

Seeing With the Two Systems of Thought—a Review of ‘Seeing Things As They Are: a Theory of Perception’ by John Searle (2015)(review revised 2019)

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ABSTRACT

As so often in philosophy, the title not only lays down the battle line but exposes the author’s biases and mistakes, since whether or not we can make sense of the language game ‘Seeing things as they are’ and whether it’s possible to have a ‘philosophical’ ‘theory of perception’ (which can only be about how the language of perception works), as opposed to a scientific one, which is a theory about how the brain works, are exactly the issues. This is classic Searle—superb and probably at least as good as anyone else can produce, but lacking a full understanding of the fundamental insights of the later Wittgenstein and with no grasp of the two systems of thought framework, which could have made it brilliant. As in his previous work, Searle largely avoids scientism but there are frequent lapses and he does not grasp that the issues are always about language games, a failing he shares with nearly everyone. After providing a framework consisting of a Table of Intentionality based on the two systems of thought and thinking and decision research, I give a detailed analysis of the book.

Those wishing a comprehensive up to date framework for human behavior from the modern two systems view may consult my book ‘The Logical Structure of Philosophy, Psychology, Mind and Language in Ludwig Wittgenstein and John Searle’ 2nd ed (2019). Those interested in more of my writings may see ‘Talking Monkeys--Philosophy, Psychology, Science, Religion and Politics on a Doomed Planet--Articles and Reviews 2006-2019 3rd ed (2019) and Suicidal Utopian Delusions in the 21st Century 4th ed (2019).

As with Wittgenstein (hereafter W), everything that Searle (hereafter S) writes is a treasure and it is wonderful that he remains sharp as he nears 80. Unlike most, even his early work is still relevant and he is working on several other books. I also suggest his 100 or so lectures and interviews on youtube, vimeo etc., which, though

inevitably a bit repetitious, contain many statements not in his writings. I have read almost all of his work, and listened to all the lectures, most of them 2 or 3 times. These are of special interest as (like Wittgenstein) he does not read from notes, and so each is unique and not a replica of a paper, and he is a superb extemporaneous speaker who mostly uses unpretentious language (both so different from most others). The recent lectures given at European Universities are superb, but don't miss the old ones such as the BBC lecture "A Changing Reality-the science of human behavior", which gives an excellent account of why the lawful repetitious causality of the brain's fast automatic, nonlinguistic system 1 (S1) is fundamentally different and not describable in the same way as the limitless complexity of reasons characterizing the slow deliberative, linguistic conscious system 2 (S2), which generates a combinatorial explosion not usually representable in a useful way by scientific laws. The dual system (S1, S2) method of describing thought used in this review, common to reasoning research for some 20 years now, is my own and not Searle's. Since I have recently written a 75p article analyzing Searle's work in comparison with that of Wittgenstein (The Logical Structure of Philosophy, Psychology, Mind and Language as Revealed by Ludwig Wittgenstein and John Searle) I will not repeat it and will concentrate on this book only.

First, let us remind ourselves of Wittgenstein's (W) fundamental discovery –that all truly 'philosophical' problems (i.e., those not solved by experiments or data gathering) are the same—confusions about how to use language in a particular context, and so all solutions are the same—looking at how language can be used in the context at issue so that its truth conditions (Conditions of Satisfaction or COS, a term not used by W and popularized principally by S) are clear. The basic problem is that one can say anything but one cannot mean (state clear COS for) any arbitrary utterance and meaning is only possible in a very specific context. Thus, W in his last masterpiece 'On Certainty' (OC) looks at perspicuous examples of the varying uses of the words 'know', 'doubt' and 'certain', often from his 3 typical perspectives of narrator, interlocutor and commentator, leaving the reader to decide the best use (clearest COS) of the sentences in each context. One can only describe the uses of related sentences and that's the end of it—no hidden depths, no metaphysical insights. There are no 'problems' of 'perception', 'consciousness', 'will', 'space', 'time' etc., but only the need to keep the use (COS) of these words clear. It is useful to keep in mind two comments by W that summarize scientism.

