epistemic Notion". In: *Topoi* (), pp. 1–8. doi: [10.1007/s11245-011-9107-6](https://doi.org/10.1007/s11245-011-9107-6).

Abstract: What is the appropriate notion of truth for sentences whose meanings are understood in epistemic terms such as proof or ground for an assertion? It seems that the truth of such sentences has to be identified with the existence of proofs or grounds, and the main issue is whether this existence is to be understood in a temporal sense as meaning that we have actually found a proof or a ground, or if it could be taken in an abstract, tenseless sense. Would the latter alternative amount to realism with respect to proofs or grounds in a way that would be contrary to the supposedly anti-realistic standpoint underlying the epistemic understanding of linguistic expressions? Before discussing this question, I shall consider reasons for construing linguistic meaning epistemically and relations between such reasons and reasons for taking an anti-realist point of view towards the discourse in question.

Prawitz: Validity of Inference

Dag Prawitz. *Validity of Inference*. Abstract. Feb. 2008.

Presser et al.: Methods for Testing and Evaluating Survey Questionnaires

Stanley Presser et al., eds. *Methods for Testing and Evaluating Survey Questionnaires*. Aug. 2004. url: <http://onlinelibrary.wiley.com/book/10.1002/0471654728>.

Abstract: The definitive resource for survey questionnaire testing and evaluation Over the past two decades, methods for the development, evaluation, and testing of survey questionnaires have undergone radical change. Research has now begun to identify the strengths and weaknesses of various testing and evaluation methods, as well as to estimate the methods' reliability and validity. Expanding and adding to the research presented at the International Conference on Questionnaire Development, Evaluation and Testing Methods, this title presents the most up-to-date knowledge in this burgeoning field. The only book dedicated to the evaluation and testing of survey questionnaires, this practical reference work brings together the expertise of over fifty leading, international researchers from a broad range of fields. The volume is divided into seven sections: Comprehensive and carefully edited, this groundbreaking text offers researchers a solid foundation in the latest developments in testing and evaluating survey questionnaires, as well as a thorough introduction to emerging techniques and technologies.

Price: 'Could a Question be True?

Huw Price. "'Could a Question be True?': Assent and the Basis of Meaning". In: *The Philosophical Quarterly* 33.133 (Oct. 1983), p. 354. doi: [10.2307/2219162](https://doi.org/10.2307/2219162) (cit. on p. 19).

Price: Expressivism for Two Voices

Huw Price. "Expressivism for Two Voices". In: *Pragmatism, Science and Naturalism*. Frankfurt am Main; New York: Peter Lang, 2011, pp. 87–113 (cit. on p. 30).

Abstract: I discuss the relationship between the two forms of expressivism defended by Robert Brandom, on one hand, and philosophers in the Humean tradition, such as Simon Blackburn and Allan Gibbard, on the other. I identify three apparent points of difference between the two programs, but argue that all three are superficial. Both projects benefit from the insights of the other, and the combination is in a natural sense a global expressivism. 1 Locating expressivism Where in contemporary philosophy should one expect to encounter expressivists? It would be easy for a visitor to get the impression that the genus has a narrow range, confined to meta-ethics. For example, the usually authoritative Oxford Dictionary of Philosophy 1 defines "Expressivism" as a "[t]erm used for those theories of ethical discourse that contrast ethical sentences with expressions of belief." (Blackburn, 1994, p. 127, emphasis added) Similarly, Wikipedia also focusses exclusively on the metaethical cases: 2 Expressivism in meta-ethics is a theory about the meaning of moral language. According to expressivism, sentences that employ moral terms – for example, "It is wrong to torture an innocent human being" – are not descriptive or fact-stating; moral terms such as "wrong" "good," or "just" do not refer to real, in-the-world properties. The primary function of moral sentences, according to expressivism, is not to assert any matter of fact, but rather to express an evaluative attitude toward an object of evaluation. (Wikipedia, accessed 22.4.2010) This blinkered conception of expressivism is doubly misleading, in my view, for it manages to turn blind eyes simultaneously in two quite different directions. To one side, it ignores a range of

views in the same tradition as meta-ethical expressivism, but about quite different topics. To the other side – more understandably, perhaps, but in.

Price: Expressivism, pragmatism and representationalism

Huw Price. *Expressivism, pragmatism and representationalism*. Cambridge, UK: Cambridge University Press, 2013 (cit. on pp. 19, 33).

Abstract: Pragmatists have traditionally been enemies of representationalism but friends of naturalism, when naturalism is understood to pertain to human subjects, in the sense of Hume and Nietzsche. In this volume Huw Price presents his distinctive version of this traditional combination, as delivered in his René Descartes Lectures at Tilburg University in 2008. Price contrasts his view with other contemporary forms of philosophical naturalism, comparing it with other pragmatist and neo-pragmatist views such as those of Robert Brandom and Simon Blackburn. Linking their different 'expressivist' programmes, Price argues for a radical global expressivism that combines key elements from both. With Paul Horwich and Michael Williams, Brandom and Blackburn respond to Price in new essays. Price replies in the closing essay, emphasising links between his views and those of Wilfrid Sellars. The volume will be of great interest to advanced students of philosophy of language and metaphysics.

Price: Naturalism without representationalism

Huw Price. "Naturalism without representationalism". In: *Expressivism, Pragmatism, and Representationalism*. Cambridge: Cambridge University Press, 2013, pp. 3–21 (cit. on pp. 19, 33).

Price: Pluralism, 'world', and the primacy of science

Huw Price. "Pluralism, 'world', and the primacy of science". In: *Expressivism, Pragmatism, and Representationalism*. Cambridge: Cambridge University Press, 2013, pp. 22–44 (cit. on pp. 19, 33).

Price: Truth as Convenient Friction

Huw Price. "Truth as Convenient Friction". In: *The Journal of Philosophy* 100.4 (Apr. 2003), pp. 167–190. url: <http://www.jstor.org/stable/3655652> (visited on 01/23/2014) (cit. on p. 30).

Price: Two expressivist programmes, two bifurcations

Huw Price. "Two expressivist programmes, two bifurcations". In: *Expressivism, Pragmatism, and Representationalism*. Cambridge: Cambridge University Press, 2013, pp. 22–44 (cit. on p. 19).

Psathas: Everyday language: studies in ethnomethodology

George Psathas. *Everyday language: studies in ethnomethodology*. Irvington Publishers : distributed by Halsted Press, 1979. isbn: 9780470266700.

Putnam: Pragmatism

Hilary Putnam. "Pragmatism". In: *Proceedings of the Aristotelian Society* 95 (Jan. 1995), pp. 291–306. url: <http://www.jstor.org/stable/4545222> (visited on 01/26/2014) (cit. on pp. 30, 33).

Putnam: Representation and reality

Hilary Putnam. *Representation and reality*. Cambridge, Mass.: MIT Press, 1991. isbn: 0262660741 9780262660747 (cit. on p. 19).

Putnam: The Collapse of the Fact/Value Dichotomy

Hilary Putnam. "The Collapse of the Fact/Value Dichotomy". In: *The Collapse of the Fact/Value Dichotomy and Other Essays*. Cambridge, MA: Harvard University Press, 2002 (cit. on pp. 19, 30).

Putnam: The Collapse of the Fact/Value Dichotomy and Other Essays

Hilary Putnam. *The Collapse of the Fact/Value Dichotomy and Other Essays*. Cambridge, MA: Harvard University Press, 2002. isbn: 0674009053.

Putnam: The Meaning of 'Meaning'

Hilary Putnam. "The Meaning of 'Meaning'". In: *Minnesota Studies in the Philosophy of Science* 7 (1975), pp. 131–193 (cit. on p. 33).

