10.13. Elements of. Cognitivism third year philosophy
Higher institute of pedagogy VII- Olympic Avenue 25 2020 Antwerp
1999/2000

Bookmark.: see p. 2

Preface.
'Elements' (from the ancient Greek 'stoicheia' Lat.: elementa) means
a. aspects (parts, portions) of something,-- in this case cognitivism,
b. which one should put first (as 'archai', Lat.: principia, principles,understanding) in order to understand something.

Well, according to *Ol. Houde, D. Kayser, Ol. Koenig, J. Proust, Fr. Rastier, Vocabulaire de sciences cognitives* (*Neuroscience, psychologie, intelligence artificielle, liguistique et philosophie*), (Vocabulary of cognitive sciences (neuroscience, psychology, artificial intelligence, linguistics and philosophy),), Paris, 1998, the prevailing cognitivism is fivefold. It relies on four subject sciences: neuro- or brain science (genetics certainly included), i.e. the biological aspect, cognitive psychology (the latter is very central) artificial intelligence (the technological-informatic aspect), linguistics (including logi(sti)c language use theory).

It is essentially "philosophy" but in a psychological-materialistic sense. It has rightly been called "philosophical psychology" because what cognitivists call 'mind' (mind, esprit) is essentially psychological to be understood and in a very physical sense.

To expound cognitivism, in other words - given the four basic sciences and the one philosophy, which we conveniently call "philosophy of mind" would be an encyclopedic work.

Now, this course does seek to provide solid information that opposes
a. dilettantism ("knowing something about everything") **b.** but also against (hyper)specialization ("knowing something about everything").

To this end, we will now take samples which, in time, will give a view of the whole of cognitivism (which we call generalization,--i.e., something different (though related to it) than "generalization," which is very often confused with it).

More clearly, one does not generalize from cognitive psychology to the entire cognitive mindset; rather, one generalizes from cognitive psychology to the whole, the totality (perhaps the system), of "cognitivism."

However, we will adapt the subject matter as much as possible to the nature of the Institute of Education and thus preferably highlight "educational" aspects.

E.O. COCN. Bookmark.

Note.-- Follows a second section in which the sub-sciences are discussed in an abbreviated but suggestive manner, i.e., linguistics and cognitive psychology, brain science and artificial intelligent.

Ontology.

One sees "E.O. " on every page standing for "elements of ontology." There is a reason for this.

Metaphysics, the heart of philosophy (at least in a traditional interpretation up to Hegel), is first of all ontology, i.e. theory of reality. Ontology asks again and again, in relation to everything that can be an object of attention, how real it is and how it really is (existence / essence). These two are one.

The course attempts to show and demonstrate how real cognitivism is and how it really is. Or with Hegel's terms: whether it is 'vernünftig' and how it is 'vernünftig' (where 'vernünftig' means "grasping the given and the demanded and finding the solution"). After all, in Hegel's parlance, 'vernünftig' is the same as 'wirklich' and 'wirklich' means "what grasps the given and the demanded and does justice to the demanded in a solution").

In other words: is cognitivism 'wirklich' and how is it? That white the course show.

E.O. COGN. INL. 01.

Western materialism.

Today's cognitive materialism had predecessors. We pause to reflect on them.

In classical antiquity there is mechanistic atomism (Demokritos) and later the stoa (Zenon) and epicureanism (Epikouros).

As an aside, this does not prevent, amid the very religious atmosphere in ancient Hellas, Stoics and Epicureans from believing in deities and in subtle matter (as Alb. Lange notes). Let us dwell a little longer on modern materialisms.

1. *The XVIII - d' century materialism.*

It runs in tandem with a strong wing of modern rationalism.

E. de Condillac, Ch. Bonnet can be mentioned here.

We draw attention to the psychological materialism of D. Hartley and especially Jos. Priestley.-- "Psychology is made by Priestley a part of physiology,--a physics of the brain." (*J. Rehmke / F. Schneider, Geschichte der Philosophie*, (History of Philosophy,), Wiesbaden, 1959, 171). With such a statement we find ourselves in the midst of the sphere of today's cognitivists.

Then follow J. *de Lamettrie* (*L'homme machine* (The machine man), (1748)), *D. von Halbach* (*Système de la nature* (1770)), *Cl. Helvetius* (*De l' esprit* (1758)) and the two encyclopedists D. Diderot and J.d'Alembert.

2. *The XIX - d' century materialism.*

Each time in the atmosphere of modern rationalism.

-- *J.Fischl, Materialismus und Positivismus der Gegenwart*, (Materialism and positivism of the present,), Graz, 1953, ranks it as follows.

a. Mechani(ci)stical materialism.-- K. Vogt, J. Moleschott, L. Büchner, M. Stirner.

b. Dialectical materialism.-- K. Marx; Fr. Engels.

c. Dialectical and historical materialism.-- Vl. Lenin, V. Stalin (the Soviet system).

3. *The Wiener Kreis.*

M. Schlick, H. Reichenbach, Ph. Frank, O.Neurath, especially *Rud. Carnap* (*Der logische Aufbau der Welt* (The logical structure of the world), (1928), in which logistics and physics predominate).

In passing: *O. Neurath*, in: *Erkenntnis* 1932, on psychology and unified science (on a natural-scientific basis) "Here in Vienna, Catholicism has barred the way to Kantism and immediately provoked the rise of logical empiricism,--i.e., of physicalism."

E.O. COGN. INL. 02.

Scientism.

From the Lat. ‘scientia’, science. Scientism is pushing through thick and thin “science” as the only sure source of knowledge.

“The scientistic dogma, moreover, is accompanied by a belief in the unity of the sciences: neurophysiology - and biology in general - is fully reducible to chemistry, and the latter is in turn fully reducible to physics.” (*S. Cuypers, Dusty minds*, in: *Tijdschr. v. philos*. 56 (1994): 4 (Dec.), 699).-- One keeps this constantly in mind throughout the account of cognitivism.

Note.-- Wasn’t that the dream of the Wiener Kreis?

“Rational Consensus”

Cuypers asks the question: why, in constructing a theory of the mind, submit to that scientism? “Can one not consult - with equal right - religion and morality, literature and art or philosophy itself? “. (Ibid.).

Cuypers: only science (*note:* and then the almighty physics) has been able to reach a rational consensus on controversial problems.

Note.-- ‘Consensus’ here means that the prevailing professional scientific community has gradually (especially from the XVII -th century onwards) come to agree on and a method and a set of results.”

This unanimity, Cuypers calls “rational,” i.e., based on what modern enlightened rationalists call “reason. The unanimity insinuates that it works identically in all people - pardon: in all professional scientists.

A.c., 711.-- Cuypers dwells on the results. Measured by its own standards, materialism “so far” has had little success and also a lack of progress.

Materialists claim that the research program is “in full progress.” What Karl Popper calls “a promising materialism” (*K. Popper/ J. Eccles, The Self and its Brain*, London, 1977-1; 1983-2, 96/98).

Note.-- That seems like a very negative assessment. And it is.-- To a movement of such magnitude -- and controlling the mentality of many intellectuals -- , cannot simply be dismissed as purely “promising. That is why we dwell on it at greater length. One always learns,-- even from materialists!

E.O. COGN. INL. 03.

Current materialism.

Today's materialism was designed 1955+ in Australia. From there it spread in the USA. Today - along with the great intellectual influence of the USA - it has spread all over the world.

David Armstrong, A Materialist Theory of the Mind, London, 1968-1, 1993-2 *and The Nature of Mind and Other Essays*, Ithaca (N.Y.), 1980, 1981 - was one of the trailblazers.

According to him, the most pressing problem crying out for solution is from a materialistic standpoint:

a. construct a natural science philosophy with physics as the basic science - already Descartes saw physics as the basic science (in this sense today's cognitive materialism is radically Cartesian) - ;

b. What has been called since modern philosophy "the subject" (the I or mind) - so central to Descartes' philosophy which presupposed thought (understand : consciousness) as the starting point of metaphysics -, "naturalize", i.e. explain it physiologically.

In other words, in the spirit of Priestley or Neurath - cited above - Armstrong wanted to study mental life (= "thinking" as Descartes said) with its beliefs, desires, wills etc. as if it were a mere physical phenomenon.

In this sense, cognitive materialism - like its predecessors but in its own way - is anti-Cartesian. Descartes identified man as "an angel (conscious being) in a machine (body)." The materialists drop the "angel", reduce it to the machine.

Cartesian dualism

spirit/dust - rises above the material (and physically attainable) by having to presuppose something immaterial (and physically unattainable), even if it were some type of rarefied substance.

More than that: it rises above the material because it has to put forward a non-material causality, namely a mental causality. After all, in that view the mind interacts with the body and the surrounding nature.

"How can the immaterial mind simultaneously withdraw from physical energy and yet control the material body? Dualism is so mysterious that it will probably always remain out of the grasp of (note: physics conceived) science. In this sense it is (...) a mere confirmation of the mystery of the spirit". (*S. Cuypers, Dusty minds*, in: *Tijdschr. v. philos.* 56 (1994): 4 (Dec.), 699).

E.O. COGN. INL. 04.

Two opinions.

We explicitly join these two opinions.

1. *Albr. Lange* (1828/1875: neo-Kantian), in his *Geschichte des Materialismus und kritik seiner Bedeutung in der Gegenwart* (History of materialism and critique of its meaning in the present day), 1866-1), sees it twofold.

a. *As a method.--* For Lange, materialism is considered the only method in the natural sciences.

Note.-- This does not prevent Romanticism -- think of the German idealism that was influenced by it (Schelling, also even Hegel) -- from advocating another method that is not entirely irresponsible if only it emphasizes the limits of the materialist method.

b. *As an ideology*.-- For Lange rejects materialism as a metaphysics that claims to know the essence of cosmos and man.

Note.-- Ideology, i.e., a thought construction that exceeds its own bounded method without valid reason is actually rhetoric. Much materialism is rhetoric.

Note **--** Grossly speaking, we agree with Lange.

a. We shall see the method at work in the following pages. Just the problems raised by the materialists are worthwhile (so e.g. in developmental psychology), although, we do not attend to the solutions.-

b. The ideology, the metaphysics, of course is to be rejected.

2. *Joh. Fischl, Materialismus und Positivismus der Gegenwart* (*Ein Beitrag zur Aussprache über die Weltanschauung des modernen Menschen*), (Materialism and Positivism of the Present (A Contribution to the Debate on the Worldview of Modern Man)), Graz/ Wien/ Altötting, 1953, 4, says what follows.

"What kind of philosophy one chooses depends on what kind of man one is, for a philosophical system is not a dead household item that one can put on and take off but something animated by the soul of the man who honors it." (J.G. Fichte (1762/1814).

Every philosophy has its last roots in the irrational depths of the soul life. Philosophy is only the expression in logical concepts of what is lived through in those layers." Thus Fischl.

What goes on in the depths of the souls of so many contemporaries that they think cognitivistically either consciously or especially unconsciously? The techniques made possible by physics that surround our planet - "the net" - are in between but they do not explain everything concerning the intoxication of many that makes them think and live cognitively.

E.O. COGN. INL. 05.

The given and the requested.

Scenario.- I turn around and I see a girl getting off the streetcar. Smiling heartily and talking to a friend.

Psychologically: I see that both of them are getting off the streetcar.-- Suddenly they are looking at me: at that moment it occurs to me that they realize that I am looking at them and at the same time I realize that I am looking at them.

Psychologically: they pay attention to me paying attention to them and immediately I pay attention to them paying attention to me and that I am paying attention to them.

Such is daily experience.-- Are we going to address that very briefly.

1. Before I turn around, I don't see them. Yet I am physically present. But 'intentionally', i.e. with my attention (attentiveness) I am not there. Consequence: I do not see them!

Contrafactual.--If I had not been turned away from her physics, I would have noticed them sooner.

2.1. Suddenly they strike me.-- I become aware that they are there.-- Propositional attitude.-- "I see that they are there". With the direct perception ('sensation') goes an inner sense: "I realize -- 'believe' say the cognitivists (who use the term 'believe' in a very particular sense) -- that they are there (because I see it)." My attitude (orientation, posture toward) has a 'content', namely, "They are there" (a proposition or phrase). That 'content' is more than within my awareness for that content is their being there.

2.2. Suddenly they look at me: they see me looking! That changes psychologically (and existentially, i.e. as experience) the whole situation. For not only does a propositional attitude arise in them ("And look that they do at us!") but at the same time a new propositional attitude arises in me ("They see (realize, pay attention, are aware of) that I see them, yes, look at them" and "Now I fully realize that I am indeed looking at them").

Note.-- When I pay attention to the fact that I am watching, my consciousness becomes 'reflective', not reflexive (loopy) because I am not returning to myself in a second time but I am present with myself in a second degree: I see and I 'see' me seeing! What is actually potentially there was always there. Behold the fact.