"The confusion and barrenness of psychology is not to be explained by calling it a "young science"; its state is not comparable with that of physics, for instance, in its

beginnings. (Rather with that of certain branches of mathematics. Set theory.) For in psychology there are experimental methods and conceptual confusion. (As in the other case, conceptual confusion and methods of proof). The existence of the experimental method makes us think we have the means of solving the problems that trouble us; though problem and method pass one another by." Wittgenstein (PI p.232)

"Philosophers constantly see the method of science before their eyes and are irresistibly tempted to ask and answer questions in the way science does. This tendency is the real source of metaphysics and leads the philosopher into complete darkness."(BBB p18).

More than most, S avoids scientism but there are frequent lapses which I have pointed out in my many reviews of his work and in spite of his being perhaps the best all-around philosopher since W, he does not fully grasp that it is all about language games, a failing he shares with nearly everyone.

As so often in philosophy, the title not only lays down the battle line but exposes the author's biases and mistakes, since whether or not we can make sense of the language game 'Seeing things as they are' and whether it's possible to have a 'philosophical' 'theory of perception', which can only be about how the language of perception works, as opposed to a scientific one, which is a theory about how the brain works, are exactly the issues. The subtitle (A theory of Perception) is likewise contentious (for Wittgensteinians at least) since W warned repeatedly against theorizing and even insisted it was impossible to produce theories about behavior, as everyone would agree with them—i.e., they would be truisms about our use of language. Anything that looks like a theory of higher order thought (mind, behavior) is really just a description of what we do, unless of course they are making the near universal mistake of giving a scientific theory of how the brain or the world works—a different kind of 'philosophy' entirely—i.e. 'Scientism'. Searle is well aware of this and has commented on it many times, insisting W is wrong about theories, but I don't think so. Only science has theories, i.e., propositions that can be shown true or false and often new evidence leads us to change or even abandon them, while philosophy proper (the elucidation in a given context of a language game describing our higher order behavior) will be obviously correct and not subject to revision as we all recognize it as true—i.e. as a correct use of language. But if S wants to call his generalizations about language use 'theories' that's fine, just so long as

we are not led astray. I have dealt with these issues at length in my other writings and in particular my review of Carruthers' 'The Opacity of Mind'.

It is very useful to read the little volume 'Neuroscience and Philosophy' where Searle, Dennett, and Bennett and Hacker have at one another over which language games should be played. Bennett and Hacker have given the most detailed exposition of these games in 'Philosophical Foundations of Neuroscience'(2003) which is continued in Hacker's recent 3 volumes on Human Nature.

W insisted that there are no new discoveries to be made in philosophy, nor explanations to be given, but only clear descriptions of behavior (language) in a particular context. Once one understands that all the problems are confusions about how language works, we are at peace and philosophy in W's sense has achieved its purpose. As W and S have noted, there is only one reality, so there are not multiple versions of the mind or life or the world that can meaningfully be given, and we can only communicate in our one public language. There cannot be a private language and any 'private inner thoughts' cannot have any role in our social life. It should also be very straightforward to solve philosophical problems in this sense. "Now if it is not the causal connections which we are concerned with, then the activities of the mind lie open before us." Wittgenstein "The Blue Book" p6 (1933). In our modern idiom, perception is the automatic, causally self-reflexive (Searle), rapid, true-only mental states or presentations (Searle) of System 1 (S1), while most of what we 'mean' by the 'mind' are the deliberate, slow, reasoned dispositions with public true or false representations (conditions of satisfaction-COS) of System 2 (S2).

Searle waits until p45 to present the most recent version of a table he has used before. I have been expanding it for some years and as I find it critical to understanding behavior, I begin by presenting its most recent version here. In accord with W's work and Searle's terminology, I categorize the representations of S2 as public Conditions of Satisfaction (COS) and in this sense the 'phenomena' of S1 such as perceptions do not have COS. In other writings Searle says they do, but as noted in my other reviews, I think it is then essential to refer to COS1 ("private" presentations) and COS2 (public representations). Likewise, I have changed his 'Direction of Fit' to 'Cause Originates From' and his 'Direction of Causation' to 'Causes Changes In'.

I suggest we can describe behavior more clearly by changing Searle's "impose conditions of satisfaction on conditions of satisfaction" to "relate mental states to

the world by moving muscles” —i.e., talking, writing and doing, and his “mind to world direction of fit” and “world to mind direction of fit” by “cause originates in the mind” and “cause originates in the world” S1 is only upwardly causal (world to mind) and contentless (lacking representations or information) while S2 has content and is downwardly causal (mind to world). I have adopted this terminology in the table.