Putnam: The Three Enlightenments

Hilary Putnam. "The Three Enlightenments". In: *After Cognitivism: A Reassessment of Cognitive Science and Philosophy*. Springer, 2009 (cit. on pp. 19, 30).

Quéré et al.: Some Features of Pragmatist Thought Still Remain Insufficiently Explored in Ethnomethodology

Louis Quéré and Cédric Terzi. "Some Features of Pragmatist Thought Still Remain Insufficiently Explored in Ethnomethodology". In: *Qualitative Sociology* 34.1 (Nov. 2010), pp. 271–275. doi: [10.1007/s11133-010-9182-9](https://doi.org/10.1007/s11133-010-9182-9).

W. V. Quine: Two Dogmas of Empiricism

W. V. Quine. "Two Dogmas of Empiricism". In: *The Philosophical Review* 60.1 (Jan. 1951), pp. 20–43. url: <http://www.jstor.org/stable/2181906> (visited on 11/04/2009) (cit. on pp. 30, 34).

W. V. O. Quine: From a Logical Point of View: Nine Logico-Philosophical Essays

Willard Van Orman Quine. *From a Logical Point of View: Nine Logico-Philosophical Essays*. 2d ed., rev. Cambridge, Mass: Harvard University Press, 1980.

W. Quine: Word and object

W.V.O. Quine. *Word and object*. English. Cambridge: The MIT Press, 1960 (cit. on p. 34).

Raatikainen: Causation, Exclusion, and the Special Sciences

Panu Raatikainen. "Causation, Exclusion, and the Special Sciences". In: *Erkenn* 73.3 (Nov. 2010), pp. 349–363. doi: [10.1007/s10670-010-9236-0](https://doi.org/10.1007/s10670-010-9236-0).

Rawls: Garfinkel, Ethnomethodology and the Defining Questions of Pragmatism

Anne Warfield Rawls. "Garfinkel, Ethnomethodology and the Defining Questions of Pragmatism". In: *Qualitative Sociology* 34.1 (Dec. 2010), pp. 277–282. doi: [10.1007/s11133-010-9185-6](https://doi.org/10.1007/s11133-010-9185-6).

Recanati et al.: Literalism and Contextualism: Some Varieties

François Recanati, Gerhard Preyer, and Georg Peter. "Literalism and Contextualism: Some Varieties". In: *Contextualism in Philosophy: Knowledge, Meaning and Truth*. Clarendon Press, 2005, pp. 171–196.

Reckase: The Interaction of Values and Validity Assessment

Mark D. Reckase. "The Interaction of Values and Validity Assessment: Does a Test's Level of Validity Depend on a Researcher's Values?" In: *Social Indicators Research* 45.1-3 (Nov. 1998), pp. 45–54. doi: [10.1023/A:1006973109164](https://doi.org/10.1023/A:1006973109164).

Abstract: This paper presents a somewhat different framework for considering the validity problem than that proposed by Messick (1989). Validity evaluation is considered as a problem of comparing continua in a multidimensional space corresponding to constructs, tests, and applications. This framework is used to consider the position taken by Markus (1998) and to argue that a test's validity is independent of a researcher's values, and that a completion of Messick's synthesis is not needed.

Romney et al.: Culture as Consensus

A. Kimball Romney, Susan C. Weller, and William H. Batchelder. "Culture as Consensus: A Theory of Culture and Informant Accuracy". In: *American Anthropologist*. New Series 88.2 (June 1986), pp. 313–338. doi: [10.1525/aa.1986.88.2.02a00020](https://doi.org/10.1525/aa.1986.88.2.02a00020).

Abstract: This paper presents and tests a formal mathematical model for the analysis of informant responses to systematic interview questions. We assume a situation in which the ethnographer does not know how much each informant knows about the cultural domain under consideration nor the answers to the questions. The model simultaneously provides an estimate of the cultural competence or knowledge of each informant and an estimate of the correct answer to each question asked of the informant. The model currently handles true-false, multiple-choice, and fill-in-the-blank type question formats. In familiar cultural domains the model produces good results from as few as four informants. The paper

includes a table showing the number of informants needed to provide stated levels of confidence given the mean level of knowledge among the informants. Implications are discussed.

Rorty: Method, Social Science, and Social Hope

Richard Rorty. "Method, Social Science, and Social Hope". In: *Canadian Journal of Philosophy* 11.4 (Dec. 1981), pp. 569–588. doi: [10.1080/00455091.1981.10716323](https://doi.org/10.1080/00455091.1981.10716323). url: <http://www.tandfonline.com/doi/abs/10.1080/00455091.1981.10716323> (cit. on pp. 19, 21, 25, 34).

Rorty: Philosophy and the Mirror of Nature

Richard Rorty. *Philosophy and the Mirror of Nature*. Princeton, N.J.: Princeton University Press, 2009 (cit. on pp. 19, 30, 34).

Abstract: When it first appeared in 1979, *Philosophy and the Mirror of Nature* hit the philosophical world like a bombshell. In it, Richard Rorty argued that, beginning in the seventeenth century, philosophers developed an unhealthy obsession with the notion of representation: comparing the mind to a mirror that reflects reality. Rorty's book is a powerful critique of this imagery and the tradition of thought that it spawned.

Thirty years later, the book remains a must-read and stands as a classic of twentieth-century philosophy. Its influence on the academy, both within philosophy and across a wide array of disciplines, continues unabated. This edition includes new essays by philosopher Michael Williams and literary scholar David Bromwich, as well as Rorty's previously unpublished essay "The Philosopher as Expert."

Rorty: Philosophy-Envy

Richard Rorty. "Philosophy-Envy". In: *Daedalus* 133.4 (Oct. 2004), pp. 18–24. url: <http://www.jstor.org/stable/20027941> (visited on 01/23/2014) (cit. on p. 23).

Rorty: Representation, Social Practise, and Truth

Richard Rorty. "Representation, Social Practise, and Truth". In: *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 54.2 (Sept. 1988), pp. 215–228. doi: [10.1007/BF00354514](https://doi.org/10.1007/BF00354514) (cit. on pp. 19, 21, 34).

Rorty: The brain as hardware, culture as software

Richard Rorty. "The brain as hardware, culture as software". In: *Inquiry* 47.3 (2004), pp. 219–235. doi: [10.1080/00201740410006348](https://doi.org/10.1080/00201740410006348) (cit. on p. 31).

Rorty: The Philosopher as Expert

Richard Rorty. "The Philosopher as Expert". In: *Philosophy and the Mirror of Nature*. Thirtieth Anniversary Edition. Princeton University Press, 2009, pp. 395–421.

Rosenbaum et al.: The un-making of a method

Philip J. Rosenbaum and Jaan Valsiner. "The un-making of a method: From rating scales to the study of psychological processes". In: *Theory & Psychology* 21.1 (Feb. 2011), pp. 47–65. doi: [10.1177/0959354309352913](https://doi.org/10.1177/0959354309352913).

Abstract: Rating scales are standard instruments in psychology. They force the research participant to provide a numerical estimate of an assumed "degree" of some characteristic along a linear scale. We prove that such numerical estimates are artifacts based on unknown psychological processes that are used in the making of a rating. Psychology's current use of rating scales entails reliance upon unexplored and abbreviated introspection. It superimposes upon the rater the use of real numbers for the subjective construction of the ratings. The axiomatic superimposition of the notion of "degree" of subjective estimates by the rating task overlooks the qualitative (structural) relation between the implied opposites. We propose the reconstruction of the rating tasks into a method that accesses the process of meaning construction by the rater. When the rater faces a rating task, a field of meanings is constructed in terms of dialogical oppositions. These oppositions can be observed to lead to the moment of subjective synthesis (the rating outcome). Examples are given of the tracing of the process of subjective synthesis from an empirical study using NEO PI items. We claim that reconstruction of the rating task in terms of the study of microgenesis of rating processes allows psychology access to the reality of the workings of the human mind.