The cognitivist 'view' (view) asks the question, "How to describe and explain that physically? ".

E.O. COGN. 02.

Awareness. (02/04)

According to *O.Houde et al., ed., Vocabulaire des sciences cognitives*, Parris, 1998, 169 (Esprit), cognitivists define "mind" as a "mental" thing (state/process/attribute), i.e., something that is conscious and intentional (gifted with conscious contents).

Let us begin with an introduction to what cognitivists 'believe' that 'consciousness(being)' is. And this by means of a very expert introduction: *Pascal Engel, Introduction à la philosophie de l' esprit*, (Introduction to the philosophy of mind,), Paris, 1994, 187/209 (*La conscience n' est-elle qu' un myth*?).(Is consciousness just a myth), -See here.

Engel puts a first - rather traditional - meaning of "consciousness" in brackets, which says that "mind" is often equated with "thinking" and in such a way that all that is mind, essentially and thus naturally necessary, is "being aware" both of oneself and of the rest of reality.

Which is not to say that Engel, like other cognitivists, denies that first meaning. Quite the contrary, in fact.

a.-- *"Conscious.*

Means "mental states" whose contents as far as experienced (perceived or sensed) show themselves (are phenomena).

This refers to all that is experience and provides 'qualia' (singular: quale). For example, feeling a pain is a quale, whether or not one pays attention to its intensity (intense/slight pain).

Note.-- Others interpret qualia as the totality of all conscious phenomena. M.a.: the proposers differ in meaning.

Note.-- In this sense, 'experiences' are strongly distinguished from other (also mental) phenomena such as believing something, having a thought in one's consciousness, reasoning, which are 'intentional' phenomena. For such intentional phenomena -- states/processes/ characteristics-- have an interiority (our interiority) with a content to which our consciousness is directed (intending, hence 'intentional').

Angel.

This does not imply that "I long for a good glass of wine and want to drink it" or "I regret that one cannot swim in the Lys as before" - as mental attitudes (attitudes, relations) have no connection with certain 'qualitative' or 'phenomenal' experiences. In other words: I must, for example, have tasted wine first (experience of a quale) in order to crave it!

E.O. COGN. 03.

b.-- '*Consciousness'*

Means the ability to have mental states/ processes/ properties (of the first order), possibly accompanied by mental phenomena of the second order.

Note.-- Already the mid-century scholastics (800/1450) distinguished between "intentio prima", first attention ("I pay attention to the coming of that pretty girl"), and "intentio secunda", second attention ("I pay attention to the coming of that pretty girl").

Or still, with P. Ricoeur: reflective, self-observing, consciousness possibly accompanies my first attention to all that is.

Cognitive model.

"I believe that p" (where p represents a statement or proposition, such as, e.g., "Anneke is coming"). Mental state: "I firmly believe that I believe that p".

As an aside, 'belief' is a very frequent term in cognitivism and means: "a propositional attitude" (i.e. having a content that can express itself in a proposition (such as "Anneke is coming"), which can be immediately true or false (Fr.: croyance; Eng.: belief).

"We believe that we will desire that q". In other words, cognitivistically, it reads "We imagine our own beliefs, our own desires, -- yes, our own experiences". "Yes, we have a representation of our representations".

Note **--** Engel says it is often claimed that humans are capable of this but animals are not.

c.1.-- *'Consciousness'*.

Means the subjective viewpoint (perspective) we exhibit with respect to, the totality of all our mental states/processes/attractions whether they are qualitative (phenomenal, experience) or intentional.

This implies that that viewpoint is to some extent (many emphasize the 'many' rather than the one) one and to some extent centralizes the totality of all our mental operations with their contents.

c.2.-- *'Consciousness'*.

Very closely related to the preceding. Means the I or subject, with its self-consciousness concerning its own independent existence in this world.

Related to the previous. Indeed: if each of us is an I, then there is a unifying, centralizing point of view that is rooted in our "substantial" mode of being, i.e., in our self-existing mode of being in the world.

E.O. COGN. 04.

Value Judgment.

P. Engel believes that a, b, and c1 represent the decisive meanings. Partly because there is broad agreement that they are "undeniable facts," though there is disagreement about how to explain them.-- O.c., 209.

The traditional definition and the three definitions he favors (a, b, c1) are not fictions for him. Consciousness exists because it is "mind" as thought; it is phenomenal (experience and intentionality); it is reflective consciousness (at least potentially); it involves a subjective standpoint.

But with Dan. Dennett, Engel argues that these aspects in no way involve the I (subject) which is therefore an illusion.

A bonus.-- O.c., 191.-- "It is often said -- e.g. *J. Searle, The Rediscovery of the Mind*, M.I.T. Press, 1991 -- that the several views advocated by today's materialist thinkers rest exclusively on an analysis "in the third person" (*note:* the mere external viewing of externally observable, physically determinable behavior, -- apparently a rock-solid residue of behaviorism) of such phenomena as beliefs and desires.--

It is equally often said that, precisely because such states/ processes/ features (*note:* the intentional phenomena) are seemingly separate from the phenomenal (qualitative) or experiential properties (*note:* see a above), the theories in question have either ignored or neglected consciousness as a given!

According to Engel, this view is somewhat true. But she untrue when she argues that materialist theories have simply ignored consciousness as a given.

For example, he says of Dan. Dennett that the latter spends a lot of time trying to convince us that consciousness is

a. is not the place where private, inner, ineffable qualities are experienced;

b. is not a subjective viewpoint and is certainly not an I or a subject. "Should one conclude from this that consciousness simply does not exist (for Dennett).

In fact, Dennett seems to reduce consciousness to the fact that we have a "virtual machine" somewhere and that this is precisely what brings us to consciousness.

Conclusion.-- Dennett's explanations are very cumbersome and seem to do everything possible to eliminate the Cartesian conception of consciousness.

E.O. COGN. 05.
Mental Phenomena. (05/06)
Bibl. sample: *P. Engel, Introduction à la phil. de l'esprit*, (Introduction to the philosophy of mind), Paris, 1994 2, 21.

Finally, within cognitivism, the issue is the "mental/physical" distinction. What is the criterion (means of distinction)?

The opinion of Don. Davidson.
D. Davidson, Essays on Action and Events, Oxford Univ. Pr., 1980, speaks of all that is real in terms of "events" (Eng.: events, i.e. singular data). According to him an event is mental or physical if it is about a mental or physical description.

E.g.: an event represented in the description "believes that the earth is round", is mental (because of the intentionality that is expressed). But e.g. a sound, a physical event, can cause mental events, namely the perception (experience of a quale or phenomenon) of that sound, just as a mental event such as an 'intention' or intention (giving someone an ear rub) can cause a physical event (the administered, externally experienced ear rub).

Angel's response.
But how to define a mental or a physical description as a description? For example, is a description that conforms to the laws of physics ipso facto a "physical" description? But what is "a physical law"? Do physical laws exist?

Note.-- Engel is pointing here to a form of holism, i.e. the fact that a definition cannot do without definition-parts which themselves call for definition!
In other words: the concept of law e.g. is situated in a whole ('holon', Lat.: totum, a whole or coherence/likeness).

Intentionality.
Engel says that (language) analytic philosophers set as a criterion for all that is mental what is called "intentionality. This is a property of our inner life by which we react to certain objects, properties, relations, processes. If the data of the world have been realized, we react with 'belief' (croyance); if they are still to be realized, we react with 'desire'. Believing something, desiring something are 'intentional' reactions which refer to reality in any case,--which carry that reality as their content (even if that 'reality' is e.g. Santa Claus which does not exist for cognitivists).

In other words: one can ‘misrepresent’ (Fr.: méreprésenter, misrepresent). Intentionality, as the Austrian school (Fr. Brentano) interpreted it, stood in contrast to physical phenomena (as the basis the humanities versus natural sciences).

A number of current thinkers attempted to naturalize intentionality, i.e. to interpret it as if it were a physical phenomenon. The most radical among them are Fred Dretske and Ruth Millikan who “naturalize” intentionality from the brain that orientates to the world.

Don’t confuse.

J. Proust, Intentionalité, in: *O.Houde et al., éds., Vocabulaire de sciences cognitives*, Paris, 1998, 241, says : one should not confuse the term ‘intentionality’ with the terms ‘intention’, ‘intensity’ and ‘intensiveness’.

1. *Intent*.

To cherish the ‘intention’ to get to work is only a private category (*op.:* subclass) of the concept of ‘inner representation’: it is ‘intention’ and as a norm of wanting the introduction to acting. In other words: she a type of intentionality.

2. *Intension/Extension.*

According to Gottl. Frege, the representation forbidden by a sign is its ‘Sinn’ or intensity and the signified object is its ‘Bedeutung’ or extension.

Thus, ‘morning star’ and ‘evening star’ are distinguishable by ‘Sinn’ (intensity) but identical by ‘Bedeutung’ (extension), for they ‘refer’ to the same ‘referent’, the planet Venus.

***Note* --** One should not confuse this with the scholastic ‘comprehensio’ / ‘extensio’: the contents ‘morning star’ and ‘evening star’ refer to two different comprehensives (‘extensions’), viz. Venus as far as morning star and Venus as far as evening star.

2.1. Intension is the conceptual content of a term, opposite to its extension (which “categorizes” singular instances).

2.2. Intensionality (intensional language use) is a property of a language use (logistics, language treatment) such that the coreferential terms are not interchangeable without changing the truth value of the proposition in which they appear. In contrast, extensional language use in which that exchange salve veritate, without shortchanging the truth, is always possible (logistics, language treatment).

E.O. COGN. 07.

Belief (belief, croyance). (07/12)

Bibl. sample: *P. Engel, Introduction à la philosophie de l' esprit*, Paris 1994-2, 94/98 (*Quatre caractéristiques des croyances*), (Four characteristics of beliefs).

1. *Believing is a mental state.*

As such, it is semantically testable given its intentional content.

It is a propositional attitude with the structure, "X believes that p" ('p': some proposition). In other words: as a true propositional content, belief possesses truth-conditions.

Consequence: "X believes that p is true". Well, p is true if and only if a set of conditions are present in the world.

a. '***Individuation'***. -- Here 'individuation' means the fact that the content of a belief - e.g. p as "that it is raining" - is decisive: namely, if one knows the content (what believing is), then one knows what kind ('individuation' here is 'like'!) of belief it is about.

b. ***'Obscurity'***. -- It is also said that "our attributions in the course of ordinary life are 'obscure'": "If X believes that a is F (attributes F to a) and if a = b, it does not follow that X believes that b is F". In other words: the intensity, in the mind of the common mind, i.e. what the average person thinks, believes, is dark and does not draw all conclusions from that intensity or content.

2. *Believing works causally* (causally).

If X believes, then this has consequences in the area of behavior e.g.. For belief 'produces' behavior.

Functional profile.-- 'Function' means 'dependence', -- not just being decisive.

a. Belief is caused by other mental states (desires, other beliefs) - is function of them - and

b. belief exerts a causal influence on the contents of other mental states.-- That interlocking existence regarding causality, is called functional profile.

Structural.

A practical reasoning: "If X believes that p, and if X desires that q, and if X believes that by doing A he / she will achieve his desire, then X will do A;

Population Psychology.

Folk Psychology is daily reasoning like this about causality - functional or not - concerning intentional acts. Which is, first of all, day-to-day practical reasoning - explaining.

E.O. COGN. 08.

Explanation.

With Engel we briefly elaborate on "lawful causation" in connection with beliefs.

1.-- *Causality*.

M. Kistler, Causalité, in: *O. Houde et al., éds., Vocabulaire de sciences cognitives,* Paris, 1998, 70, says that the predominant - not the only - theory in this regard is the nomological one. This theory states that two (or more) events A and B (*or* C, D etc.) are cause and effect if and only if they are an application of a natural law (nomos.., lat. lex, law) which 'connects' A and B.

As an aside, this plays a leading role in Donald Davidson's anomic monism.

Appl. model.

My belief that there is beer in the refrigerator has an individualizing content, which causes: together with my desire to drink a beer (functional profile) my belief causes the act, i.e. I had beer from the refrigerator.-- Another belief with a different content e.g. would not necessarily cause that act (proving that the belief content works).

2.-- *Lawful causation*.

"Who says cause, says law" (Engel, o.c., 95). Where physics is paragon, working with "strict" (tolerating no exceptions) laws.

Folk psychology.

"If X believes that p, and if X believes that q, then X will do A".

Folk Psychology thinks this way and also thinks (often not explicitly): "unless there are circumstances that work as exceptions to the rule (law)". In other words: folk psychology may consider beliefs to be susceptible to generalizations (suggesting lawfulness), but it is not about "strict" laws. It is about "rules with exceptions".

Note -- Many claimants think that the characteristics (propositional attitude and lawful causality) just expounded are sufficient to label a mental state as belief. Pascal Engel thinks they do not suffice. He adds the following two.