After half a century in oblivion, the nature of consciousness is now the hottest topic in the behavioral sciences and philosophy. Beginning with the pioneering work of Ludwig Wittgenstein in the 1930’s (the Blue and Brown Books) to 1951, and from the 50’s to the present by his successors Searle, Moyal-Sharrock, Read, Hacker, Stern, Horwich, Winch, Finkelstein etc., I have created the following table as an heuristic for furthering this study. The rows show various aspects or ways of studying and the columns show the involuntary processes and voluntary behaviors comprising the two systems (dual processes) of the Logical Structure of Consciousness (LSC), which can also be regarded as the Logical Structure of Rationality (LSR-Searle), of behavior (LSB), of personality (LSP), of Mind (LSM), of language (LSL), of reality (LSOR), of Intentionality (LSI) -the classical philosophical term, the Descriptive Psychology of Consciousness (DPC) , the Descriptive Psychology of Thought (DPT) –or better, the Language of the Descriptive Psychology of Thought (LDPT), terms introduced here and in my other very recent writings.

I will make minimal comments here since those wishing further description may consult my articles and reviews of books by Wittgenstein, Searle and others on academia.edu, philpapers.org, researchgate.net, vixra.org and abbreviated versions on Amazon.

The ideas for this table originated in the work by Wittgenstein, a much simpler table by Searle, and correlates with extensive tables and graphs in the three recent books on Human Nature by P.M.S Hacker. The last 9 rows come principally from decision research by Johnathan St. B.T. Evans and colleagues as revised by myself.

(Involuntary –automated-Rules R1) Thinking(Cognition) (No gaps)

(Voluntary-deliberative- Rules R2) Willing (Volition)(3 gaps)

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	Disposition*	Emotion	Memory	Perception	Desire	PI**	IA***	Action/ Word
Cause Originates From****	World	World	World	World	Mind	Mind	Mind	Mind
Causes Changes In*****	None	Mind	Mind	Mind	None	World	World	World
Causally Self Reflexive*****	No	Yes	Yes	Yes	No	Yes	Yes	Yes
True or False (Testable)	Yes	T only	T only	T only	Yes	Yes	Yes	Yes
Public Conditions of Satisfaction	Yes	Yes/No	Yes/No	No	Yes/No	Yes	No	Yes
Describe A Mental State	No	Yes	Yes	Yes	No	No	Yes/No	Yes
Evolutionary Priority	5	4	2,3	1	5	3	2	2
Voluntary Content	Yes	No	No	No	No	Yes	Yes	Yes
Voluntary Initiation	Yes/No	No	Yes	No	Yes/No	Yes	Yes	Yes
Cognitive System*****	2	1	2/1	1	2 / 1	2	1	2
Change Intensity	No	Yes	Yes	Yes	Yes	No	No	No
Precise Duration	No	Yes	Yes	Yes	No	No	Yes	Yes
Time, Place (H+N, T+T)*****	TT	HN	HN	HN	TT	TT	HN	HN
Special Quality	No	Yes	No	Yes	No	No	No	No
Localized in Body	No	No	No	Yes	No	No	No	Yes
Bodily Expressions	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Self Contradictions	No	Yes	No	No	Yes	No	No	No
Needs a Self	Yes	Yes/No	No	No	Yes	No	No	No
Needs Language	Yes	No	No	No	No	No	No	Yes/No

FROM DECISION RESEARCH

	Disposition*	Emotion	Memory	Perception	Desire	PI**	IA***	Action/ Word
Subliminal Effects	No	Yes/No	Yes	Yes	No	No	No	Yes/No
Associative/ Rule Based	RB	A/RB	A	A	A/RB	RB	RB	RB
Context Dependent/ Abstract	A	CD/A	CD	CD	CD/A	A	CD/A	CD/A
Serial/Parallel	S	S/P	P	P	S/P	S	S	S
Heuristic/ Analytic	A	H/A	H	H	H/A	A	A	A
Needs Working Memory	Yes	No	No	No	No	Yes	Yes	Yes
General Intelligence Dependent	Yes	No	No	No	Yes/No	Yes	Yes	Yes
Cognitive Loading Inhibits	Yes	Yes/No	No	No	Yes	Yes	Yes	Yes
Arousal Facilitates or Inhibits	I	F/I	F	F	I	I	I	I

Public Conditions of Satisfaction of S2 are often referred to by Searle and others as COS, Representations, truthmakers or meanings (or COS2 by myself), while the automatic results of S1 are designated as presentations by others (or COS1 by myself).