Ruck et al.: A Stale Challenge to the Philosophy of Science

Nora Ruck and Thomas Slunecko. "A Stale Challenge to the Philosophy of Science". In: *Integr. psych. behav.* 44.2 (June 2010), pp. 168–175. doi: [10.1007/s12124-010-9121-z](https://doi.org/10.1007/s12124-010-9121-z).

Abstract: In his article "Is psychology based on a methodological error?" and based on a quite convincing empirical basis, Michael Schwarz offers a methodological critique of one of mainstream psychology's key test theoretical axioms, i.e., that of the in principle normal distribution of personality variables. It is characteristic of this paper—and at first seems to be a strength of it—that the author positions his critique within a frame of philosophy of science, particularly positioning himself in the tradition of Karl Popper's critical rationalism. When scrutinizing Schwarz's arguments, however, we find Schwarz's critique profound only as an immanent critique of test theoretical axioms. We raise doubts, however, as to Schwarz's alleged 'challenge' to the philosophy of science because the author not at all seems to be in touch with the state of the art of contemporary philosophy of science. Above all, we question the universalist undercurrent that Schwarz's 'bio-psycho-social model' of human judgment boils down to. In contrast to such position, we close our commentary with a plea for a context- and culture sensitive philosophy of science.

Ryan: Replication in Field Biology

Michael J. Ryan. "Replication in Field Biology: The Case of the Frog-Eating Bat". en. In: *Science* 334.6060 (Dec. 2011). PMID: 22144615, pp. 1229–1230. issn: 0036-8075, 1095-9203. doi: [10.1126/](https://doi.org/10.1126/)

science.1214532. url: <http://www.sciencemag.org/content/334/6060/1229> (visited on 01/16/2014) (cit. on p. 22).

Abstract: Studies conducted in the field offer unique opportunities to observe nature, but achieving true replication under natural conditions is challenging. As demonstrated by the discovery of frog eating by a charismatic bat, biology conducted in the field generally follows an interesting progression that includes discovery, demonstration, experimentation, and verification.

File: [FullTextPDF:/Users/gar/work/bibliography/zotero/storage/PR5XEPSE/Ryan-2011-ReplicationinFieldBiologyTheCaseoftheFrog.pdf:application/pdf;Snapshot:/Users/gar/work/bibliography/zotero/storage/BDA34E8P/1229.html:text/html](#).

Ryle: The concept of mind

Gilbert Ryle. *The concept of mind*. University of Chicago Press ed. Chicago: University of Chicago Press, 1984. isbn: 0226732959.

Saint-Mont: What measurement is all about

Uwe Saint-Mont. "What measurement is all about". In: *Theory & Psychology* 22.4 (Aug. 2012), pp. 467–485. doi: [10.1177/0959354311429997](https://doi.org/10.1177/0959354311429997).

Abstract: The nature of psychological measurement is still the subject of fierce controversy. A rather philosophical debate has been going on in this journal; therefore a closer look at physicists' ideas on measurement may be helpful. In particular, we will try to clarify matters with the help of the crucial concepts of access (validity), precision (reliability), and invariance.

Sanders: Validating 'observations' in discourse studies: A methodological reason for attention to cognition

Robert E. Sanders. "Validating 'observations' in discourse studies: A methodological reason for attention to cognition". English. In: *Conversation and Cognition*. Ed. by Hedwig te Molder and Jonathan Potter. Cambridge; New York: Cambridge Univ. Press, 2005, pp. 57–78.

Abstract: Written by leading figures in conversation analysis, discursive psychology and ethnomethodology, this book looks at the challenging implications of new discourse-based approaches to the topic of cognition.

Schaeffer et al.: From paradigm to prototype and back again: interactive aspects of 'cognitive processing' in standardized survey interviews

Nora Cate Schaeffer and Douglas W. Maynard. "From paradigm to prototype and back again: interactive aspects of 'cognitive processing' in standardized survey interviews". English. In: *Conversation and Cognition*. Ed. by Hedwig te Molder and Jonathan Potter. Cambridge; New York: Cambridge Univ. Press, 2005, pp. 114–133.

Abstract: Written by leading figures in conversation analysis, discursive psychology and ethnomethodology, this book looks at the challenging implications of new discourse-based approaches to the topic of cognition.

Scharp: Bandom on Communication

Kevin Scharp. "Bandom on Communication". In: *Philosophical Profiles in the Theory of Communication*. McGill-Queen's University Press.

Schatzki et al.: The Practice Turn in Contemporary Theory

Theodore R. Schatzki, Karin Knorr Cetina, and Eike von Savigny, eds. *The Practice Turn in Contemporary Theory*. Routledge, Jan. 2001 (cit. on pp. 19, 30).

Scherpenzeel et al.: The Validity and Reliability of Survey Questions A Meta-Analysis of MTMM Studies

Annette C Scherpenzeel and Willem E Saris. "The Validity and Reliability of Survey Questions A Meta-Analysis of MTMM Studies". In: *Sociological Methods & Research* 25.3 (Feb. 1997), pp. 341–383. doi: [10.1177/0049124197025003004](https://doi.org/10.1177/0049124197025003004).

Abstract: Inspired by the research of Frank Andrews on the reliability and validity of survey questions, a large-scale research project was conducted in the Netherlands. The project was comprised of two different stages. For this project, more than 600 survey questions were included in different surveys according to a multitrait-multimethod design. The resulting data were analyzed in two steps. In the first step, estimates of validity and reliability were obtained for each question. The second step was a meta-analysis of the variation in data quality found in the first step. This variation was related to question-specific characteristics, response scale characteristics, context characteristics, and design characteristics. The article describes how the results of this study can be of practical use. In addition, the authors compare them to results of similar studies in the United States, Austria, and other Western, Central, and Eastern European countries.

Schmittmann et al.: On defining and interpreting constructs: Ontological and epistemological constraints

Verena D. Schmittmann et al. "Deconstructing the construct: A network perspective on psychological phenomena". In: *New Ideas in Psychology* 31.1 (Apr. 2013), pp. 43–53. doi: [10.1016/j.newideapsych.2011.02.007](https://doi.org/10.1016/j.newideapsych.2011.02.007).

Abstract: In psychological measurement, two interpretations of measurement systems have been developed: the reflective interpretation, in which the measured attribute is conceptualized as the common cause of the observables, and the formative interpretation, in which the measured attribute is seen as the common effect of the observables. We advocate a third interpretation, in which attributes are conceptualized as systems of causally coupled (observable) variables. In such a view, a construct like 'depression' is not seen as a latent variable that underlies symptoms like 'lack of sleep' or 'fatigue', and neither as a composite constructed out of these symptoms, but as a system of causal relations between

the symptoms themselves (e.g., lack of sleep → fatigue, etc.). We discuss methodological strategies to investigate such systems as well as theoretical consequences that bear on the question in which sense such a construct could be interpreted as real.

Schroeder-Heister: Validity Concepts in Proof-theoretic Semantics

Peter Schroeder-Heister. "Validity Concepts in Proof-theoretic Semantics". In: *Synthese* 148.3 (Feb. 2006), pp. 525–571. doi: [10.1007/s11229-004-6296-1](https://doi.org/10.1007/s11229-004-6296-1).

Schwarz: Is Psychology Based on a Methodological Error?