3. *Faith content is holistic.*

Faith does not possess only a propositional content in itself. It is composed of concepts. In other words, belief is impossible without the concepts contained in it and the concepts related to those concepts.

Holism means that too long last everything is related to everything else,--that a single individualized belief is "function of" the rest.

E.O. COGN. 09

As an aside, if there are two thinkers who thought 'holistically', then Plato and Hegel (but 'anagogically', i.e. more than purely materialist. Their 'dialectic' is precisely "thinking everything including everything".

Application.

It can be claimed of me that "I believe that this man is married". However, as long as I do not have concepts such as "husband", "being married", etc. at my disposal, it cannot be claimed of me that I believe that this man is married.

Even more: 'Married', said of a man, is only attributable with the inclusion of 'woman'. Immediately also the opposite, 'unmarried', rises in my mind and e.g. also "marriage" as a social institution.-- Angel: these are faith contents that partly produce my belief "This man is married".

Endless?

How far must one go in that network to grant me the belief that this man is married? Surely one cannot "believe" all relationships along (at least consciously)!

4. ***Faith is an intentional state of the second order.***

"X believes that p" (p as e.g. "that Naomi is married") is insufficient: some belief that "X believes that p", is necessary as a possibility (of reflection on the first order belief).

In other words: to truly believe, one must be able to be aware that one believes. Cognitivistically expressed, 'One must be able to believe that one believes' or 'One must be able to imagine that one believes; '

Disposition.

A belief is not necessarily an attitude that has a real awareness of itself there are many beliefs that are merely dispositional. They are, in fact, dispositions, parts, of the behavior that one ascribes to without the consciousness that one has such dispositions.-

Application.

"I can believe that walking on the ice of a pond is dangerous,-- without consciously thinking of that propositional content (without imagining that content). I do show that content by not venturing onto the ice myself or by reminding my children of the danger.

Yet that content is dispositional apparently because it regulates -- "produces" -- my behavior, even if I don't give it a second thought or even if I don't think about it at all.-- There are many beliefs even that we have without ever thinking about it as e.g. that the elephants in the savannah never wear pajamas (according to Engel).

But - says Engel all the time - though such forms of belief are unconscious, they must be able to penetrate consciousness. They must be "potentially conscious." If not, they cannot be attributed to us.

As an aside, there are states of the more than second order. "I believe that X believes that Y believes that p". Or still: "Mam does not know that dad believes that I believe that she knows that today is Mother's Day" (4-order).

Toemaatje.

Bibl. sample:

-- *Arlette Streri, Causalité,* (Causality,), in: *O. Houdé et al, éds., Vocabulaire de sciences cognitives*, Paris, 198, 69.

-- *Albert Michotte* (*van den Berck*), *La perception de la causalite*, (The perception of causality), Louvain, 1946, talks about the detached perception of the causal process, where the one who watches is neither caused nor caused.

Example.

Jan sees Mathilde cutting bread in the morning. At least two distinct details are noted in the process that are very close to each other in time and space. Here:

a. Mathilde with the bread knife in hand and

b. the bread to be cut. John sees the productive nature of the causation (the quale or phenomenon): the cuts come free!

According to Streri, this watching is accompanied by an illusion:

a. when a movable thing A moving with uniform speed towards an object B which, once that A comes in the immediate vicinity of B, begins to move in the same direction, A is seen to 'push' B (in Mathilde's case: penetrate the bread);

b. in addition, that observation makes believe that A's velocity accelerates in the immediate vicinity of B.

Note.-- One sees phenomenism inherent in modern thought, especially since D. Hume.

According to Michotte, however, the observed causation is a "gestalt" (Fr.: forme), i.e. a totality (as Gestalt theory sees it). Thus, the structure of the act of perception exhibits something like an innate basic principle.

Bonus.-- Bibl. sample: *A. Streri*, ibid., 69/70. -- *Cognitive development*.-- According to *Jean Piaget, Le construction de réel chez l'enfant*, (The construction of reality in the child,), Neuchâtel (CH), 1937, the grasping of causal relations (VT (omen) = cause / VV (continuation) consequence) is central to the development of intelligence ("cognitive development").

E.O. COGN. 03.

The relations which keep the baby's attention going are all first those in which the baby himself "causes". At the fifth month, the baby harbors an interpretation concerning causing that Piaget calls "magical-phenomenistic": the baby indeed grasps an order "own action (VT)/the occurrence of phenomena in its environment (VV)" and attributes the VV (effect) to the VT (cause).

After a long process (decentration and objectification), a two-year-old baby readily grasps causal connections.

Current experts, including *Elizabeth Spelke* (*Object Perception, Objec Directed Action, and Physical Kwowledge in Infancy*), in: *M.S. Gazzarriga, ed., The Cognitive Neurosciences*, M.I.T. Press, 1995), demonstrate early understanding regarding the laws of physics in young infants.

Which puts Piaget's views under fire. - But no study has shown the existence of perception immediately after birth. - The contact principle (i.e., the principle of coherence in time and space of data that captures the perception of causing) is acquired only around the sixth month.

Naturalizing mental phenomena.

One feels it all the time that the mental life is very physics-based in its approach.

Scenario.

I believe a burglar broke into the seat.

a. My belief is the representation of something and thus has semantic traits.

(1) It strikes at something,-- in this case at a burglar and imagines him as penetrating the seat.

(2) It is governed by truth conditions: it is true only to the extent that (if and only if) an intruder entered the seat.

b. My beliefs have causal effects: I can use them to explain something, to "rationalize" behavior: I grab my gun because I believe a burglar is in the seat.

Naturalism on intentional states.

Well, I am also a physical being, subject to physical laws,-- consisting of atoms, microelements (also governed by physical laws),-- consisting of cells, genes as a member of a biological species (governed by physical and biological laws).

The problem.

(1) Intentional and semantic concepts such as 'reference' (reference), 'truth-condition; 'meaning', do not occur in physics or biology.

(2) More so; a subset (mathematically: subset) of the intentional states - belief and other propositional attitudes - are subject to norms. They are right/wrong, rational/irrational e.g..

Such terms - Don. Davidson notes - do not appear in physical or biological theory.

So how can they be explained in terms of a physical or biological theory? That is the intentionality problem as posed by the physicalist or the naturalist.

Or still, "How can intentional states be enclosed in the physical causal order? ".

Or still: "How can physical states be capable of representing or not representing something? How can they, as 'representational' (representing) states, i.e. states with intentional content, cause behavior? ".

Engel cites theories briefly.

Behaviorism and identity theory (*note:* about which later) - each in its own way - identify intentional states and physical realities : for them they are either dispositions proper to behavior or they are neuronal (the central nervous system proper) states.

But, even if that is so, how can e.g. belief or desire, identifiable with physical states (according to stated theory and), simultaneously exhibit a (mental) content and be properties of dispositions or neuronal states? Functionalism too faces such problems.

Engel also refers to *Fred Dretske, Knowledge and the Flow of Information*, Oxford, 1981, who finally introduces the term "information" (in the physics sense) to "naturalize" intentionality.

Note.-- One feels it: P. Engel is on the one hand a cognitivist but on the other hand he also sees very sharply the problem, the central problem, i.e. how to reduce the mental in all of us, i.e. our minds, to the physical (too long last), i.e. to matter?

The texts that follow now have a background. We have interpreted the theme of 'faith' in itself cognitivistically but have also situated it in the core of materialism in its cognitivist forms (because plural opinions are in circulation).

E.O. COGN. 13.

Animal mental life. (1/143)

Bibl. sample: *P. Engel, Introduction à la philosophie de l'esprit*, Paris 1994-2, 23/119 (Si les brutes pensent).

We draw attention to this cognitivist aspect for a moment.

Folk psychology has long known that animal behavior e.g. shows absent-mindedness (presence of conscious reactions) with its consequences,-- that it shows feigning (some birds pretend to be mortally wounded in order to remove a predator from them),-- a behavior that betrays conscious action.

1. No one denies that animals - at least the 'higher' animals - exhibit informational states such that they have information about the universe surrounding them that they see, hear, smell, touch.

2. But - says Engel - such informational states are not yet a "belief" as cognitivism defines it (with its four traits).

It is true that animals possess intentional states with a content (the dog by walking back and forth between his mistress and his food pot shows his belief that she will give him food, -- shows his wish that he will have food) and at once causal capacity (if need be, he manipulates the door handle to get in and succeeds). Those are two traits of faith.

Note.-- That animal consciousness exhibits holistic traits is evidenced by the insatiable urge to explore that causes the animal to sniff out its biotope, in the broadest sense.

Only the second-order mental states seem to be a problem : e.g. does the dog realize that he realizes?

Note.-- *J. Vauclair, Cognition animale*, (Animal cognition,), in: *D.Houdé et al.* , éds., *Vocabulaire de sciences cognitives*, Paris, 1998, 72/74, says that animal cognition is object of two "great specialisms".

a. Comparative psychology examines, among other things, the observation and learning of communication signals, the structure of belief as far as influenced by memory, the search and collection behavior (Eng.: foraging), whether or not within the laboratory.

b. Comparative ethology (empirical behavioral study) studies, among other things, mental experiences of animals, their animal consciousness and beliefs.

E.O. COGN. 143.

Lloyd Morgan's Catagogical Rule.

P. Engel, o.c., 103.-- 'Catagogic' means 'downward'. According to Morgan's rule of parsimony, in no case is an act referred to as a product of the exercise of a higher mental capacity if it can be referred to as the product of a capacity situated on the psychological scale at a lower level.

Short: "Why put the higher first if it can also be explained with the lower? ".

Animal lovers will cite a crowd of anecdotes in this regard that seem to show that higher mental faculties are at work.

Bibl. sample:

-- *D. Premack/ G. Woodruff, Does the Chimpanzee Have a Theory of Mind*, in: *Behavioral and Brain Sciences* 1978, 1: 516/526.

-- *R. Seyfath et al, Monkey Responses to Different Alarm Calls* (*Evidence of Predator Classification and Animal Communication*), in: *Science* 14 (1980): 301/321.

Proponents appeal to the fact that gorillas exhibit alarm cries that differ according to the predators (leopard, snake, eagle). But Engel believes that such a "simple fact" does not yet prove that there can be a real communication system.

They also refer to the fact that in the course of a confrontation between two rival groups disputing the same territory, a monkey emits a cry that applies to leopards. With the result that all monkeys flee into the threes. With the second consequence that the group to which that one monkey belongs makes it.

Such a thing seems to imply that the ape who deceives believes (is convinced of the fact) that other apes believe with the intention of deceiving those other apes on that basis. One can even see a kind of commanding language in it.

Seyfarth et al. install loudspeakers in the bushes to test their hypotheses about the true nature of the alarm calls of monkeys, and they arrange the circumstances so that the monkey that uttered the alarm call can be identified by the other monkeys.

But Engel says: these are only anecdotes that stand out against the predominant behavioral type (behavioristically interpreted) that shows no faith.

One cannot establish a scientific method on anecdotes. Immediately he refers to D. Dennett who reverses and tests Ll.Morgen's frugality rule. But that leads us too far.

E.O. COGN. 15

Interpretation Theory. (15/19)

Bibl. sample: *P. Engel, Introduction à la philosophie de l'esprit*, Paris, 1994-2, 71/92 (*Théories de l' interpretation et théorie de l'esprit*).

The given: mental contents (particularly the contents of propositional attitudes) in fellow humans.-- The asked : what are the truth conditions in ascribing them to others?

In other words, how can we recognize our fellow humans as gifted with mental life?

By way of introduction.

The prevailing cognitivism is essentially about third-person psychology. The top model of scientism is and remains physics and, immediately, biology. As Engel, o.c., 192, says: one's own evidences experienced through reflective method simply do not apply. Only the cool, 'objective' (understand: as an object outside the watching indicating) view - inherent to all that is modern - counts.

What has been introduced since N.Coppernicus (1473/1543), Tycho Brahe (1546/1601), J. Kepler (1571/ 1630), G. Galilei (1564/1642) and dominates the modern mentality - i.e. what the typically modern, rationalist man 'believes'.

The following is not first-person psychology but third-person psychology in that spirit. -- It is not even second-person psychology which by direct empathy with fellow human beings comes to an awareness of inner life in others (the so-called verstehende or understanding method). No : this is third-person psychology and philosophy.

Three theories

Engel pauses to consider the following interpretations.

I.-- ***Rationalizing theories.***

For example, *W.V.O. Quine, Word and Object*, M.I.T. Press, 1960.

Behaviorist.

GG.-- Fellow human beings express themselves through words.

GV.-- How can we interpret what they want to say? Focused on, "How can one translate one language into another?

Theoretically.-- Quine is talking about an analogy.

(1) ***Radical translation.***

A linguist-ethnologist wants to write a translation book in which translation refers to his language and a native language. But the only data he has is the verbal and non-verbal behavior of the natives as well as knowledge of their natural landscape.