* Aka Inclinations, Capabilities, Preferences, Representations, possible actions etc.

** Searle's Prior Intentions

*** Searle's Intention In Action

**** Searle's Direction of Fit

***** Searle's Direction of Causation

***** (Mental State instantiates--Causes or Fulfills Itself). Searle formerly called this causally self-referential.

***** Tversky/Kahneman/Frederick/Evans/Stanovich defined cognitive systems.

***** Here and Now or There and Then

It is of interest to compare this with the various tables and charts in Peter Hacker's recent 3 volumes on Human Nature. One should always keep in mind Wittgenstein's discovery that after we have described the possible uses (meanings, truthmakers, Conditions of Satisfaction) of language in a particular context, we have exhausted its interest, and attempts at explanation (i.e., philosophy) only get us further away from the truth. He showed us that there is only one philosophical problem—the use of sentences (language games) in an inappropriate context, and hence only one solution— showing the correct context.

EXPLANATION OF THE TABLE System 1 (i.e., emotions, memory, perceptions, reflexes) which parts of the brain present to consciousness, are automated and generally happen in less than 500msec, while System 2 is abilities to perform slow deliberative actions that are represented in conscious deliberation (S2D-my terminology) requiring over 500msec, but frequently repeated S2 actions can also become automated (S2A-my terminology). There is a gradation of consciousness from coma through the stages of sleep to full awareness. Memory includes short term memory (working memory) of system 2 and long term memory of System 1. For volitions one would usually say they are successful or not, rather than true or false. S1 is causally self-reflexive since the description of our perceptual experience—the presentation of our senses to consciousness, can only be described in the same words (as the same COS - Searle) as we describe the world, which I prefer to call the percept or COS1 to distinguish it from the representation or public COS2 of S2.

Of course, the various rows and columns are logically and psychologically connected. E.g., Emotion, Memory and Perception in the True or False row will be True-Only, will describe a mental state, belong to cognitive system 1, will not generally be initiated voluntarily, are causally self-reflexive, cause originates in the world and causes changes in the mind, have a precise duration, change in intensity, occur here and now, commonly have a special quality, do not need language, are independent of general intelligence and working memory, are not inhibited by cognitive loading, will not have voluntary content, and will not have public conditions of satisfaction etc.

There will always be ambiguities because the words (concepts, language games) cannot precisely match the actual complex functions of the brain (behavior), that is, there is a combinatorial explosion of contexts in sentences and in the brain states), and this is why it's not possible to reduce higher order behavior to a system of laws,

which would have to state all the possible contexts –hence Wittgenstein’s warnings against theories. This is a special case of the irreducibility of higher level descriptions to lower level ones that has been explained many times by Searle, Daniele Moyal-Sharrock (DMS), P.M.S. Hacker, Wittgenstein and others.

About a million years ago primates evolved the ability to use their throat muscles to make complex series of noises (i.e., primitive speech) to describe present events (perceptions, memory, reflexive actions) with some Primary or Primitive Language Games (PLG’s). System 1 is comprised of fast, automated, subcortical, nonrepresentational, causally self-reflexive, intransitive, informationless, true-only mental states with a precise time and location, and over time there evolved in higher cortical centers S2 with the further ability to describe displacements in space and time of events (the past and future and often hypothetical, counterfactual, conditional or fictional preferences, inclinations or dispositions-the Secondary or Sophisticated Language Games (SLG’s) of System 2 that are slow, cortical, conscious, information containing, transitive (having public Conditions of Satisfaction-Searle’s term for truthmakers or meaning which I divide into COS1 and COS2 for private S1 and public S2), representational (which I again divide into R1 for S1 representations and R2 for S2) , true or false propositional thinking, with all S2 functions having no precise time and being abilities and not mental states. Preferences are Intuitions, Tendencies, Automatic Ontological Rules, Behaviors, Abilities, Cognitive Modules, Personality Traits, Templates, Inference Engines, Inclinations, Emotions (described by Searle as agitated desires), Propositional Attitudes (correct only if used to refer to events in the world and not to propositions), Appraisals, Capacities, Hypotheses. Some Emotions are slowly developing and changing results of S2 dispositions (W- ‘Remarks on the Philosophy of Psychology’ V2 p148) while others are typical S1 – automatic and fast to appear and disappear. “I believe”, “he loves”, “they think” are descriptions of possible public acts typically displaced in space-time. My first-person statements about myself are true-only (excluding lying) –i.e. S1, while third person statements about others are true or false –i.e., S2 (see my reviews of Johnston ‘Wittgenstein: Rethinking the Inner’ and of Budd ‘Wittgenstein’s Philosophy of Psychology’).