Michael Schwarz. "Is Psychology Based on a Methodological Error?" In: *Integrative Psychological and Behavioral Science* 43.3 (Sept. 2009), pp. 185–213. doi: [10.1007/s12124-009-9089-8](https://doi.org/10.1007/s12124-009-9089-8).

Abstract: It is believed a proven fact that variables in social and personality psychology match to normal distribution with its single peak. Multiple peaks are explained by independent variables. However, after a comprehensive data analysis of more than 8.000 patients and on the basis of a bio-psycho-social model with 27 scales, we arrived at the conclusion that normal distribution and the psychometric error theory cannot withstand critical analysis in large samples. Beyond the "truth" that is proved by distribution-dependent statistical inferences, there exists another "truth" that is denied by the empirical doctrine. This "truth" is influenced by compensatory belief systems and explains paradoxes in quality of life research. We hypothesize that items, referred to life risks are micro-stressors, triggering self-regulatory processes as a humanly inherent response, deeply anchored in human evolution. Especially when exposed to threatening experiences, self-focused attention generates amplified multimodal distributions and subverts the methodological premises by an ambivalence-bias between thrill and threat, hopes and fears, pleasure and pain, success and failure, etc. In this article we want to focus attention to the incommensurability between test theoretical axioms and the way people usually respond to self-focused items. We discuss basic distribution patterns and approach to an evolutionary theory of fluctuation of validity.

Sellars: Empiricism and the Philosophy of Mind

Wilfrid Sellars. *Empiricism and the Philosophy of Mind*. Cambridge, Mass.: Harvard University Press, 1997 (cit. on pp. [5](#), [19](#), [30](#), [34](#)).

Abstract: The most important work by one of America's greatest twentieth-century philosophers, Empiricism and the Philosophy of Mind is both the epitome of Wilfrid Sellars' entire philosophical system and a key document in the history of philosophy. First published in essay form in 1956, it helped bring about a sea change in analytic philosophy. It broke the link, which had bound Russell and Ayer to Locke and Hume—the doctrine of "knowledge by acquaintance." Sellars' attack on the Myth of the Given in Empiricism and the Philosophy of Mind was a decisive move in turning analytic philosophy away from the foundationalist motives of the logical empiricists and raised doubts about the very idea of "epistemology."

Sellars: Language as Thought and as Communication

Wilfrid Sellars. "Language as Thought and as Communication". In: *Philosophy and Phenomenological Research* 29.4 (June 1969), pp. 506–527. doi: [10.2307/2105537](https://doi.org/10.2307/2105537).

Semin et al.: Embodied Grounding

G. R. Semin and Eliot R. Smith. *Embodied Grounding: Social, Cognitive, Affective, and Neuroscientific Approaches*. Cambridge University Press, Mar. 2008.

Sherry: Thermoscopes, thermometers, and the foundations of measurement

David Sherry. "Thermoscopes, thermometers, and the foundations of measurement". In: *Studies In History and Philosophy of Science Part A* 42.4 (Dec. 2011), pp. 509–524. doi: [10.1016/j.shpsa.2011.07.001](https://doi.org/10.1016/j.shpsa.2011.07.001).

Abstract: Psychologists debate whether mental attributes can be quantified or whether they admit only qualitative comparisons of more and less. Their disagreement is not merely terminological, for it bears upon the permissibility of various statistical techniques. This article contributes to the discussion in two stages. First it explains how temperature, which was originally a qualitative concept, came to occupy its position as an unquestionably quantitative concept (§§1–4). Specifically, it lays out the circumstances in which thermometers, which register quantitative (or cardinal) differences, became distinguishable from thermoscopes, which register merely qualitative (or ordinal) differences. I argue that this distinction became possible thanks to the work of Joseph Black, ca. 1760. Second, the article contends that the model implicit in temperature's quantitative status offers a better way for thinking about the quantitative status of mental attributes than models from measurement theory (§§5–6).

Sijtsma: Correcting Fallacies in Validity, Reliability, and Classification

Klaas Sijtsma. "Correcting Fallacies in Validity, Reliability, and Classification". In: *International Journal of Testing* 9.3 (2009), pp. 167–194. doi: [10.1080/15305050903106883](https://doi.org/10.1080/15305050903106883).

Abstract: This article reviews three topics from test theory that continue to raise discussion and controversy and capture test theorists' and constructors' interest. The first topic concerns the discussion of the methodology of investigating and establishing construct validity; the second topic concerns reliability and its misuse, alternative definitions of reliability, and methods for estimating reliability; and the third topic concerns the relationships between reliability, test length, and the insufficient quality of decision making using short but reliable tests. This article reviews three topics from test theory that continue to raise discussion and controversy and capture test theorists' and constructors' interest. The first topic concerns the discussion of the methodology of investigating and establishing construct validity; the second topic concerns reliability and its misuse, alternative definitions of reliability, and methods for estimating reliability; and the third topic concerns the relationships between reliability, test length, and the insufficient quality of decision making using short but reliable tests.

Sijtsma: Future of Psychometrics

Klaas Sijtsma. "Future of Psychometrics: Ask What Psychometrics Can Do for Psychology". In: *Psychometrika* 77.1 (Jan. 2012), pp. 4–20. doi: [10.1007/s11336-011-9242-4](https://doi.org/10.1007/s11336-011-9242-4).

Abstract: I address two issues that were inspired by my work on the Dutch Committee on Tests and Testing (COTAN). The first issue is the understanding of problems test constructors and researchers using tests have of psychometric knowledge. I argue that this understanding is important for a field, like psychometrics, for which the dissemination of psychometric knowledge among test constructors and researchers in general is highly important. The second issue concerns the identification of psychometric research topics that are relevant for test constructors and test users but in my view do not receive enough attention in psychometrics. I discuss the influence of test length on decision quality in personnel selection and quality of difference scores in therapy assessment, and theory development in test construction and validity research. I also briefly mention the issue of whether particular attributes are continuous or discrete.

Sijtsma: Psychological measurement between physics and statistics

Klaas Sijtsma. "Psychological measurement between physics and statistics". In: *Theory & Psychology* 22.6 (Dec. 2012), pp. 786–809. doi: [10.1177/0959354312454353](https://doi.org/10.1177/0959354312454353).

Abstract: This contribution discusses the physical perspective on psychological measurement represented by additive conjoint measurement and the statistical perspective represented by item response theory, and argues that both fail to adequately address the real measurement problem in psychology: this is the absence of well-developed theories about psychological attributes. I argue that the two perspectives leave psychology out of the equation and by doing so come up with proposals for psychological measurement that are fruitless. Only the rigorous development of attribute theories can lead to meaningful measurement. I provide two examples of the measurement of theoretically well-developed attributes and suggest future directions for psychological measurement.

Sireci: On Validity Theory and Test Validation

Stephen G. Sireci. "On Validity Theory and Test Validation". In: *Educational Researcher* 36.8 (Nov. 2007), pp. 477–481. doi: [10.3102/0013189X07311609](https://doi.org/10.3102/0013189X07311609).

Abstract: Lissitz and Samuelsen (2007) propose a new framework for conceptualizing test validity that separates analysis of test properties from analysis of the construct measured. In response, the author of this article reviews fundamental characteristics of test validity, drawing largely from seminal writings as well as from the accepted standards. He argues that a serious validation endeavor requires integration of construct theory, subjective analysis of test content, and empirical analysis of item and test score data. He argues that the proposals presented by Lissitz and Samuelsen require revision or clarification to be useful to practitioners for justifying the use of a test for a particular purpose. He discusses the strengths and limitations of their proposal, as well as major tenets from other validity perspectives.