Quine's reasoning is clarified by the following sentence.

E.O. COGN. 16.

For a collection G of behavioral and natural landscape data, if there exists a translation handbook V1, which translates the sentences of a language T into those of a language T', then it is always possible to construct at least another translation handbook V2 which does not correspond to V1 (the correlations between T and T' differ therein from those of V1) but does correspond to G.-- In other words : the scheme of ambiguity.

(2) ***Analogy.***

To this the attribution of intentional opinions and contents is similar. For to ascribe a meaning to the sentences uttered by a fellow man is at the same time to ascribe mental states to him.-- Well, one can always interpret differently.-- : the scheme of ambiguity.-- That as far as strict theory is concerned.

Practical.

However, we have practical criteria (distinguishing tools) at our disposal both for translating (ad (1)) and for interpreting what our fellow men think (ad (2)).-- One of these is the following.

The love axiom.

It is postulated that the beliefs ('beliefs') of those whose language we are interpreting are rational and immediately consistent (contradiction-free).-- This is about 'rational' love!

Variants.

Quine 's theory and practical stance are in turn "translated" and "interpreted.

(1) ***Donald Davidson.***

Holds the same doctrine of interpretation except for two points.

1/ Quine 's theory is behaviorist.

Davidson: An interpreter can attribute mental life (e.g. belief) to a fellow human being not by behavior but by the forms of belief that the fellow human being cherishes and expresses concerning the truth of his sentences (he/she can hold some sentences to be true e.g.). Thus one penetrates to a number of mental attitudes.

In other words: Given: the fellow interprets some sentences as true; Asked : from there the interpreter tries to determine the meaning of them,--what opinions they express.

2/ Davidson extends the love axiom beyond logical consistency (Quine): the interpretive presupposes that most opinions of fellow humans are true.

On the basis of what the interpreter himself considers to be true and on the basis of the attitudes "held to be true" by his fellow man, the interpreter constructs a theory concerning the content of the opinions of his fellow man.

E.O. COGN. 17.

Does the interpreter discover in the fellow man untrue, rejected or inconsistent expressions (belief, wish etc.), then he updates the initial theory,--which then functions as a rule with exceptions.

(2) *Daniel Dennett, Intentional Systems*, M.I.T. Press, 19787- honors Quine ‘s theory but with a different basis (axiomatics).

For Dennett, the basis of behavioural interpretation is a general theory concerning the object to be interpreted (a machine (computer, for example), an organism, a human being). This theory is tested : one checks whether the object lives up to it.

a. It is assumed that the object (a system e.g.) is capable of mental life;

b. it is also supposed that the intentional object possesses the opinions (beliefs e.g.) which it should possess (i.e.: to present it as as rational as possible: pretending that it exhibits the desires and needs e.g. which it should have in view of its destination (if machine, then functioning properly; if an organism, then biologically in order)). Until it is shown to be otherwise.

In other words: a rule with exceptions (non-eventful reasoning).

II. *The folk psychological theory.*

Also “people theory.

-- Thus *David Lewis, Analog and Digital*, in: *Nous* v: 321: 327.

-- *Jerry Fodor, Psychosemantics* (*The Problem of Meaning in the Philosophy of Mind*), M.I.T. Press, 1987.

-- Also *A. Leslie, Some Implications of Pretense for Mechanisms underlying the Child ‘s Theory of Mind* (1987).

Thesis.

An interpretive does not apply a normative (presupposed as a norm) rationality (Quine,-- Davidson, Dennett); rather laws proper to an unexpressed theory concerning the mental in every human being, at least the adult human being.

As an aside, such laws are not strict (physical) laws but empirical (experience-based generalizations).

Example.

“If someone desires to drink and believes (is convinced) that the glass in front of him/her contains water, he/she will drink it. Unless, of course, he/she does not like water. Or: “If a husband is jealous and believes that his wife is cheating on him, he will follow them closely”.

It is apparently about causal and functional relations between mental states in behaviors, which make up the basis.

E.O. COGN. 18.

As an aside: one belief is function of another; belief is function of desire and other states;-- acts are function of belief, desire et al (that's the functional aspect).

David Lewis is a materialist.

The totality of the platitudes ("laws") make up the unexpressed definition of mental states that our folk psychology articulates. They are thoroughly correct but too undeveloped. An elaborate professional science -- cognitive psychology first and foremost -- expresses all this: by exposing how such mental states are brought about in the physical structures of our minds.-- One sees the enormous authority of physics.

Jerry Fodor is a computationist.

Hulds holds a similar view but according to him mental states are not only "functional" but also computational: they involve calculi, (logistic) arithmetic with mental representations. These are what the symbols of inner logical speech are, a language of thought. Here one feels the influence of the cognitive main paradigm.

For Lewis and Fodor, this is a real theory, for it involves a number of laws of the mind,-- laws that apply "ceteris paribus" (under otherwise equal circumstances), i.e., tolerate exceptions and are "true in so far as..

Note **--** Engel, o.c., 83.

1- The rationalizing and folk psychological theories do not diverge so far with regard to the very form of the knowing that an interpreter applies when he ascribes mental states to the fellow man. For both theories state that this knowing is relatively theoretical-systematic and both state that the interpreter presupposes some laws according to which the fellow man behaves.

2. The difference.-- The rationalizing theory holds that that knowing (note: an axiomatics) does not rest on empirical generalizations but on a-prior rules that fellow humans must (normatively) apply.

A substructure that supports the attributions is possible in this regard. Folk psychological theory holds that this underpinning consists of real states.

Both theories argue that the empirical generalizations of folk psychology are types of causal explanations.

E.O. COGN. 19.

Summary.

The rationalizing theory considers the mental to be essentially normative : ascribing mental states to fellow human beings, i.e. interpreting their inner life through their behavior, goes hand in hand with the prevalence of norms. The axiom is that they are either correct or incorrect (good/bad). There is value judgment involved. Engel considers this difference from folk psychological theory, for example, decisive for the answer to the question, "Is there a natural science of mind? ".

III. *The projectivist theory.*

In short, "projection theory.

-- Thus *R.Grandy, Charity, Interpretation, and Belief*, in: *Journal of Philosophy* 1973;

-- *S. Stich, From Folk Psychology to Cognitive Science*, M.I.T. Press, 1983;

-- *R. Gordon, The Structure of Emotions*, Cambridge Univ. Press, 1982;

-- *A. Goldman, Interpretation Psychologized*, in: *Mind and Language* 4:3, 161/185.-- Neither normative rationality nor folk psychology! Well what follows.

a. Starting point is the self-observation of one's own individual mental states (somewhat reminiscent of the reflective method).

b. Projection (literally: insertion) of one's own states into fellow humans with similar states. In other words: one simulates in fellow men what one experiences in oneself. - This reminds one of the axiom of the equality of beings inherent in the investigative method.

Note.-- This betrays an analogy reasoning: in virtue of empathy (empathizing with the inner life of fellow human beings) one puts oneself in the place of the person to whom one attributes mental states. Thus: "What would X believe, if in the same situation he/she held some belief similar to mine? ".

Alvin Goldman.

He criticizes: the rational love axiom is too often contradicted in practice (logically-consistent people are too few). In cognitive psychology, in the human sciences without more (economics e.g.) one encounters the sometimes great lack of logi(sti)cal consistency or applied logic.

In other words: there is the everyday irrationality of people and there is the pathological irrationality of some people.

E.O. COGN. 20.

Projection theory: pros and cons. (20/23)

Bibl. sample: *P. Engel, Introduction à la philosophie de l' esprit*, Paris 1994-2, 77/92.

Summarize once again.

(1) ***Content:*** ascribing an attitude-content (to a fellow human being), i.e. ascribing inner life - e.g. "X believes (is convinced) that p" - amounts to ascribing to the fellow human being - e.g. a belief and its content p - something that, if I believed that p, resembles mine."

(2) ***Magnitude***: that type of interpreting - projecting, 'simulating' - is ubiquitous. Indeed, one goes after people: this is how they proceed concerning the inner - 'mental' or 'intentional' - life of the fellow.

Alvin Goldman.

This projectionist psychologizes the interpretation of inner life but at the same time he is talking about an objective fact: he relies on experimental data.

Introduction. Paralogisms on probability estimation.

Bibl. sample: *D. Kahnemann/ A.Tversky, eds., Judgment under Uncertainty* (*Heuristics and Biases*), Cambridge Univ. Press, 1982.

GG: the familiar faulty reasoning regarding probability estimation;

GV: its explanation o.g. attribution of mental states of a projective or simulative nature.

Anecdote.

Given.-- Two businessmen are preparing for a trip. They each take a different plane leaving at the same hour but with a different destination. In the same cab, they depart from the city center but get stuck in a traffic jam and arrive at the airport half an hour late. One learns that his plane left on time; the other that his was delayed and only took off five minutes ago.

Asked.-- Which of the two lives through inwardly the greatest boredom/disappointment?

Results.

Solution. The vast majority answered, "The second one."

Goldman.-- The pp. put themselves in the place of the businessmen, and immediately they answered as a function of how they themselves understood their reaction of mind in virtue of projection.

Developmental psychology.-- Goldman invokes developmental psychology that studied the emergence of beliefs and the attribution of mental contents in children.

E.O. COGN. 21.

-- Thus *H. Wimmer/ J. Perner, Beliefs about Beliefs* (*Young Children's Reasoning about Beliefs*), in: Cognition 13 (1983): 103/128;

-- *A. Leslie, Pretense and Representation* (*The Origins of Theory of Mind*), in: *Psychological Review* 94 (1987): 412/416;

-- *id., Some Implications for Mechanisms underlying the Child's Theory of Mind, in: J.Astington et al, eds., Developing Theories of Mind*, Cambridge Univ. Press, 1988, 19/46;

-- *H. Welman, The child's Theory of Mind*, M.I.T. Press, 1991.

Wimmer/ Perner,-- A sample.

GG.-- A scene in which a protagonist (e.g., a doll) is shown an object (a piece of chocolate, e.g.,) in a particular place X (e.g., a box). Whereupon the object is moved from X to Y (another box e.g.). Without the protagonist (the doll e.g.) knowing it.

GV.-- Children in groups - 3 to 4; 4 to 6; 6+ - follow the scenes. She must understand that the protagonist (in this case, the doll) must believe that the object is still in X.

Note.-- Their childlike ability to attribute some belief is function of their ability to attribute untrue forms of belief,-- i.e.: to distinguish the belief of the protagonist (the puppet in this case) from reality.

Solutions.

(1) The less than 4 answers throughout that the protagonist will believe that the object is in Y (reality). I.e.: they do not yet possess the ability to attribute to the protagonist the untrue belief that the object is in X (i.e., they are incorrectly indicating. inner life).

(2) 57% of 4 to 6 come to attribute the untrue belief. (3) 66% of 6 to 9 come to.

Note.-- Children with Down syndrome (mongolism) succeed at 86% at the appropriate age.-- Autistic children succeed at only 20%.

Value Judgment.

The ability to attribute a belief (faith) - in this case, an untrue belief - seems non-existent among the under-4s.

This inability is not function of mental retardation (mongols) but function of the absence of the ability to imagine mental states in others and attribute them to those others (which seems to be lacking in autistic children).

E.O. COGN. 22.

The typical feature of the projection theory is indeed the ‘insertion’ of one’s own mental states into others, but even more so the exclusion of any theory of mind, as the rationalizing and folk psychological views presuppose. In other words : we would interpret **a.** from ourselves and **b.** without theory.

Critiques.-- Engel cites two.

1. *Don. Davidson.*

A projection does not necessarily (necessarily) exclude a theory: a interpretive may nevertheless possess normative presuppositions (rationalizing and folk psychological theories) as a guiding axiom, which he/she applies while projecting his/her own mental states into the others.

That logical coherence then concentrates in one’s own mental operations such that what he/she assumes to be true and coherent, then projects into the others.

2. *Dan. Dennett.*

In his *The Intentional Stance*, M.I.T. Press, 1987. Dennett notes that there are many cases where projection is impossible.

(1) When we do not have any prior understanding that we would like to project. In that case, some kind of “theory” is inevitable. By the way : can a projection exist without a theory?

Picture this: you are an interrupted bridge! How would you project that without, say, some naive physicist talking about interrupted bridges?

(2) Even if a prior understanding is present, wouldn’t rationalizing or folk psychological theory allow us to project equally well?

Angel. The research results mentioned above can be excellently explained in virtue of

a. the folk psychological and

b. even the rationalizing theories.

In particular: the less than four like the autistic children lack precisely a theory concerning the mind (in themselves and in others) or at least a set of presuppositions which would allow mental states

a. to be ascribed and

b. even predicted,--especially (as seen) mental states (representations) of the second order (reflective form of consciousness) concerning mental states of the first order (spontaneous form of consciousness). One can -- according to Engel -- represent such ‘theory’ or at least ‘representations’ either as innate or as acquired. Below 4 it is then not yet active or not yet acquired.