“Preferences” as a class of intentional states --opposed to perceptions, reflexive acts and memories-- were first clearly described by Wittgenstein (W) in the 1930’s and termed “inclinations” or “dispositions”. They have commonly been termed “propositional attitudes” since Russell but it has often been noted that this is an incorrect or misleading phrase since believing, intending, knowing, remembering

etc., are often not propositional nor attitudes, as has been shown e.g., by W and by Searle (e.g., cf *Consciousness and Language* p118).

Preferences are intrinsic, observer independent public representations (as opposed to presentations or representations of System 1 to System 2 – Searle-*Consciousness and Language* p53). They are potential acts displaced in time or space, while the evolutionarily more primitive S1 perceptions memories and reflexive actions are always here and now. This is one way to characterize System 2 -the second major advance in vertebrate psychology after System 1—the ability to represent (state public COS for) events and to think of them as occurring in another place or time (Searle’s third faculty of counterfactual imagination supplementing cognition and volition). S1 ‘thoughts’ (my T1-i.e., the use of “thinking” to refer to automatic brain processes of System One) are potential or unconscious mental states of S1 --Searle--*Phil Issues* 1:45-66(1991).

Perceptions, memories and reflexive (automatic) actions can be described by primary LG’s (PLG’s -- e.g., I see the dog) and there are, in the normal case, NO TESTS possible so they can be True-Only- i.e., axiomatic as I prefer or animal reflexes as W and DMS describe. Dispositions can be described as secondary LG’s (SLG’s –e.g. I believe I see the dog) and must also be acted out, even for me in my own case (i.e., how do I KNOW what I believe, think, feel until I act or some event occurs—see my reviews of the well-known books on W by Johnston and Budd. Note that Dispositions become Actions when spoken or written as well as being acted out in other ways, and these ideas are all due to Wittgenstein (mid 1930’s) and are NOT Behaviorism (Hintikka & Hintikka 1981, Searle, Hacker, Hutto etc.). Wittgenstein can be regarded as the founder of evolutionary psychology and his work a unique investigation of the functioning of our axiomatic System 1 psychology and its interaction with System 2. After Wittgenstein laid the groundwork for the Descriptive Psychology of Higher Order Thought in the Blue and Brown Books in the early 30’s, it was extended by John Searle, who made a simpler version of this table in his classic book *Rationality in Action* (2001). It expands on W’s survey of the axiomatic structure of evolutionary psychology developed from his very first comments in 1911 and so beautifully laid out in his last work ‘On Certainty’ (OC) (written in 1950-51). OC is the foundation stone of behavior or epistemology and ontology (arguably the same as are semantics and pragmatics), cognitive linguistics or Higher Order Thought, and in my view (shared e.g., by DMS) the single most important work in philosophy (descriptive psychology) and thus in the study of behavior. Perception, Memory, Reflexive actions and Emotion are primitive partly

Subcortical Involuntary Mental States, that can be described in PLG's, in which the mind automatically fits (presents) the world (is Causally Self Reflexive--Searle) -- the unquestionable, true-only, axiomatic basis of rationality over which no control is possible).

Preferences, Desires, and Intentions are descriptions of slow thinking conscious Voluntary Abilities— that can be described in SLC's-- in which the mind tries to fit (represent) the world. Behaviorism and all the other confusions of our default descriptive psychology (philosophy) arise because we cannot see S1 working and describe all actions as the conscious deliberate actions of S2 (The Phenomenological Illusion—TPI—Searle). W understood this and described it with unequalled clarity with hundreds of examples of language (the mind) in action throughout his works. Reason has access to memory and so we use consciously apparent but often incorrect reasons to explain behavior (the Two Selves or Systems or Processes of current research). Beliefs and other Dispositions can be described as thoughts which try to match the facts of the world (mind to world direction of fit), while Volitions are intentions to act (Prior Intentions—PI, or Intentions In Action-IA-Searle) plus acts which try to match the world to the thoughts— world to mind direction of fit— cf. Searle e.g., *Consciousness and Language* p145, 190).