Sireci: The Construct of Content Validity

Stephen G. Sireci. "The Construct of Content Validity". In: *Social Indicators Research* 45.1-3 (Nov. 1998), pp. 83–117. doi: [10.1023/A:1006985528729](https://doi.org/10.1023/A:1006985528729).

Abstract: Many behavioral scientists argue that assessments used in social indicators research must be content-valid. However, the concept of content validity has been controversial since its inception. The current unitary conceptualization of validity argues against use of the term content validity, but stresses the importance of content representation in the instrument construction and evaluation processes. However, by arguing against use of this term, the importance of demonstrating content representativeness has been severely undermined. This paper reviews the history of content validity theory to underscore its importance in evaluating construct validity. It is concluded that although measures cannot be "validated" based on content validity evidence alone, demonstration of content validity is a fundamental requirement of all assessment instruments.

Sirken et al.: Cognition and Survey Research

Monroe G. Sirken et al., eds. *Cognition and Survey Research*. Wiley-Interscience, Apr. 1999.

T. W. Smith: Refining the Total Survey Error Perspective

Tom W. Smith. "Refining the Total Survey Error Perspective". In: *International Journal of Public Opinion Research* 23.4 (2011), pp. 464–484. doi: [10.1093/ijpor/edq052](https://doi.org/10.1093/ijpor/edq052).

Abstract: Total survey error (TSE) is a very valuable paradigm for describing and improving surveys, but it can be improved. First, either TSE needs to be limited to covering just instances of differences between true and measured values or TSE should be rechristened as total survey measurement variation (TSMV) if other forms of measurement-related variation are to be included. Second, the TSE/TSMV typology needs to be as detailed and comprehensive as possible. Third, TSE needs to be thought of as heavily involving the interaction of error components and the concept of comparison error should be used to extend TSE to cover multiple survey types. Fourth, the minimizing of TSE is an important goal in survey research and the TSE paradigm can be used as both an applied application and a research agenda to achieve that goal. Finally, TSE has both individual and aggregate components and an absolute and situational aspect. The role of each of these needs to be kept in mind.

Sosa: Intuitions and meaning divergence

Ernest Sosa. "Intuitions and meaning divergence". In: *Philosophical Psychology* 23.4 (2010), pp. 419–426. doi: [10.1080/09515089.2010.505859](https://doi.org/10.1080/09515089.2010.505859).

Abstract: Survey results are in the first instance utterances, which require interpretation. Moreover, when the results seem to involve disagreement in intuitive responses to a thought experiment, the results are most directly responsive to the scenario as envisaged by the particular subject, where the text of the example can give rise to relevantly different scenarios, depending on how the scenario is shaped by the subjects involved, under the guidance of the text. All of this opens up a defense of intuitions against

results that ostensibly imply extensive intuitive disagreement based on cultural or socio-economic background. Critics of the armchair have replied to this defense in recent publications. This paper takes up some of those replies.

Stam: The Fault is Not in Ourselves, but in Our Methods

Henderikus J. Stam. "The Fault is Not in Ourselves, but in Our Methods: Comment on Schwarz". In: *Integrative Psychological and Behavioral Science* 44.4 (Dec. 2010), pp. 281–287. doi: [10.1007/s12124-010-9144-5](https://doi.org/10.1007/s12124-010-9144-5).

Abstract: Schwarz is right to question the methodological foundations of much of contemporary personality research. I argue that he does not go far enough, opting instead to salvage the psychometric tradition for research it cannot possibly accomplish, namely the understanding of persons in an evolutionary and historical context. Furthermore he does not address the question of measurement that has bedeviled the discipline. For all its historical tenacity, the psychometric tradition has been good at classification but weak at understanding, explanation, or description of the phenomena that most interest psychologists.

Stevens: On the Theory of Scales of Measurement

S. S. Stevens. "On the Theory of Scales of Measurement". In: *Science* 103.2684 (June 1946). PMID: 17750512, pp. 677–680. doi: [10.1126/science.103.2684.677](https://doi.org/10.1126/science.103.2684.677).

Steyer: Classical (Psychometric) Test Theory

R. Steyer. "Classical (Psychometric) Test Theory". In: *International Encyclopedia of the Social & Behavioral Sciences*. Ed. by Editors-in-Chief: Neil J. Smelser and Paul B. Baltes. Oxford: Pergamon, 2001, pp. 1955–1962. doi: [10.1016/B0-08-043076-7/00721-X](https://doi.org/10.1016/B0-08-043076-7/00721-X). (Visited on 02/18/2013).

Abstract: Classical Test Theory (CTT) has been developed to quantify measurement error and to solve related problems such as correcting observed dependencies between variables (e.g., correlations) for the attenuation due to measurement errors. Basic concepts of CTT are true score and measurement error variables. These concepts are defined as specific conditional expectations and its residual, respectively. The definitions of these concepts already imply a number of properties that were considered axioms in early presentations of CTT. Models of CTT consist of assumptions about the true score and error variables allowing to identify the theoretical parameters (such as true score variance and error variance) from the variances and covariance's of the observable measurements (test score variables). A number of implications of the assumptions defining models of CTT may be tested empirically via structural equation modeling. Hinting at more recent theories and their goals such as Item Response Theory, Generalizability Theory, and Latent State-Trait Theory concludes this article.

Strauss et al.: Construct Validity

Milton E. Strauss and Gregory T. Smith. "Construct Validity: Advances in Theory and Methodology".

In: *Annual Review of Clinical Psychology* 5.1 (2009). PMID: 19086835, pp. 1–25. doi: [10.1146/annurev.clinpsy.032408.153639](https://doi.org/10.1146/annurev.clinpsy.032408.153639).

Abstract: Measures of psychological constructs are validated by testing whether they relate to measures of other constructs as specified by theory. Each test of relations between measures reflects on the validity of both the measures and the theory driving the test. Construct validation concerns the simultaneous process of measure and theory validation. In this article, we review the recent history of validation efforts in clinical psychological science that has led to this perspective, and we review the following recent advances in validation theory and methodology of importance for clinical researchers. These are: the emergence of nonjustificationist philosophy of science; an increasing appreciation for theory and the need for informative tests of construct validity; valid construct representation in experimental psychopathology; the need to avoid representing multidimensional constructs with a single score; and the emergence of effective new statistical tools for the evaluation of convergent and discriminant validity.

Suchman et al.: Interactional Troubles in Face-to-Face Survey Interviews

Lucy Suchman and Brigitte Jordan. “Interactional Troubles in Face-to-Face Survey Interviews”. In: *Journal of the American Statistical Association* 85.409 (Mar. 1990), pp. 232–241. doi: [10.2307/2289550](https://doi.org/10.2307/2289550).

Suchman et al.: Interactional Troubles in Face-to-Face Survey Interviews

Lucy Suchman and Brigitte Jordan. “Interactional Troubles in Face-to-Face Survey Interviews: Rejoinder”. In: *Journal of the American Statistical Association* 85.409 (Mar. 1990), pp. 252–253. doi: [10.2307/2289556](https://doi.org/10.2307/2289556).

Sudman: Thinking about answers

Seymour Sudman. *Thinking About Answers : The Application of Cognitive Processes to Survey Methodology*. San Francisco: Jossey-Bass Publishers, 1996.

Sundholm: Inference versus Consequence

B. G Sundholm. “Inference versus Consequence”. In: *LOGICA Yearbook 1997, 26 - 35 (1998)*. Prague: Filosofia Publishers, Czech Academy of Science, 1998, pp. 26–35. url: <https://openaccess.leidenuniv.nl/handle/1887/10419> (visited on 01/16/2012).