E.O. COGN. 23.

Dan. Dennett.-- Cognitive dissonance.

Given.-- Jef spent three months building an additional wing to his house. It looks archly ugly. But due to cognitive dissonance ("telling oneself the opposite of reality"), Jef believes it looks very accomplished.

Asked -- How to attribute such a belief (conviction) to him? In other words : how can we understand such a thing?

1. We can put ourselves in his place (empathy,--"simulation") and consider what beliefs we would hold in the same situation.

2. To we can also - on the basis of what we already know a. of Jef and b. of people's predisposition to cognitive dissonance (irrationality form) - ask ourselves what beliefs someone who finds himself in the situation described should have (normative theory) in order to lead from it the belief of Jef or (deduction) and thus predict it.

We will undoubtedly draw the same conclusions if we put ourselves in his place.

Conclusion.

Even in cases like that of cognitive dissonance (in which the beliefs of those involved are not optimal (we say irrational)), the rationalizing theory is applicable with the same result as the projective one.

In other words, isn't it obvious that the two methods are similar? That they are not really different? Yes, one can interpret them as two different formulations of the same insight insofar as applying the rationalizing theory (logical coherence) presupposes a Psychological insight while the projective one presupposes a theory.

In other words, the second-person question "What would I believe (if I were in Jef's place)? " is not radically different from the third-person question, "What should Jef believe in his situation? ". Still put another way, the rational and normative love axiom is in no way inconsistent with the simulation (empathy) axiom.

Note.-- As to second-person psychology, reference should be made to the psychology course when it speaks of the empathizing or in German said the verstehende method (*W.Dilthey* (1833/1911)) with its interpretation of the signs that the behavior of fellow human beings reveal concerning their inner life (their "soul" or "spirit"). Cf. his *Einleitung in die Geisteswissenschaften* (Introduction to the Humanities), (1883).

E.O. COGN. 24.

Population psychology theory: pros and cons. (24/29)

Bibl. sample: *P. Engel, Introduction à la philosophie de l'esprit*, Paris 1994-2, 86ss..

It is essentially about A. Leslie's theory.

1.-- ***Leslie's hypothesis.***

1.1. Leslie himself does not argue that the child psychology studies under his direction regarding children's pretending lead one to argue that the attribution of mental states relies on a process of simulating (empathizing with), as Goldman points out his results.

1.2. Leslie - far from being a projectivist - clearly stands for a folk psychological theory that closely approximates Fodor's.

2.1. Leslie clearly states that children under 4 and autistic children lack a theory of mind that would allow them to attribute "representations" (representations) to others. In other words : they lack a certain ability a. to imagine something and b. to imagine representations (meta representations).

2.2. Computationism.

Leslie identifies the inner cognitive life as revolving around a form of symbolic representations (which are thus absent from the under-4s and autistics) : every cognition contains symbols with which the mind calculates.

a. In phase 1 from 2 to 4 children acquire - from pretend acts - the ability to attribute mental states. Basically, they acquire meta-presentations about untrue representations or about alternative representations of reality, such as e.g. "X believes that p" or "X pretends q".

b. This points to the logi(sti)cal form of representing propositional attitudes or more simply sentences of propositional attitudes.

Value Judgment.

1. Linguists, logicians, philosophers disagree among themselves regarding the proper analysis of Leslie's statements. Thus: "Do they imply a relation between the subject of the attitude verb and an utterance? ". Or: "Do they embrace a relation to a more abstract fact than a proposition.

Note **---** We reproduce the text of P. Engel, who himself represents cognitivist speaking as accurately as possible, with its complications. That speaking is thoroughly third person psychological.

E.O. COGN. 25.

2. A curious isomorphism.

However, there is general agreement concerning the following semantic properties of such statements (repeated : “X believes that p” and “X pretends q”)

2.1. ***A threefold series on beliefs.***

a. The referential (reference) undecidability.-- One term with the same reference (reference) cannot replace another in such contexts. Thus: “From ‘X believes (desires, hopes, etc.) that a F one cannot infer ‘If a is b, then X believes that b is F’”.

b. Failure to appreciate the truth/untruth of the inserted sentence. For example: “From ‘If X believes that a is F’, one cannot infer that a is F.”

c. Failure to apprehend the existence of the objects or properties indicated by the words of the inserted sentence (their reference). Thus: “From “X believes that a is F; one cannot infer that a exists”.

Well, Leslie argues that such traits are perfectly typical of pretending.

Ad a. When a child pretends e.g. a banana is a telephone device, he substitutes one object for another.

In other words: it suspends the normal reference (indication of something) of each of the terms. This is characteristic of the referential undecidability of attitude statements.

Ad b. A child - by ascribing so called features (pretend features) - suspends the actual (objective) features of it and immediately the truth/untruth of the sentence in which it ascribes that feature.

Ad c. A child shows himself capable of an act of imagination which suspends the ‘real’ (objective) character - the existence of the indicated object.

Conclusion.

There is isomorphism (similarity) between the semantic traits of sentences expressing propositional attitudes and the psychological traits of pretending (a psychological act). This isomorphism is not accidental: the ability to form meta-presentations and to articulate language contents of e.g. belief and such must be similar.

E.O. COGN. 26.

Leslie's hypothesis.-- In two main points.

1.-- When a child formulates his pretending through a mechanism that makes him imagine what he is doing ("I claim that this bag contains water"), he formulates in himself his own inner representations according to the following scheme :

world (e.g., a bag with water in it)
first performance (e.g., initial perception)
act ("I claim that this bag contains water")
meta representation (image of the first representation)
do-as-you-please:("I pretend (I claim) that this bag contains water

2.-- This process is not purely "self-centered" and subjective. Being able to pretend in oneself relies on the same processes and representations as being able to understand that others are pretending.

Thus, his hypothesis reads in short: "A child arrives at a second image of a first image (representation)."

What Leslie certainly does not do is argue that the image is created by projection from a child's inner representation.

In other words: it does not start from conscious subjective experience.

II.-- ***Children less than 4.***

A problem arises: children from 2 to 3 are capable of meta-presentations and immediately of attributing propositional attitudes to themselves and to fellow humans but these same children are unable to solve simple tasks like those of Wimmer/ Perner (Cogn. 21). The Wimmer/ Perner results seem to show that the ability to pretend is not sufficient to really allow kk. to attribute untrue forms of belief.

Scenario.

Given.- A group of children. (29) of three years.

a. One shows a familiar candy box (Smarties) and asks .

Asked **-** to say what it contains.

Solution.-All claim "Smarties! --

b. ***Given.--*** Then one shows that that box actually (in reality) contains a pencil. Whereupon one closes it with the pencil inside.

Asked **--1** . Do ye remember what that box contains?

2. What did ye think the box contained when ye first saw it?

3. What do ye think the other children would think is in that box if they saw it as it is now, is, closed?

E.O. COGN. 27.

Solution.-- 16/29 cannot predict the untrue beliefs of their comrades ("The box contains Smarties"), while the children who can (13/29) are older than 3.5.

9/16, can correctly say that they believed the box contained Smarties and were thus mistaken, but when asked what their companions would say was in fact in the box, they replied "A pencil." -- Which is curious.

Although children. of 3 can formulate untrue belief, they are unable to say from where that untrue belief comes.

The scope according to Leslie.

1. The theoretical scope specific to the fact of a group of children. who, although realizing their own untrue belief, do not succeed in making a prediction (in their comrades), deserves all attention. Realizing one's own untrue belief does not necessarily lead a child to predict that the same untrue belief will occur in others in the same situation.

2. Even greater bearing can be attributed to the fact that this does not prevent a child from confidently predicting in another a belief which, if that belief became a fact, would be simply miraculous. Curiously: the belief in the miraculous is something that presents itself as miraculous outside the causal order.

Note.-- The causal order Leslie is talking about is apparently physical causality. Which again betrays the influence of physical thinking that sees causal relationships only in physical areas. Children are apparently not ready for that yet.

Ready decision on functional thinking.

What Children under 4 lack is an understanding of the relationships between
a. that which causes faith (of which faith is a function) and that faith itself and
b. between faith and what causes that faith (which betrays the role of faith).

Relations between **a.** the world and mental states, **b.** mental states among themselves, and **c.** mental states and the world are not yet ready for that age.

In other words, they do not have a theory of mind. The functional, the causal, is not yet ready.

E.O. COGN. 28.

Note: Leslie does not mean that Children of less than 4 do not exhibit knowledge of causality in the world. On the contrary: it is a known fact that very early, they have it.

What they lack is an understanding of the relations between the causal order of the world and the mental states.-- To attribute mental states -- to interpret ("interpret") fellow men and oneself as intentional beings -- is for them still separate from the capacity to see them as realities capable of causing actions or events in the world. For the time being, that capacity only comes through in the act of pretending.

Leslie relies on it: that ability is not yet part of a causal theory concerning the mental as the psychology of common sense is (according to folk psychological theory) in adults.

P. Angel.

One will reply that Leslie is presupposing rather than strictly proving the existence of such a theory of causation in the older children and its non-existence in the younger and autistic children.

Note.-- Another psychologist (C.*W. Johnson, Theory of Mind and the structure of Conscious Experience*, in: *J. Astington et al, eds., Developing Theories of Mind*, Cambridge Univ. Press, Cambridge, 1988, 47/6-; however, says:

"Why not thereby state that the children. lack an ability to project their subjective states and simulate them (live in them)? ". He takes as his starting point the conceptions (projectivist conceptions) such as those of Goldman and others.

Note.-- Typical of the strongly physicalist mentality that after all these "reflections" Engel briefly mentions Ludw. Wittgenstein who made a distinction between a psychological reason and a physical cause. A reason for action is not a purely physical cause just as a melody can be a cause of an action.

And what's more, an unconscious motive is even different from a conscious motive (motive).

One sinks in cognitivism too much into "all that physical" (as someone once said) to dwell on all the shades that have long been evident in non-principal physical mentalities.

E.O. COGN. 29.

People's psychology (cognitivistically framed). (29/35)

Bibl. sample: *Pascal Engel, Introduction à la philosophie de l'esprit*, Paris, 1994-2, 49/70 (*Sauver la croyance*), (Save the belief).

I.-- ***The basic axioms.***

We begin with an anecdote.

When Mathilde brings her employers a basket of apples from the orchard, they set about eating them the folk way: they don't peel them. But Mathilde - to the amazement of her employers - peels her apple with great precision. Her employer tells them that she must be extremely careful.

Mathilde replies that when she was picking, she later dropped one apple in the manure, but can't remember which one exactly. That is why she proceeds with such care.

Engel refers here to *Caumery et Pichou, L'enfance de Bécassine*, (The childhood of Bécassine,), Paris, 1935.

Cognitivist paraphrase (restatement).

Pointed out from mind-philosophical presuppositions, it reads as follows.

1. Employer and employer "believe" (*note:* are convinced) that the apples are edible.

2. They "desire" to eat them.

3. They 'desire' to appear as popular as those who find work with them, when eating e.g. an apple and 'expect' the same from their employees.

4. They "believe" that by eating their apples with great relish, their cravings are satisfied.

5. So they feast on those apples with great relish.

6. Mathilde "knows" that an apple has fallen into the manure.

7. She "longs" to eat an apple.

8. But she does not "wish" to play a contaminated apple inside.

9. She 'believes' that by peeling her apple she will satisfy her 'desire'.

10. So she peels her apple before eating it.

11. Her employers do not 'know' what it is about and are thus 'surprised'. Whereupon, upon learning of Mathilde's reasons, they are 'annoyed'.

Behold the "translation" into cognitivism!

Engel thinks that this mode of formulation “strikes us as ridiculous” because of the superfluity in it. To understand the anecdote is to grasp precisely this entire sequence and connection of “desire, believe, expect, know, be surprised, etc.” These connections “explain” - causally. - the behavior of the acting persons. For we are so familiar with such a form of ‘explanation’ that it is taken for granted.

Also: with many current sages, this mode of interpretation is called “folk psychology” (Eng: Folk Psychology; Fr.: Psychologie popular or also “psychology of the common mind” (Eng.: Commonsense Psychology; Fr.: psychologie du sens commun). Folk expressed: the psychology of the common people. At least those with common sense.

If we could not attribute faith, desire, etc. to the acting persons, we would not even understand the anecdote.

Some among those forms of belief and desire etc.-such as, for example, the desire to appear as popular as possible as one’s employees-are more “complicated” than others and involve “complicated” interaction and communication with other forms of belief and social attitudes (*note:* they are functional).

But, even if we did not grasp the contents of the equal intentional or mental phenomena, we would still attempt to “explain” the behavior of the acting persons causally in intentional (mental) terms.-- *note*.-- I.e. in terms of physics (and biology).

An unspoken system of interpretation.

Stories that depict the actions of acting persons we understand so easily because there is an implicit interpretive system at work in us that “explains” their mental lives and their reasons for action.