Sometimes there are gaps in reasoning to arrive at belief and other dispositions. Disposition words can be used as nouns which seem to describe mental states ("my thought is...") or as verbs or adjectives to describe abilities (agents as they act or might act -'I think that...') and are often incorrectly called "Propositional Attitudes".

Perceptions become Memories and our innate programs (cognitive modules, templates, inference engines of S1) use these to produce Dispositions— (believing, knowing, understanding, thinking, etc., -actual or potential public acts such as language (thought, mind) also called Inclinations, Preferences, Capabilities, Representations of S2) and Volition -and there is no language (concept, thought) of private mental states for thinking or willing (i.e., no private language, thought or mind). Higher animals can think and will acts and to that extent they have a public psychology. Perceptions: (X is True): Hear, See, Smell, Pain, Touch, Temperature Memories, Remembering : (X was true)

Preferences, Inclinations, Dispositions: (X might become True)

CLASS 1: PROPOSITIONAL (True or False) PUBLIC ACTS: Believing, Judging, Thinking, Representing, Understanding, Choosing, Deciding, Preferring, Interpreting, Knowing (including skills and abilities), Attending (Learning), Experiencing, Meaning, Remembering, Intending, Considering, Desiring , Expecting, Wishing , Wanting, Hoping(a special class), Seeing As (Aspects),

CLASS 2: DECOUPLED MODE-(as if, conditional, hypothetical, fictional) - Dreaming, Imagining, Lying, Predicting, Doubting

CLASS 3: EMOTIONS: Loving, Hating, Fearing, Sorrow, Joy, Jealousy, Depression. Their function is to modulate Preferences to increase inclusive fitness (expected maximum utility) by facilitating information processing of perceptions and memories for rapid action. There is some separation between S1 emotions such as rage and fear and S2 such as love, hate, disgust and anger. We can think of them as strongly felt or acted out desires.

DESIRES: (I want X to be True—I want to change the world to fit my thoughts): Longing, Hoping, Expecting, Awaiting, Needing, Requiring, obliged to do

INTENTIONS: (I will make X True) Intending

ACTIONS (I am making X True) : Acting, Speaking , Reading, Writing, Calculating, Persuading, Showing, Demonstrating, Convincing, Doing Trying, Attempting, Laughing, Playing, Eating, Drinking, Crying, Asserting (Describing, Teaching, Predicting, Reporting), Promising , Making or Using Maps, Books, Drawings, Computer Programs—these are Public and Voluntary and transfer Information to others so they dominate over the Unconscious, Involuntary and Informationless S1 reflexes in explanations of behavior (The Phenomenological Illusion, The Blank Slate or the Standard Social Science Model--SSSM).

Words express actions having various functions in our life and are not the names of objects nor of a single type of event. The social interactions of humans are governed by cognitive modules—roughly equivalent to the scripts or schemata of social psychology (groups of neurons organized into inference engines), which, with

perceptions and memories, lead to the formation of preferences which lead to intentions and then to actions. Intentionality or intentional psychology can be taken to be all these processes or only preferences leading to actions and in the broader sense is the subject of cognitive psychology or cognitive neurosciences when including neurophysiology, neurochemistry and neurogenetics. Evolutionary psychology can be regarded as the study of all the preceding functions or of the operation of the modules which produce behavior, and is then coextensive in evolution, development and individual action with preferences, intentions and actions. Since the axioms (algorithms or cognitive modules) of our psychology are in our genes, we can enlarge our understanding and increase our power by giving clear descriptions of how they work and can extend them (culture) via biology, psychology, philosophy (descriptive psychology), math, logic, physics, and computer programs, thus making them faster and more efficient. Hajek (2003) gives an analysis of dispositions as conditional probabilities which are algorithmatized by Rott (1999), Spohn etc.