File: [Snapshot : /Users / gar / work / bibliography / zotero / storage / P3Q5HPEN / 10419 .html : text / html ; Sundholm - InferenceVersusConsequence .pdf : /Users / gar / Documents / prooftheory / Sundholm - InferenceVersusConsequence .pdf : application/pdf.](#)

Talisse et al.: The pragmatism reader: from Peirce through the present

Robert B Talisse and Scott F Aikin. *The pragmatism reader: from Peirce through the present*. English. Princeton, N.J.: Princeton University Press, 2011 (cit. on pp. [10](#), [12](#), [31](#)).

Tate: Foucault, Bakhtin, Ethnomethodology: Accounting for Hybridity in Talk-in-Interaction

Shirley Anne Tate. "Foucault, Bakhtin, Ethnomethodology: Accounting for Hybridity in Talk-in-Interaction". In: *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research* 8.2 (May 2007). issn: 1438-5627. url: <http://www.qualitative-research.net/index.php/fqs/article/view/247/545> (cit. on p. 19).

Taylor: Descombes' Critique of Cognitivism

Charles Taylor. "Descombes' Critique of Cognitivism". In: *Inquiry* 47.3 (2004), pp. 203–218. doi: [10.1080/00201740410006339](https://doi.org/10.1080/00201740410006339) (cit. on p. 31).

Thurstone: A Law of Comparative Judgment

L. L. Thurstone. "A Law of Comparative Judgment". In: *Psychological Review* 34.4 (1927), pp. 273–286. doi: [10.1037/h0070288](https://doi.org/10.1037/h0070288).

Abstract: A new psychological law, called the law of comparative judgment, is presented with some of its special applications in the measurement of psychological values. This law is applicable not only to the comparison of physical stimulus intensities but also to qualitative comparative judgments, such as those of excellence of specimens in an educational scale. It should be possible also to verify it on comparative judgments which involve simultaneous and successive contrast. The law is stated as follows: [Equation omitted] in which S_1 and S_2 are the psychological scale values of the two compared stimuli; x_{12} is the sigma value corresponding to the proportion of judgments $p_1 > p_2$. ς_1 is the discriminial dispersion of stimulus R_1 and ς_2 is the dispersion of stimulus R_2 . r is the correlation between the discriminial deviations of R_1 and R_2 in the same judgment. This law is basic for work on Weber's and Fechner's laws, applies to the judgments of a single observer who compares a series of stimuli by the method of paired comparisons when no "equal" judgments are allowed, and is a rational equation for the method of constant stimuli. The law is then applied to five cases each of which involves different assumptions and different degrees of simplification of the law for practical use. The weighting of the observation equations is discussed because the observation equations obtained with the five cases are not of the same reliability and hence should not be equally weighted.

Tomasello: Origins of human communication

Michael Tomasello. *Origins of human communication*. 1st. MIT Press pbk. ed. Cambridge Mass. ;London: MIT Press, 2010. isbn: 9780262515207.

Toomela: Variables in Psychology

Aaro Toomela. "Variables in Psychology: A Critique of Quantitative Psychology". In: *Integrative Psychological and Behavioral Science* 42.3 (June 2008), pp. 245–265. doi: [10.1007/s12124-008-9059-6](https://doi.org/10.1007/s12124-008-9059-6).

Tourangeau: Experimental Design Considerations for Testing and Evaluating Questionnaires

Roger Tourangeau. "Experimental Design Considerations for Testing and Evaluating Questionnaires". In: *Methods for Testing and Evaluating Survey Questionnaires*. Ed. by Stanley Presser et al. John Wiley & Sons, Inc., Aug. 2004, pp. 209–224. url: <http://onlinelibrary.wiley.com/book/10.1002/0471654728>.

Abstract: The thrust of this chapter is that the only way to put questionnaire design on a fully scientific footing is to adopt proven scientific methods and to apply them as rigorously as possible.

Tourangeau et al.: The Psychology of Survey Response

Roger Tourangeau, Lance J. Rips, and Kenneth A. Rasinski. *The Psychology of Survey Response*. Cambridge University Press, Mar. 2000. isbn: 9780521576291.

Abstract: Drawing on classic and modern research from cognitive psychology, social psychology, and survey methodology, this book examines the psychological roots of survey data, how survey responses are formulated, and how seemingly unimportant features of the survey can affect the answers obtained. Topics include the comprehension of survey questions, the recall of relevant facts and beliefs, estimation and inferential processes people use to answer survey questions, the sources of the apparent instability of public opinion, the difficulties in getting responses into the required format, and distortions introduced into surveys by deliberate misreporting.

Tourangeau et al.: The Psychology of Survey Response

Roger Tourangeau, Lance J. Rips, and Kenneth A. Rasinski. *The Psychology of Survey Response*. en. Cambridge University Press, Mar. 2000. isbn: 9780521576291.

Abstract: Drawing on classic and modern research from cognitive psychology, social psychology, and survey methodology, this book examines the psychological roots of survey data, how survey responses are formulated, and how seemingly unimportant features of the survey can affect the answers obtained. Topics include the comprehension of survey questions, the recall of relevant facts and beliefs, estimation and inferential processes people use to answer survey questions, the sources of the apparent instability of public opinion, the difficulties in getting responses into the required format, and distortions introduced into surveys by deliberate misreporting.

Trendler: Measurement Theory, Psychology and the Revolution That Cannot Happen

Günter Trendler. "Measurement Theory, Psychology and the Revolution That Cannot Happen". In: *Theory & Psychology* 19.5 (Oct. 2009), pp. 579–599. doi: [10.1177/0959354309341926](https://doi.org/10.1177/0959354309341926).

Abstract: Doubt is raised that revolutions in measurement theory, for example conjoint measurement or Rasch measurement, will lead to the quantification of psychological attributes. First, the meaning of measurement is explained. Relying on this, it is demonstrated that in order to attain quantification under causally complex circumstances it is necessary to manipulate the phenomena involved and control systematic disturbances. The construction of experimental apparatus is necessary to accomplish these

tasks. The creation of modern quantitative science through the adoption of this method is called the Galilean revolution. Next the Millian quantity objection is formulated. If the Galilean revolution is not possible in psychology, the task of quantification is not solvable. The objection is defended. Psychological phenomena are neither manipulable nor controllable to the required extent. Therefore they are not measurable.

Vaidya: Philosophical methodology

Anand J. Vaidya. "Philosophical methodology: The current debate". In: *Philosophical Psychology* 23.3 (2010), pp. 391–417. issn: 0951-5089. doi: [10.1080/09515089.2010.490940](https://doi.org/10.1080/09515089.2010.490940).

Abstract: In this paper I investigate current issues in the methodology of philosophy. In particular, the epistemology of intuition and the status of empirical work on the use of intuition in philosophy.

Van Orden et al.: Situated Behavior and the Place of Measurement in Psychological Theory

Guy C. Van Orden, Christopher T. Kello, and John G. Holden. "Situated Behavior and the Place of Measurement in Psychological Theory". In: *Ecological Psychology* 22.1 (2010), pp. 24–43. doi: [10.1080/10407410903493145](https://doi.org/10.1080/10407410903493145).

Abstract: Measured values of human behavior may entail contradictory attributes of wave and particle by analogy with the wave/particle attributes of the electron. 1/f scaling is the wave attribute in this analogy and punctate data points are the particle attribute. One consequence of the wave/particle duality in physics was to elevate measurement to a primary place in physical theory, and one purpose of the present analogy is to likewise elevate measurement to a primary place in psychological theory. Another purpose is to emulate Robert Shaw's creative use of analogies, consistent with the brief quotation that begins this article.