Without explicit references to physical or biological laws or generalizations. Purely mental or intentional.

For the umpteenth time we run up against “the notorious blind spot” of cognitivism which tries to “explain” mental life from physics and biology, from sciences which never talk about it: mental phenomena are at best only mentioned in passing, certainly in physics, but also in biology. This explains the peculiar approaches of cognitivists.

E.O. COGN. 31.

The basic prepositions.

Engel summarizes them as follows.

a.1. Folk psychology explains behavior (of fellow humans) by attributing mental (intentional) states (processes, properties) including their contents,--especially propositional attitudes (as e.g., belief, wish, fear, desire, etc.), (interpreting their) behavior).

As a reminder, "X believes, fears, wishes, wants etc. m. that this apple is edible" (mental states x propositions).

Semantically testable.

That propositional attitudes have a content means that this content is semantically testable. In other words, they are accompanied by truth conditions.-- For example, "The belief that this apple is edible is true insofar as (if and only if) indeed this apple is edible."

Note.-- What checking (testing) implies. -- Reference should be made *to L. Horsten, Truth and semantic paradoxes*, in: *Our Alma Mater* 50 (1996): 2 (May), 239/ 268. Horsten, in the mentality of logistics (which prevails at the very heart of cognitivism), defines truth in terms of Tarski equivalences: "An apple is tastier than a pear than and only if 'an apple is tastier than a pear' is true." He calls this insight of Alfred Tarski "genius" and the separation between the "prehistory" (sic) on truth definition and "the modern theories of truth.

a.2. ***Premise*** - actually: axiom - is that propositional attitudes have causal effects

a/ on other attitudes, such as e.g. "the belief that, because this apple is edible, this belief can 'produce' the desire to eat this apple," and

b/ on the behavior such as e.g. the act of actually eating this apple,

b. ***Laws/ generalizations***.

The premise is that such propositional attitudes have their basis (*note:* deeper reason) in true laws or at least in generalizations such that they explain and presuppose behavior. This "to a great extent" because the generalizations in question are true "mutatis mutandis" (with the changes necessary for application in another case; in other words: rule with exceptions).

E.g., "If X desires to eat an apple and if this apple is edible, then X will eat this apple unless some, other belief - the apple is soiled e.g. - plays a role (function) and inhibits."

E.O. COGN. 32.

II.-- ***The basic axioms : for and against***.

Engel outlines as follows.

Given-- Even though the laws and generalizations of folk psychology are unsubtle and approximate, they work, in everyday life, extremely well.

Asked -- How to interpret this fact, -- especially from a cognitivist standpoint?

Solution.-- Opinions are very divided.

1. Some philosophers believe that these axiomata "work" in that they are the axiomata of a "theory" that is true as a whole.-- More to the point, they argue that professional scientific psychology -- whatever form it will take -- will confirm them as well as the explanatory schema that goes along with them.

2. On the contrary, other philosophers believe that folk psychology is false. In particular: that there is a whole series of behaviors that it cannot explain. In other words : it is a 'theory' but a false one. Immediately, a professional psychology must drop its explanatory schema.

3. Still other thinkers argue that while the fact that folk psychology "works" (is useful) is an undeniable fact, this does not imply that it is a valid or unvalid professional psychology. Admittedly successful it does not represent truth.

Engel examines the three opinions in the following pages. In particular, he pays attention to the concept of faith, which one usually refers to as the central concept of folk psychology. Its analysis therefore urges itself upon us.

The many, often contradictory, opinions reveal a first-rate problem of a methodological nature, viz: "What is the nature and mode of being of explanations in the behavioral sciences and particularly in cognitive psychology? ".

Specifically, "Should such explanations appeal to the notion of semantic content" of propositional attitudes (including, first and foremost, "faith.") Hence the title of the chapter; "*Sauver la croyance*." To rescue the belief, seen as a whole: the totality of beliefs, the mentality, peculiar to popular psychology, from the destructive grip of its demolishers.

Note.-- 'Belief' in this context is not the running concept that is "assent to uncertain representations"! It is "conviction.

E.O. COGN. 33.

Wittgensteinism.

Bibl. sample: *P. Engel, Introduction à la philosophie de l'esprit*, Paris 1994-2, 24s..

One of the sources of the cognitivist problem was Ludwig Wittgenstein (1889/1951).

This states that the vocabulary (e.g. of folk psychology) talks about 'reasons' for our actions. But this vocabulary does not speak of "causes"! To confuse the two is to make a mistake about 'category' (classification) - a grammatical error.

1. ***Logical connections.***

Wittgenstein's reasoning.-

Prephrase 1.-- If the reasons were the causes of the acts, this presupposes that the reason (cause) is separable from the act (effect).-

Prephrase 2.-- Well, one cannot describe the reason for behaviors without including the act associated with it and its result.-- For example, "I want to do A." The description mentions the act A! In other words, "I want" is "I want the act and its effect".

Postphrase.-- So there is a necessary and inseparable "connection" between the reason and the act.-- Well, NZ is contradictory to VZ 1.

To which Don. Davidson: the description of the reasons ("Daisy wishes to explore wet nature" or "She believes it is going to rain") may be understandably one with the description of the act but this does not imply that the events (represented in those descriptions), are not separable.

2. ***Laws***.

If the reasons were real causes, this would preface laws prohibiting verbal descriptions of acts with the connections of those acts.

Reason: any causal explanation is axiomatically a nomological (law-preserving) explanation.

To which Don. Davidson: that is true but that such a thing implies that our ordinary, folk psychological explanations would not be causal is false: "Anneke 's ball made the window crack."

While there is no 'law' that says : "All (Anneke's) balls make windows crack", the statement is indeed causal : it is Anneke's ball that makes the window crack! But then without a 'law'.

Note.-- The law ("All balls make windows burst") is true except where it is not (rule with exceptions).

E.O. COGN. 34.

Ryle.

Bibl. sample: *J.-G. Rossip. Gilbert Ryle* (1900/1976).

A second source of the cognitivist problem was Ryle's philosophy, Ryle was a professor of metaphysics at Oxford University from 1945 to 1968. He was director of the revue Mind from 1947 to 1971. Wittgenstein influenced him very profoundly. Engel characterizes him as a "logical behaviorist."

A scenario.

He illustrated his entire philosophy ("metaphysics") as follows.

A stranger visits Oxford, visits Christ Church College, Bodleian Library and a number of administrative buildings. His question, "And where is the university now? "

Explanation: the university is all that thou hast seen so far as it is organized.-- His error and the nonsense that ensued consists in his speaking of the university as if it were a member of the class of which Christ Church College, Bodleian Library, etc. are but members. He ranked under the same logical type (class) an organization (the univ.) and its locatable individual parts.

The mistake.

All philosophy, according to Ryle, is full of such category confusions, and the conceptual analysis he advocates seeks to eliminate, indeed prevent, such type confusions and the nonsense associated with them.

On folk psychology.

To pronounce a mental predicate of someone ("He believes. She desires. People suffer pain") is not to state a mental event or a mental episode allegedly intended in the proposition but to refer to (essentially behavioral) facts that define the statement.

Against Cartesian dualism (and interactionism "mind/body"), Ryle argues that folk psychological explanations are not causal but conceptual.

In Wittgenstein's wake, Ryle said that folk psychological explanations indicate reasons but not causes of behavior. By what? Because of the logical (conceptual) connection "reasons/actions".

Moreover, folk psychology is largely a priori and non-revisable (not based on "facts"). Consequence: there is nothing scientific about it. Descartes with his fictions assumed just this as a basis.

E.O. COGN. 35.

Fodor.

Bibl. sample: *P. Engel, Introduction a la philosophie de l'esprit*, Paris 1994-2, 52ss..

Among other things, known for his *The Language of Thought*, M. I.T. Press, 1975. Engel characterizes Fodor as a "representationist. Fodor takes a stand against Wittgenstein and Ryle. He argues: folk psychology is to a large extent a correct theory. And the reasons for behavior are outright causes! And everything is based on legitimate generalizations.

1. *Semantic content.*

"For the reason of her mother's death, Natacha was saddened". Propositional attitudes are representations, representations, with a content. Therefore, they are not yet "true. Not yet a strict theory. What makes them 'true', according to Fodor, is when the truth inherent in the representation becomes the object of an elaborated cognitive theory, of which folk psychology is a beginning.

2. *Science.*

Earth science, psychology e.g. have an appropriate vocabulary. They are "special" sciences because their laws apply only within descriptions formulated within their vocabulary (*J. Fodor, Special Science*, in: *Synthesis* 28). But physics is not such a special science because it is the science to which, axiomatically, the vocabularies of the other sciences must be reduced. In other words, it is basic science.

3. *Generalizations "ceteris paribus".*

In the special sciences, one generalizes with reservations (rule with exceptions).

Geology: "Rivers with meanders exhibit strong erosion of its higher bank" is true but including exceptions (so : "unless some climatic or geological condition mitigates this").

Note: logistic a non-event reasoning.

Psychologically, "An envious wife watches her husband as soon as she suspects he is cheating on her" is true "unless she is amoral or cynical."

Note.-- How many just caveats so must be added in order for the sentence to be generally true is impossible to work out.

Population psychology as semantic content containing, causally explaining and relying on legitimate generalizations is therefore a protoscience

One question, "How can such representations with contents be causal if all causation is physical? ". Fodor has his own theory about this.

E.O. COGN. 36.

Mental causality.

Bibl. sample: *P. Engel, Introduction à la philosophie de l'esprit*, Paris 1994-2, 19/47 (*Causes mentales*).

O.c., 21.-- Most cognitivist thinkers reject dualistic interactionism. I.e.: there is no such thing as a mental thing that causes physicality. They are simply materialists.

Epiphenomenism.

Engel accuses most thinkers of "epiphenomenism.

'Epiphenomenon' means "the mental conceived as a mere accompanying phenomenon of matter". According to *O. Houdé et al., éds., Vocabulaire de sciences cognitives*, Paris, 1998, 161s., 'epiphenomenism' means the theory that states that "mental events do not exert any necessary influence and are therefore only 'epiphenomena' with respect to the physical events that cause them.

The difficulties,-- Epiphenomenism encounters two problems.

1. ***It doesn't frame with folk psychology***.

What is the point of acknowledging the fact, the existence, of mental phenomena if it is only to deny all causality in them? Even if we are prepared to state that mind and brain coincide, we hesitate to state that mental phenomena (states, processes, properties) are identical with physical phenomena (states, processes, properties).

In particular, in this hypothesis, are we obliged to assert that our desires, our beliefs, etc. do not cause our actions and, in particular, our bodily movements? Are then our mental phenomena of causation ineffective or epiphenomenal, if only physical and neurophysiological phenomena of causation are effective?

2. ***It does not frame evolution.***

Our mind has evolved in the course of biological evolution. o.g. natural selection. Then it must also have contributed to the survival of our species as causal. More so: it is not so much our mind that has evolved, but the genes especially. So that one can wonder if our mind has exerted even the slightest causal influence on our genes.

Thus literally P. Engel.-- Yet let us now turn to the distinguishable theories, which expose the disagreements of the "scholars.

E.O. COGN. 37.

Dualism.

Bibl. sample: *M. Kistler, Dualism/monism*, in: O. *Houdé et al., eds., Vocabulaire de sciences cognitives*, Paris, 1998, 148s..-- In metaphysics, "monism" is called that theory which reduces all that is (total reality) to, makes it arise from, explains from precisely one reality or precisely one type of reality.

Real materialism is thus a monism : only matter is real. "The existence of mind is one of the greatest challenges to monism (*note:* Kistler confuses monism with materialism)." Thus literally Kistler.

For the dualist, body (matter) and mind are two radically different realities which are also equally fundamental. R. Descartes counts in Kistler's eyes as the strongest dualist, because according to Descartes they exist independently of each other, because there are bodies without spirit and there is spirit without a body.

However, Kistler does admit that the materialist monist must argue that as far as phenomena are concerned, phenomena, that which immediately shows itself in experience, mental phenomena differ from any physical reality or property. More : it seems difficult to reduce mental phenomena to or to explain them from physical data.

According to Kistler, today both Cartesian dualism and the extreme forms of physicalist monism, i.e. logical behaviorism (G. Ryle) and identity theory (J. Smart; D. Armstrong) that identifies psychically and physically, are seen as insufficient.

According to P. *Engel, Introduction à la philosophie de l' esprit*, Paris, 1994-2, 20s., dualism posits two axioms:

a. mental data is distinguishable from physical;

b. mental data operate causally and are therefore not epiphenomena.

This, of course, is very much at odds with the axiom that says that "physical and only physical data cause actions (including physical and physical movements)."

Note **--** This is the problem of interactionism: how do consciousness (intentionality, mental phenomena) and mere physical data work and interact?

E.O. COGN. 38.

Physicalism.