Intentionality (cognitive or evolutionary psychology) consists of various aspects of behavior which are innately programmed into cognitive modules which create and require consciousness, will and self, and in normal human adults nearly all except perceptions and some memories are purposive, require public acts (e.g., language), and commit us to relationships in order to increase our inclusive fitness (maximum expected utility or Bayesian utility maximization). However, Bayesianism is highly questionable due to severe underdetermination-i.e., it can 'explain' anything and hence nothing. This occurs via dominance and reciprocal altruism, often resulting in Desire Independent Reasons for Action (Searle)- which I divide into DIRA1 and DIRA2 for S1 and S2) and imposes Conditions of Satisfaction on Conditions of Satisfaction (Searle)-(i.e., relates thoughts to the world via public acts (muscle movements), producing math, language, art, music, sex, sports etc. The basics of this were figured out by our greatest natural psychologist Ludwig Wittgenstein from the 1930's to 1951 but with clear foreshadowings back to 1911, and with refinements by many, but above all by John Searle beginning in the 1960's. "The general tree of psychological phenomena. I strive not for exactness but for a view of the whole." RPP Vol 1 p895 cf. Z p464. Much of intentionality (e.g., our language games) admits of degrees. As W noted, inclinations are sometimes conscious and deliberative. All our templates (functions, concepts, language games) have fuzzy edges in some contexts as they must to be useful.

There are at least two types of thinking (i.e., two language games or ways of using

the dispositional verb “thinking”)—non-rational without awareness and rational with partial awareness(W), now described as the fast and slow thinking of S1 and S2. It is useful to regard these as language games and not as mere phenomena (W RPP Vol2 p129). Mental phenomena (our subjective or internal “experiences”) are epiphenomenal, lack criteria, hence lack info even for oneself and thus can play no role in communication, thinking or mind. Thinking like all dispositions lacks any test, is not a mental state (unlike perceptions of S1), and contains no information until it becomes a public act or event such as in speech, writing or other muscular contractions. Our perceptions and memories can have information (meaning-i.e., a public COS) only when they are manifested in public actions, for only then do thinking, feeling etc. have any meaning (consequences) even for ourselves.

Memory and perception are integrated by modules into dispositions which become psychologically effective when they are acted upon—i.e., S1 generates S2. Developing language means manifesting the innate ability of advanced humans to substitute words (fine contractions of oral or manual muscles) for acts (gross contractions of arm and leg muscles). TOM (Theory of Mind) is much better called UA-Understanding of Agency (my term) and UA1 and UA2 for such functions in S1 and S2 –and can also be called Evolutionary Psychology or Intentionality--the innate genetically programmed production of consciousness, self, and thought which leads to intentions and then to actions by contracting muscles—i.e., Understanding is a Disposition like Thinking and Knowing. Thus, “propositional attitude” is an incorrect term for normal intuitive deliberative S2D (i.e., the slow deliberative functioning of System 2) or automated S2A (i.e., the conversion of frequently practiced System 2 functions of speech and action into automatic fast functions). We see that the efforts of cognitive science to understand thinking, emotions etc. by studying neurophysiology is not going to tell us anything more about how the mind (thought, language) works (as opposed to how the brain works) than we already know, because “mind” (thought, language) is already in full public view (W). Any ‘phenomena’ that are hidden in neurophysiology, biochemistry, genetics, quantum mechanics, or string theory, are as irrelevant to our social life as the fact that a table is composed of atoms which “obey” (can be described by) the laws of physics and chemistry is to having lunch on it. As W so famously said “Nothing is hidden”. Everything of interest about the mind (thought, language) is open to view if we only examine carefully the workings of language. Language (mind, public speech connected to potential actions) was evolved to facilitate social interaction and thus the gathering of resources, survival and reproduction. Its grammar (i.e., evolutionary psychology, intentionality) functions automatically and is extremely confusing when we try to analyze it. This has been

explained frequently by Hacker, DMS and many others.

As W noted with countless carefully stated examples, words and sentences have multiple uses depending on context. I believe and I eat have profoundly different roles as do I believe and I believed or I believe and he believes. The present tense first person use of inclinational verbs such as “I believe” normally describe my ability to predict my probable acts based on knowledge (i.e., S2) but can also seem (in philosophical contexts) to be descriptive of my mental state and so not based on knowledge or information (W and see my review of the book by Hutto and Myin). In the former S1 sense, it does not describe a truth but makes itself true in the act of saying it --i.e., “I believe it’s raining” makes itself true. That is, disposition verbs used in first person present tense can be causally self-reflexive--they instantiate themselves but then they are not testable (i.e., not T or F, not S2). However past or future tense or third person use--“I believed” or “he believes” or “he will believe” contain or can be resolved by information that is true or false, as they describe public acts that are or can become verifiable. Likewise, “I believe it’s raining” has no information apart from subsequent actions, even for me, but “I believe it will rain” or “he will think it’s raining” are potentially verifiable public acts displaced in spacetime that intend to convey information (or misinformation).