Varela et al.: The Embodied Mind

Francisco J. Varela, Evan Thompson, and Eleanor Rosch. *The Embodied Mind: Cognitive Science and Human Experience*. MIT Press, Nov. 1992 (cit. on p. 32).

Abstract: The Embodied Mind provides a unique, sophisticated treatment of the spontaneous and reflective dimension of human experience. The authors - argue that only by having a sense of common ground between mind in Science and mind in experience can our understanding of cognition be more complete. Toward that end, they develop a dialogue between cognitive science and Buddhist meditative psychology and situate it in relation to other traditions such as phenomenology and psychoanalysis. Francisco Varela is Director of Research at the Centre National de Recherche Scientifique and Professor of Cognitive Science and Epistemology, CREA, at the Ecole Polytechnique in Paris. Evan Thompson is Assistant Professor of Philosophy at the University of Toronto. Eleanor Rosch is Professor of Psychology at the University of California, Berkeley.

Vautier et al.: The ambiguous utility of psychometrics for the interpretative foundation of socially relevant avatars

Stéphane Vautier et al. “The ambiguous utility of psychometrics for the interpretative foundation of socially relevant avatars”. In: *Theory & Psychology* 22.6 (Dec. 2012), pp. 810–822. doi: [10.1177/0959354312450093](https://doi.org/10.1177/0959354312450093).

Abstract: The persisting debates that measurement in psychology elicits can be explained by the conflict between two aspiration types. One, the epistemologic aspiration, resting on the search for scientific truth, and two, the social aspiration, resting on the demonstration of a capacity to contribute to psychological assessment problems in particular. Psychometrics answer essentially to psychology’s demand for social utility, leading to the quasi-exclusive attribution of importance to quantitative interpretation. For psychology to be considered an empirical science, it has to establish its capacity for the measurement of psychological phenomena, even if this means that it recognizes that these phenomena are essentially qualitative.

Walter: Situated Cognition: A Field Guide to Some Open Conceptual and Ontological Issues

Sven Walter. “Situated Cognition: A Field Guide to Some Open Conceptual and Ontological Issues”. en. In: *Rev.Phil.Psych.* (Nov. 2013), pp. 1–23. doi: [10.1007/s13164-013-0167-y](https://doi.org/10.1007/s13164-013-0167-y) (cit. on p. 32).

Abstract: This paper provides an overview over the debate about so-called “situated approaches to cognition” that depart from the intracranialism associated with traditional cognitivism insofar as they stress the importance of body, world, and interaction for cognitive processing. It sketches the outlines of an overarching framework that reveals the differences, commonalities, and interdependencies between the various claims and positions of second-generation cognitive science, and identifies a number of apparently unresolved conceptual and ontological issues.

Watzlawik: “Der Weisheits letzter Schluss”?

Meike Watzlawik. ““Der Weisheits letzter Schluss”? Wisdom’s Last Conclusion?” In: *Integr. psych. behav.* 43.3 (Sept. 2009), pp. 214–220. doi: [10.1007/s12124-009-9094-y](https://doi.org/10.1007/s12124-009-9094-y).

Abstract: Unexpected empirical findings lead Schwarz (2009) to question current methodological approaches within psychology. He claims that distribution anomalies, which cannot be explained by independent variables, actually prove an error in classical test theory, which then leads him to criticize current scientific conventionalism. In this commentary, it is shown that the current university system not only uses, but often reproduces conventionalism. It is, of course, necessary to teach certain techniques and tools to future psychologists, but using these critically seem to be essential in preventing scientific approaches turn into ideologies that are or must not be questioned—even if this is sometimes less threatening to one’s identity as a scientist/psychologist. This is true for all sciences, but understanding the bio-psycho-social interdependencies of human nature (ambiguities), as Schwarz describes it, seems to be a particular challenge that is in many ways different from other disciplines. Instead of striving to be like them, it is suggested we establish an ambiguity-accepting and critical environment in

psychology in which theories and approaches are not considered final but temporary to foster change and progress.

Weiss et al.: Reading Brandom

Bernhard Weiss and Jeremy Wanderer. *Reading Brandom: on making it explicit*. Taylor & Francis, June 2009. isbn: 9780415380362 (cit. on p. 20).

Abstract: Robert Brandom's *Making It Explicit: Reasoning, Representing and Discursive Commitment* is one of the most significant, talked about and daunting books published in philosophy in recent years. Featuring specially-commissioned chapters by leading international philosophers with replies by Brandom himself, *Reading Brandom* clarifies, critically appraises and furthers understanding of Brandom's important book. Divided into four parts - 'Normative Pragmatics'; 'The Challenge of Inferentialism'; 'Inferentialist Semantics'; and 'Brandom's Replies', *Reading Brandom* covers the following key aspects of Brandom's work: inferentialism vs. representationalism normativity in philosophy of language and mind pragmatics and the centrality of asserting language entries and exits meaning and truth semantic deflationism and logical locutions. Essential reading for students and scholars of philosophy of language and mind, *Reading Brandom* is also an excellent companion volume to *Reading McDowell: On Mind and World*, also published by Routledge.

Westerman: Conversation analysis and interpretive quantitative research on psychotherapy process and problematic interpersonal behavior

Michael A. Westerman. "Conversation analysis and interpretive quantitative research on psychotherapy process and problematic interpersonal behavior". In: *Theory & Psychology* 21.2 (Apr. 2011), pp. 155–178. doi: [10.1177/0959354310394719](https://doi.org/10.1177/0959354310394719).

Abstract: In this article, I examine conversation analysis, a fruitful area of qualitative research, in order to extend my prior explorations of the idea that quantitative methods can and should be part of the repertoire of interpretive approaches employed by investigators committed to treating psychological phenomena as irreducibly meaningful. My examination includes considering several lines of research by investigators who are not practitioners of conversation analysis in which quantitative methods were employed to study patient behavior in psychotherapy and defensive behavior more generally. These lines of inquiry show that (a) quantitative research methods have a good deal to offer practitioners of conversation analysis as they endeavor to advance our understanding of the organization of interactions, and (b) we can employ quantitative methods and continue to embrace a commitment to interpretive inquiry. I also offer a critique of fundamental methodological precepts associated with conversation analysis, which differ notably from the precepts guiding most qualitative research efforts in psychology. In a fascinating twist, these precepts, which include discomfort with interpretive research procedures, have resulted in limitations in very recent attempts by some practitioners of conversation analysis to employ quantitative methods in their investigations.

Westerman et al.: Changing the terms of the debate

Michael A. Westerman and Stephen C. Yanchar. "Changing the terms of the debate: Quantitative methods in explicitly interpretive research". In: *Theory & Psychology* 21.2 (Apr. 2011), pp. 139–154. doi: [10.1177/0959354310393565](https://doi.org/10.1177/0959354310393565).

Abstract: We introduce this special issue by arguing that quantitative and qualitative research methods do not line up neatly with the guiding philosophical commitments of the two sides of the schism in the field between the mainstream, natural science approach, and the minority, human science position. This leads to the motivating idea for the issue, the view that quantitative methods, when used appropriately, can contribute to interpretive inquiry in psychology. We discuss the issue's two main objectives—(1) presenting lines of actual research that illustrate how quantitative approaches can be used in ways that are consistent with a human science approach to the field, and (2) providing critical examination of the motivating idea—and introduce the articles in the issue that address each of these objectives. In the final section of this introductory article, we offer our thoughts about what the full set of papers accomplishes and suggest that the issue's many-sided exploration goes some distance toward changing the terms of the quantitative—qualitative debate.

Whitely: Construct validity

Susan E. Whitely. "Construct validity: Construct representation versus nomothetic span". In: *Psychological Bulletin* 93.1 (1983), pp. 179–197. doi: [10.1037/0033-2909.93.1.179](https://doi.org/10.1037/0033-2909.93.1.179).