Bibl. sample: *P. Engel, Introduction à la philosophie de l' esprit*, Paris, 1994-2, 19/22 (*Les dilemmes du physicaliste*), (The dilemmas of the physicalist).

The difficulties of epiphenomenism (folk psychology; evolution) still seem to Engel to be most easily solved by putting physicalism first as an axiom. I.e. by identifying mental with the physical phenomena. In that hypothesis, there are only physical data and, beyond that, nothing -- including nothing mental. All that is mental is an anomaly.

Criticism.

But, even in this case, how do we deny that there are conscious experiences? That our beliefs, our desires, the acts of our will and so on cause our actions and particularly our physical movements?

Cognitivism.

According to Engel, cognitivist thinking revolves around three axioms.

a.1. Mental properties and facts are distinguishable from physical properties and facts.

a.2. Mental properties and facts act causally and are at once not epiphenomena.

b. Only physical properties and facts act causally, i.e. they alone are the sufficient reason or ground of the occurrence of physical acts (e.g. movements).

The first axiom radically contradicts the third. In other words: there is contradiction.

Angel.

If physicalism accepts a.1. and a.2 while taking b seriously, then it seems that it must reject a.1 (the distinctness of the mental and the physical).

In other words, physical thinking can explain causation by mental phenomena but only by denying from it any reality of its own outside the physical one.

The only solution involves epiphenomenism.

Indeed: if physicalism consists in designating only the physically determinable as real, then all that is non-natural is illusion. But with such axioms we find ourselves in the midst of ontology, i.e. the theory of all that is real in so far as it is real.

E.O. COGN. 39.

Logical behaviorism.

Bibl. sample: *P. Engel, Introduction à la philosophie de l' esprit*, Paris, 1994-2, 22/25.

-- G. Ryle, deconstructor of metaphysics, naturally deconstructs traditional dualism (not just Descartes').

Dispositions.

Mental terms are not 'things' (*note:* Ryle's interpretation of the reality type of conscious phenomena) but dispositions. For example, the fragility of a glass can be expressed in terms of 'counterfactual' (*op.:* unreal) conditional sentences. Thus: "If this glass underwent a severe impact, it would break".

Note.-- This is different from claiming, "If this glass undergoes an impact, it will break" (called 'realis', real condition in the tradition).

Disposition is not yet an inner state.

If an object exhibits a dispositional property, this does not yet imply that that object comprises an inner state but only that it exhibits, in well-defined conditions, a well-defined behavior.

Ryle is a behaviorist in a radical way. Mental states are only dispositional states of behavior. Nothing more. They have no reality of their own.

Language analytic definition.

Ryle as a (language) analytic thinker defines mental phenomena purely in behavioral terms.

Example.

Daisy believes (her mental disposition) that it will rain ("It will rain" is true) if and only if:

1. the conditions A were a fact (*note:* contrafactual conditionalis), then Daisy would take her cute little rainmaker,

2. if conditions B were a fact, she would explore the sprinkled nature,

3. if conditions C were a fact, she would sing a rain song, e.d.m..

Thus Ryle reduces Daisy's belief (a mental phenomenon) to circumstances that cause her behavior. According to Ryle, by the way, the list of "if "s (unreal circumstances) is open : there is not precisely one unreal circumstance but a multiplicity that reveals the content of Daisy's belief that it is going to rain. In fact, that content is nothing more!

Thus Ryle, as a logical behaviorist, seeks to define mental terms exhaustively in terms of statements about possible behavior. Immediately, he materialistically rethinks the relationship "mind (mental life) / matter (physical fact).

E.O. COGN. 40.

Criticism.

Engel criticizes Ryle's reasoning scheme.

1. Such definitions are tautological (they say the same thing in the saying as in the subject, though it looks different). One cannot further define the appropriate behaviors except by appealing to other mental terms. But how to further define those other mental terms which refer to mental states without again appealing to the mental state one wants to define (circular reasoning)?

Daisy will undoubtedly only believe it is going to rain if (because) she believes it is going to rain

Note -- Engel still remains too much within Ryle's line of thinking with this.

2. If mental terms refer to behavioral dispositions and are thus only articulable in behaviorist terms, then they cannot possibly be the causes of that behavior.

Engel hereby appeals to the common sense in the matter (we could also say: to the immediate fact or phenomenon), i.e. to a folk psychology.

Thus: "If circumstances A etc. were a fact, then (= decision of her will) Daisy would take her cute little rain shield, etc. because Daisy believes it will rain".

Note -- Clarity: belief arises from experience (the sky looks gray and the first drops fall: "It's going to rain"); the act of will (Daisy's decision) arises from her belief that it will rain.

This is how ordinary people, with their common sense, experience the chain of causality. Mental and physical run in tandem or one after the other! But the mental is not reduced to a disposition of behavior (a pure part of behavior) and is thus not a pure epiphenomenon of behavior : it comes into its own as a different than physical mode of influence.

Precisely because cognitivism at all costs minimizes, indeed eliminates, the mental, its language, in logistic terms even then, acquires such a' peculiar - unnatural, artificial - appearance.

The folk psychological logic logicians call "natural logic" (with its semantics), thereby knowingly insinuating that logistics is an artificial logic. Artificiality which may be in place in mathematics and related but which more often than not comes across as artificial in everyday language. As in Ryle's reasoning.

E.O. COGN. 41.

The "type/type" identity theory.

Bibl. sample: *P. Engel, Introduction à la philosophie de l' esprit*, Paris 1994-2, 25/29.

If one rejects dualism and logical-behaviorism, then the simplest solution seems to be to somehow identify mind with brain (brains). Thus Engel.

Bibl. sample:

-- *J. J. C. Smart, Sensations and Brain Processes*, in: *Philosphical Review* lxviii 141/156 (1919);

-- *D. Armstrong, A Materialist Theory of Mind*, London, 1968.

1.1. ***Theoretical reduction.***

That one so identifies is the result of a reduction of some types of realities - e.g., what the common sense calls "water" or "heat" - to other types of reality - $_2$HO (water) or violent molecule movement (heat) - .

1.2. ***Factual situation.***

That similar reductions of mental to physical, resp. neuroscientific realities have not yet been (universally acceptable) proven does not bother the identity theorists : they merely present a model of what such reductions would be (counterfactual utterance).

2. ***Empiricism.***

However, if these reductions were ever proven, they would amount to empirical, i.e., reductions established in the facts. Not simply as the logical-behaviorists advocate, based on (language) analytical definitions (of the meanings of mental terms).

Note -- Engel's critique begins by putting forward the notion of strict identity. This is defined as a symmetric (reciprocal) relation: "If a = b, then b = a". In which the terms are equivalent. This while the "type/type" - theory apparently considers the physical, resp. neurophysiological term as an explanation more decisive, i.e. unequal, than the mental one.

After all, true to the deep physicalism on causality, identity theory states that however causation is only physically, resp. neurophysiologically possible.

In other words: instead of "a = b" it is "a =/ b". (a is not equal to b)

Okay but then what is it about the concept of strict identity?

Answer: it is not about that at all! Because the identity referred to here implies the submission, the subordination of one of the terms of 'identity' to the other.

E.O. COGN. 42.

Once again, the identity relationship.

The axiom of the indistinguishability of all things identical ("Leibniz's law,") governs this relation: (Vx)(Vy)(x = y) --> (Fx = Fy). In colloquial language : "For all x and y (it holds that) if x = y, then all properties of x are identical with all properties of y".

A mental property (// water) - such as : "I see a red color" or "She thinks of something beautiful" - is impossible in that way (all = all) identical with a physical property (// H_2O) of the brain (brains). For the states of the brain are (in themselves) neither red nor something beautiful. And conversely the spatial, chemical, electrical brain properties cannot be attributed to mental properties, processes, states. Reason they are distinct beings! One is not the other!

Way out.

The reductionist materialist attempts to refute twofold.

a. Not the content of mental states is identified with a brain state but rather the fact (the event) that mental states contain that content is identified with (a type of) a physical event.

b. Relying on the opposition pair "Sinn (intensity)/ Bedeutung (extension, reference)" by G. Frege, the identity theorist says: not the intensity is identified but the extension.

As an aside, the two intensions "noblewoman Mathilde d' Udekem d' Acoz" and "the fiancée of Prince Philip" refer to (i.e., refer to) the same woman (her extension).

In passing also: do not confuse with the scholastic pair "concept content/ concept size" (where two contents refer to two sizes).

Identity Theory Application:

"Although my pain is an activation of C-fibers, it does not show itself as such (i.e. with the phenomenal and qualitative traits)" Fregian: "My pain has a (mental) intensity (Sinn) but that is something different from the reference (Bedeutung), that to which the intensity refers (the lived pain, is not but refers to the physical state that it is in fact (physically speaking)."

Note.-- Even those who are not at home in frigid theory feel that the identity theorist is here confusing two domains, the linguistic of names for the same thing and the mental/physical in their relation.

E.O. COGN. 43.

The Critique of S. Kripke.

In his *Naming and Necessity*, Oxford, 1980.-- Simplified, this criticism boils down to this.

1. Premise is a theorem of modal logistics (which talks about necessary/non-necessary/necessary-not) that reads as follows : "Identity statements, if true, are necessarily true".

Application; "If pain sensation is the activation of C-fibers, then it is this necessarily".

Note.-- If it belongs to the definition of pain sensation to be "activation of C-fibers", then in Kantian terms this is an 'analytic' judgment, i.e. a judgment supported on the analysis of what is given by definition and thus a-priori. Which always constitutes a necessity.

This goes against reductive identity thinking which holds that such a proposition (judgment) is empirical (and in Kantian terms a 'synthetic' judgment, i.e. based on something outside the definition of the subject of the judgment). In other words : one can only make the judgment if one has further information.

2. ***More so:***

the immediate experience (one can call it a kind of Cartesian "intuition") is such that the sensation of pain, eventual exists without the actual existence of a corresponding physical state (i.e. in this case: activation of C-fibers).

Decision.

"My pain feeling is essentially 'my pain feeling' and all that is detectable in it is only pain feeling"

Note.-- The feeling of pain, as feeling pain, i.e. as inner experience of what is immediately given, viz. that feeling of pain, the felt pain for as far as felt pain, does exceed itself somewhat by the question of its cause but is in the first instance the feeling of the pain and only through further information (as synthetic judgment) the cause of it which shows itself through the felt. pain as the demanded (and not the given).

That mental property, pain sensation, is necessarily distinguishable from, e.g., a physical property (the cause of the pain).

Engel considers the direct experience of the feeling of pain that identifies it with what is experienced as the feeling of pain, "the least arguable premise" of Kripke's critique.-- In passing : it is about pure husserlian phenomenology that distinguishes given from non-given.

E.O. COGN. 44.

Angel's critical comment.

She situates herself on the extension of the previous critique. Her starting point: the "intuition" evoked by Kripke. A person could have felt (unreal) pain without the stimulation of the C-fibers.

After all, one can imagine - in a dualistic way the following: a mental state that is entirely separate from the body, from any physical state. For there is no reason to believe that individuals who experience the same mental state are necessarily in the same physical state. In other words, it is quite conceivable that two beings are in the same mental state but in such a way that it comes about as a result of physical states which differ from one individual to another.

The "type/type" - materialism may assume that identical mental states - e.g. pain sensations - are caused differently in the neurophysiology of different animal species : within species there is identity but from species to species there is not.

Mental causality.

Even within this latter hypothesis, there is still the problem of mental causality.

a. According to the theory of identity and its axioms, there is no problem because mental properties are physical properties: ipso facto mental states are causal in one with the physical.

b. But as an "explanation," this materialistic response poses problems of causation.

Scenario.

GG.-- Jan gets up at night to drink a glass of water; he goes to the kitchen.

b.1. The folk psychological explanation.-- He poses because he is thirsty (experience), wishes to drink and believes that water is available in the kitchen (propositional attitude).

b.2. Identity-theoretic explanation. - What John does (including mentally moved : he consciously feels thirsty) are neurophysiological events in John's brain. However, there are two causal series: one expressed in mental terms, the other in physical terms. Yet according to identity theory, these two are identical.

Note.-- One sees that, on the one hand, one constantly assumes conscious processes - how would John know he is thirsty if he had no consciousness? -; On the other hand one tries to absorb them!

But that's where the problem arises.-- Angel sees it as follows.

1. *The folk psychological explanation.*

Jan's visit to the kitchen at night is explained on the basis of his known properties (summarized: his mental states and their regularities (feeling thirsty/ longing for quenching/ getting up/ going to the kitchen, etc.),--not on the basis of unknown properties (e.g., the physiology of being thirsty).-- These are presumed when Jan wonders, e.g., why he is so thirsty this night.

2. *Explicit Exclusion.*

Bibl. sample: *Jaegwon Kim, Exclusion and Mental Causation*, in: *Villaneuva, E, ed., Information, Semantics and Value*, Oxford, 1990, 39/43.