Abstract: Presents a new approach to construct validation research: construct modeling. A paradigm shift from functionalism to structuralism in psychology permits 2 types of research to be separated. Construct representation is concerned with identifying the theoretical mechanisms that underlie responses, such as information processes, strategies, and knowledge stores. Three approaches to assessing construct representation are presented: (1) mathematical modeling, particularly as used in cognitive psychology; (2) psychometric modeling, as exemplified by latent trait modeling; and (3) multicomponent latent trait modeling. Nomothetic span is concerned with the network of relationships of a test score with other variables. These 2 types of construct validation research address different issues and require different types of data. For each type of construct validation research, appropriate methods and quantitative models are presented to test a priori hypotheses about construct validity. Examples are presented, and the construct modeling approach is compared with both the traditional psychometric approach and the information-processing approach to establishing theoretical mechanisms in performance. (41 ref) (PsycINFO Database Record (c) 2010 APA, all rights reserved).

Wieseltier: Crimes Against Humanities

Leon Wieseltier. "Crimes Against Humanities". In: *The New Republic* (Sept. 2013). url: <http://www.newrepublic.com/article/114548/leon-wieseltier-responds-steven-pinkers-scientism> (visited on 01/25/2014) (cit. on p. 23).

Williamson: The Broadness of the Mental

Timothy Williamson. "The Broadness of the Mental: Some Logical Considerations". In: *Noûs* 32 (Jan. 1998), pp. 389–410. url: <http://www.jstor.org/stable/2676155> (visited on 12/08/2013) (cit. on p. 26).

Wilson: Six views of embodied cognition

Margaret Wilson. "Six views of embodied cognition". en. In: *Psychonomic Bulletin & Review* 9.4 (Dec. 2002), pp. 625–636. doi: [10.3758/BF03196322](https://doi.org/10.3758/BF03196322) (cit. on p. 32).

Abstract: The emerging viewpoint of embodied cognition holds that cognitive processes are deeply rooted in the body's interactions with the world. This position actually houses a number of distinct claims, some of which are more controversial than others. This paper distinguishes and evaluates the following six claims: (1) cognition is situated; (2) cognition is time-pressured; (3) we off-load cognitive work onto the environment; (4) the environment is part of the cognitive system; (5) cognition is for action; (6) offline cognition is body based. Of these, the first three and the fifth appear to be at least partially true, and their usefulness is best evaluated in terms of the range of their applicability. The fourth claim, I argue, is deeply problematic. The sixth claim has received the least attention in the literature on embodied cognition, but it may in fact be the best documented and most powerful of the six claims.

Winch: The Idea of a Social Science and its Relation to Philosophy

Peter Winch. *The Idea of a Social Science and its Relation to Philosophy*. English. 2nd. London; New York: Routledge, 1958 (cit. on p. 5).

Abstract: Winch addresses the possibility and practice of a comprehensive 'science of society', drawing from the works of such thinkers as Ludwig Wittgenstein, J.S. Mill and Max Weber to make his case.

Winship et al.: Ethnomethodology and Consequences

Christopher Winship and Christopher Muller. "Ethnomethodology and Consequences: Comment on Emirbayer and Maynard's "Pragmatism and Ethnomethodology"". In: *Qualitative Sociology* 34.1 (Nov. 2010), pp. 283–286. doi: [10.1007/s11133-010-9179-4](https://doi.org/10.1007/s11133-010-9179-4) (cit. on p. 20).

Wittgenstein: Philosophical Investigations

Ludwig Wittgenstein. *Philosophical Investigations*. Ed. by P.M.S. Hacker and Joachim Schulte. Trans. by G. E. M. Anscombe, P. M. S. Hacker, and Joachim Schulte. Rev. 4th ed. Chichester, West Sussex, U.K. ; Malden, MA: Wiley-Blackwell, 2009 (cit. on pp. 11, 34).

Wolfe: The Missing Pragmatic Revival in American Social Science

Alan Wolfe. "The Missing Pragmatic Revival in American Social Science". In: *The Revival of Pragmatism: New Essays on Social Thought, Law, and Culture*. Duke University Press, 1998 (cit. on p. 32).

Yusoff et al.: Generation of an Interval Metric Scale to Measure Attitude

R. Yusoff and R. Mohd Janor. "Generation of an Interval Metric Scale to Measure Attitude". In: *SAGE Open* 4.1 (Jan. 2014). issn: 2158-2440. doi: [10.1177/2158244013516768](https://doi.org/10.1177/2158244013516768). url: <http://sgo.sagepub.com/content/4/1/2158244013516768.full-text.pdf+html> (visited on 01/16/2014).

File: [GenerationofanIntervalMetricScaletoMeasureAttitude|SAGEOpen:/Users/gar/work/bibliography/zotero/storage/NX5W9TR8/2158244013516768.full-text.html:text/html](http://sageopen.com/users/gar/work/bibliography/zotero/storage/NX5W9TR8/2158244013516768.full-text.html:text/html).

Zand Scholten: The Consensus Definition Redefined From a Representational Perspective

Annemarie Zand Scholten. "The Consensus Definition Redefined From a Representational Perspective". In: *Measurement: Interdisciplinary Research & Perspective* 10.1-2 (2012), pp. 104–109. doi: [10.1080/15366367.2012.681978](https://doi.org/10.1080/15366367.2012.681978).

D. H. Zimmerman: Review: Ethnomethodology and the Human Sciences

Don H. Zimmerman. "Review: Ethnomethodology and the Human Sciences". In: *Journal of Linguistic Anthropology* 4.1 (1994), pp. 94–95. doi: [10.1525/jlin.1994.4.1.94](https://doi.org/10.1525/jlin.1994.4.1.94) (cit. on p. 20).

Abstract: Ethnomethodology and the Human Sciences. Graham Button. ed. Cambridge: Cambridge University Press, 1991. 278 pp.

D. W. Zimmerman: Commentary on 'Science, Measurement, and Validity

Donald W. Zimmerman. "Commentary on 'Science, Measurement, and Validity: Is Completion of Samuel Messick's Synthesis Possible?' by Keith A. Markus". In: *Social Indicators Research* 45.1-3 (Nov. 1998), pp. 69–72. doi: [10.1023/A:1006977210073](https://doi.org/10.1023/A:1006977210073).

D. W. Zimmerman: How Should Classical Test Theory Have Defined Validity?

Donald W. Zimmerman. "How Should Classical Test Theory Have Defined Validity?" In: *Social Indicators Research* 45.1-3 (Nov. 1998), pp. 233–251. doi: [10.1023/A:1006949915525](https://doi.org/10.1023/A:1006949915525).

Abstract: Classical test theory defined the predictive validity of a test as the ordinary Pearson correlation between scores on the test and scores on a validation criterion. For some purposes this definition is satisfactory, but for others it leads to complications, because derivation of familiar equations relating validity and reliability requires an independent assumption of uncorrelated errors of measurement. The present paper proposes an alternate definition of validity that avoids difficulties arising from correlated

error scores and is more consistent with standard definitions of true score, error score, and reliability in the classical theory.

Zumbo: Opening Remarks to the Special Issue on Validity Theory and the Methods Used in Validation

Bruno D. Zumbo. "Opening Remarks to the Special Issue on Validity Theory and the Methods Used in Validation: Perspectives from the Social and Behavioral Sciences". In: *Social Indicators Research* 45.1/3 (Nov. 1998), pp. 1–3. doi: [10.1023/A:1006956722368](https://doi.org/10.1023/A:1006956722368).

DRAFT