By "explicit exclusion" one understands the fact that, given axioms, one and the same phenomenon cannot lead to more than one complete and independent explanations. In other words: one sees, one wants to see but seeing precisely one explanation.

Angel.

For a second set of causal events - the physiological one (which, to begin with, is unknown and not ready for consciousness) - to be able to really explain anything at all, the relationship between this physical set and the mental set must first be already known.

Well, within the identity hypothesis, that relationship is called "identity" (they coincide).

But then a dilemma arises: either the mental series preserves its explanatory capacity (which the folk psychological theory clearly sees there endorses) or it does not.

The latter is the case because a-priori identity theory states that only the physical, resp. neurophysiological sequence of events/properties really explains. Thus, there can be no second explanation. Which in Kim's sense is "explicit exclusion" pleading.

In other words: the mental explanation is reduced to an epiphenomenal explanation: the feeling of thirst, the will to quench etc. d.m. of Jan 'accompany' (e.g. as a disposition of behavior) indeed the sequence of physical, resp. neurophysiological events but explain nothing.

Behold yet another epiphenomenism.

E.O. COGN. 46.

Doubling the explananda.

Bibl. sample: *P. Jacob, Causalite*, in: *O. Houdé et al, éds., Vocabulaire de sciences cognitives*, Paris, 1998: 70/72.-- The author represents physicalism. - 'Explananda' are "things to be explained".

1. *Situation*.

Physicalists argue that a person's mental states are in fact his brain states.-- As a result, they are faced with the problem of explicative exclusion (excluding other explanations). Thus : "Is not the content of intentional acts deprived of all causation by the underlying properties of the brain state? Are these properties sufficient to produce a bodily gesture? ".

Jacob sees two "strategies" for the physicalist to escape explicit exclusion :

a. functionalism and **b**. the doubling of explananda.

2. *Explananda doubling*.

Unlike a physical property, the content of e.g. my faith is not a brain property. It is an (from the point of view of the brain) external property that is a function of my 'historical' (my life history concerning) contacts with the environment.

Scenario.

A dispensing machine dispenses a drink when a coin is inserted.

The coin possesses **a.** internal (physical) and **b.** external (in this case: economic or money value) properties. Now, for a physicalist, can its monetary value cause anything?

The release of the drink is caused only by its physical properties. The reason, however, for that release is the monetary value of the coin. Because there is a reliable correlation between the monetary value and the physical properties of the piece. This explains why with every insertion the device emits liquor. The physical gesture is only part of the total behavior.

My mental contribution (my belief does not explain my approach but only the structure of my behavior, which includes the regular connection "brain states/ physical gesture". Behold one of the strategies (ways out, methods) by which the physicalist "saves" his axioms.

E.O. COGN. 47.

Functionalism.

Bibl. sample: *P. Engel, Introduction à la philosophie de l' esprit*, Paris 1994-2, 30/39.

Pioneering on functional thinking is *Hilary Putnam, Minds and Machines*, Cambridge Univ. Pr., Cambridge, 1960-1.

The line of thought exhibits many variants. Engel typifies the main ones.

1. ***Behaviorism.***

The organism is a system with a black box : its behavior ("output") depends or ("is function of") the stimuli ("input") and its own state.-- Criticism: too simple!

2. *Functionalism*.

Within the black box the functionalist situates a set of other black boxes and a set of intermediate states: every internal state is a function of a. the input, the incoming, and b. its own state. The input comes both from the outside world and from other states (sub-boxes).

a. *Folk psychology.*

This one knows functionalism.-- Someone commits an act A because he believes that p, desires that q, and believes that by committing A he will work out that q.

But the fact that he believes that p is function of the fact that he experiences that r - or it occurs to him that t - , the fact that he desires that q depends (is function) of other desires and other mental states, etc., all these events complicate the act of doing A.

b. *Functional psychology.*

She argues that this set of states all taken together 1.a. plays a well-defined causal role (function), 1.b. plays a global role (function), b. in which one state affects the other that is function of it.

In other words - to exhibit a mental state is to play a causal role defined by the complex relations from state to state within the system.

Thus, memory (a function) can include long-range memory and short-range memory. These two interact with other partial functions (e.g., 'addresses'). Thus, one can analyze until one gets to the 'elementary' (not further decomposable) elements (functions) or, as *D. Dennett, Intentional Systems*, in: *Brainstorms*, M.I.T. Press, 1978, says "the stupid partial routines" are exposed.

Behold the core insight that in variants, is hinted at.

E.O. COGN. 48.

The concept of function. -- Engel discusses it two-fold.

a. *Logi(sti)c*

A computable algorithm.-- Cr. H. Putnam. This designates mental states as a Turing machine (a "device" that can calculate an algorithm with results). The computer is functionalism's metaphor for mental life.

b. *Teleological*.

'Teleology' is the bringing up of all that is there to (purpose and aim). Thus: the heart is there to turn the blood.

Both interpretations.

In both, a mechanism is provided that undergirds the function.-- In both, functionalism is relatively indifferent to the material or physical realization of that mechanism.

a. A Turing machine that describes an ordinator program may or may not be built into a device with electronic or other components. --

b. A combustion system e.g. (a lamp, a furnace and so on) may or may not be made of metal.

The decisive.

In both, it comes down to the 'abstracts' function that governs the phenomenon. Expressed in computer language : the 'software' (and not the hardware) is decisive.

The difference with identity theory.

1. That 'software; that fundamental mechanism, makes a certain distinction clear between identity theory and functionalism.-- The functional features -- that which e.g. makes a lamp fit to illuminate (its purposiveness) -- are distinguished from the physical features of that in which that function is embodied. Thus a lamp can be an electric lamp or a petroleum lamp in metal. That is the physical aspect. To both involve a mechanism that makes them fit to achieve a purpose, namely to illuminate (that would be the 'software' of the lamp). To use that metaphor for a moment.

2. In other words: a certain dualism (in the computer the duality "software (to) / hardware (machine)"; in the lamp "the illuminating / the device) is immediately present.

Materialism.

Most functionalists reduce mental functions (and its causal roles) to a set of functions and partial functions that are essentially physical. "Functionalism is indeed a materialism" (P. Engel; o.c., 32).

E.O. COGN. 49.

Anomic monism.

Bibl. sample: *P. Engel, Introduction à la philosophie de l' esprit*, Paris 1994-29 39/45.

-- *Don. Davidson, Essays on Action and Events*, Oxford Un Pr., 1980, has a telling title. Davidson is the main figure of this kind of materialism that passes as the least reductionist.

Ontology.

This is description of events (nominalism).- Davidson sees everywhere physical and mental "events" ("events"), i.e. singular phenomena.

An event can be described either in physical terms (then it is physical) or in mental terms (then it is mental). Mental: "Ilona believes the earth is round". Physical: "The earth is round".

Basic theory.--Two aspects: causal interaction and laws.

a.1. At least some events exhibit "causal interaction with physical events: a sound may cause hearing it; the intention to strike someone may cause physical movement.

a.2. Lawfulness.-- Where there is causation, there is lawfulness as David Hume, the illuminator, said, "Where there is causation, there is regularity": Events, if connected in the form of "cause/effect", are necessarily governed by strict laws (nomology). For Davidson, "strict" is that which physics knows to be laws.

b. Mental anomism.-- "A (= without). nomos (= law)". Strict laws that allow mental events to be explained and predicted do not exist (mental anomism).

In other words : strict psychological laws do not exist. Even psychophysical laws do not exist.-- The mental is holistic : a mental state implies many others.

Note.-- The listed axiomata seem to contain an inconsistency :

a.1. and a.2. involve the negation of b., while a.2. and b. negate a.1. and a.1. and b. negate a.2. Yet Davidson seems to want to "reconcile" them.

All in all, Davidson 's metaphysics is yet another variant of the trio of axioms mentioned above (Cogn. 38), which clearly involve contradiction.

E.O. COGN. 50.

Scenario.

"He went to the place of worship because he cared for his old aunt." - This sentence expresses a causal relationship between a mental event (attitude) and a physical event (bodily gesture)

Extension/intensity.

Such a relation is valid in whatever way one describes the events (extentionally). - But according to b (strict psychological laws do not exist), there is no lawful relation in the nature of "If all are at will (whether or not toward an old aunt) then invariably go to a place of worship." Such a statement is intensional (hits the name) and so it is not lawful.

Yet there is a law underpinning that singular causation (underlying structure) at the physical level, though we do not know the law in question.

Note.-- If we understand this correctly, then the connection is extensional and its explanation intensional.

Scenario.

I extend my hand to grasp a glass (physical event). That is caused by a neurophysiological event, although I can describe it as a mental event, -- e.g., "I wish to grasp the glass." But that description does not refer to causing the grasping: only the neurophysiological description refers to causing that physical gesture. In other words: the attitude "I wish to grasp" has not caused grasping. Attitudes are ineffective.

Final sum.

Anomic monism is an ontological monism: in a sense, only ("monos") physical events exist. As Davidson himself confesses, "It is a weak or minimal materialism

Yet a kind of irreducibility of the psychological and even the psychophysical states is maintained : in this sense it is not pure reductionism.

Epiphenomenism.

Angel for the umpteenth time establishes: mental events as mental cause nothing. Thus they are epiphenomenal. Even though mental events as "reasons" cause physical events, it is not as mental events (recordable in mental descriptions) but as physical or neurophysical events.

One sees Engel's main thesis becoming clearer following each variant of cognitive materialism: epiphenomenism.

E.O. COGN. 51.

Epilogue : Engel's stance.

Bibl. sample: *P. Engel, Introduction à la philosophie de l'esprit*, Paris 45/47 (*La pertinence causale des propriétés mentales*), (The causal relevance of mental properties).

Do we dwell rather extensively on someone's opinion that is founded on a thorough knowledge of cognitive materialism.

Main Theorem.

Physicalism, logical-behaviorism, identity theory, eliminative materialism (the name says it all), functionalism, anomic monism exhibit "a generalized syndrome peculiar to all materialistic interpretation of mind," i.e., epiphenomenism.

Unified Science.

It all boils down to an epistemological (science theoretic) problem which is not peculiar to psychology in its relation to physics. That problem arises after any science in its relation to physics, whether it is chemistry, biology, humanities.

Thesis.

Although physics is axiomatically ("en principe") the fundamental science ("la science fondamentale"), there is no reason to assume its causal explanations in the other sciences.

The origins of epiphenomenism.

An extravagant physicalism ("un physicalisme excessif") is the origin. Engel refers to *H. Mellor/ T. Crane, There is no Question of Physicalism*, in: *Mind* 99: 394, 185/206.

The main question.

"Are causal explanations articulated in intentional terms possible? ". Engel rejects eliminativism and reductionism. He sees two possibilities.

I.-- ***Once again Davidson.***

Fundamentally, Davidson's thesis reads, "Although everything in some sense takes place in a physical way, yet one can claim that, in terms of true causality, there are regularities that are formulable in intentional terms.

Even though Davidson rejects strict lawfulness in psychology, he still accepts counterfactual (counter-model articulation), (unreal) true generalizations in intentional terms. Thus: "If Inge had not believed that this is water, and had not wanted to drink, she would not have grabbed this glass." Such regularities are the basis of our singular statements when we explain actions by reasons.

E.O. COGN. 52.

Dual causality concept.

Thus, according to Engel, there are two types of causality : the intentional ("reasonable coherence within the action and outside it") and the physical (in passing: for Bertrand Russell, causality in nature was "a relic of a past epoch").

II.-- ***Davidson critical review.***

Davidson's view does not allow us to correctly interpret the relations between physical and psychological descriptions.

Way out.

The only way out is a form of functionalism which proposes an intermediate form of description between the intentional and the physical.-- In the materialistic interpretation, the functional is submerged in the physical: how, indeed, to interpret a mental datum - e.g. a belief, a wish, a fear, etc. - as a cause for explanation if the true cause is always of a physical nature?

Two gauges.

1. One may believe that the mentalist explanation functions in the form of a summary

2. but in such a way that the existence of the physical level (underlying in depth) is "indicated" without expressly articulating it, while expressing the mental aspect.

Scenario.

1. It is believed that a metal "conducts electricity."

2. But such that one exploits a dispositional property, namely, the cloud of free electrons in that metal (which make the conductive true).

In other words: even in physical speech that explains what is happening, Engel bumps up against those two gauges.

In doing so, the dispositional is not simply reduced to the physical.-- Analogously, Engel sees the psychological explanations that thus prompt to detect the mechanisms that underpin the intentional (underlying, subdoxastic or infra - intentional layer).

Yet Engel sees physicalism with its epiphenomenism showing up again and again.

One does not even know how one will uncover the underpinning layer of our beliefs and desires and so on. However, even if it were uncovered, our common sense explanations function perfectly.

In other words : Engel defends the practical value of folk psychology (with or without an understanding of its underpinnings).