Non-reflective or Non-rational (automatic) words spoken without Prior Intent (which I call S2A—i.e., S2D automated by practice) have been called Words as Deeds by W & then by Daniel Moyal-Sharrock in her paper in *Philosophical Psychology* in 2000). Many so-called Inclinations/Dispositions/Preferences/Tendencies/Capacities/Abilities are Non-Propositional (Non-Reflective) Attitudes (far more useful to call them functions or abilities) of System 1 (Tversky and Kahneman). Prior Intentions are stated by Searle to be Mental States and hence S1, but again I think one must separate PI1 and PI2 since in our normal language our prior intentions are the conscious deliberations of S2. Perceptions, Memories, type 2 Dispositions (e.g., some emotions) and many Type 1 Dispositions are better called Reflexes of S1 and are automatic, nonreflective, NON-Propositional and NON-Attitudinal functioning of the hinges (axioms, algorithms) of our Evolutionary Psychology (Moyal-Sharrock after Wittgenstein).

Thus when Searle introduces some terminology on p6 of STATA we see that VisExp (it is raining) is S1 while Bel(it is raining) or Assert(it is raining) is S2.

We have only one set of genes and hence one language (mind), one behavior (human nature or evolutionary psychology), which W and S refer to as the bedrock or background and reflecting upon this we generate philosophy which S calls the logical structure of rationality and I call the descriptive psychology of Higher Order Thought (HOT) or, taking the cue from W, the study of the language describing HOT. The only interest in reading anyone's comments on philosophical aspects of human behavior (HOT) is to see if its translation into the W/S framework gives some clear descriptions which illuminate the use of language. If not, then showing how they have been bewitched by language dispels the confusion. As Horwich has noted on the last page of his superb 'Wittgenstein's Metaphilosophy' (see my review): "What sort of progress is this—the fascinating mystery has been removed—yet no depths have been plumbed in consolation; nothing has been explained or discovered or reconceived. How tame and uninspiring one might think. But perhaps, as Wittgenstein suggests, the virtues of clarity, demystification and truth should be found satisfying enough." Nevertheless, W/S do much explaining (or as W suggested we ought to say "describing") and S states that the logical structure of rationality constitutes various theories, and there is no harm in it, provided one realizes they are comprised of a series of examples that let us get a general idea of how language (the mind) works and that as his "theories" are explicated via examples they become more like W's perspicuous descriptions. "A rose by any other name..." When there is a question one has to go back to the examples or consider new ones. As W noted, language (life) is limitlessly complex and context sensitive (W being the unacknowledged father of Contextualism), and so it is utterly unlike physics where one can often derive a formula and dispense with the need for further examples. Scientism (the use of scientific language and the causal framework) leads us astray in describing HOT. "Philosophers constantly see the method of science before their eyes and are irresistibly tempted to ask and answer questions in the way science does. This tendency is the real source of metaphysics and leads the philosopher into complete darkness."(BBB p18). Unlike so many others, S has largely avoided and often demolished scientism, but there is a residue which evinces itself when he remarks in various writings that we can understand consciousness by studying the brain or that he is prepared to give up causality, will or mind. W made it abundantly clear that such words are the hinges or basic language games and giving them up or even changing them is not a coherent concept. As noted in my other reviews, I think the residue of scientism results from the major tragedy of S's (and nearly all other philosopher's) philosophical life --his failure to take the later W seriously enough (W died a few years before S went to England to study).

“Here we come up against a remarkable and characteristic phenomenon in philosophical investigation: the difficulty---I might say---is not that of finding the solution but rather that of recognizing as the solution something that looks as if it were only a preliminary to it. We have already said everything. --- Not anything that follows from this, no this itself is the solution! This is connected, I believe, with our wrongly expecting an explanation, whereas the solution of the difficulty is a description, if we give it the right place in our considerations. If we dwell upon it, and do not try to get beyond it.” Zettel p312-314

“Our method is purely descriptive, the descriptions we give are not hints of explanations.” BBB p125

It follows both from W's 3rd period work and contemporary psychology, that 'will', 'self' and 'consciousness' are axiomatic true-only elements of the reptilian subcortical System One (S1) composed of perceptions, memories and reflexes, and there is no possibility (intelligibility) of demonstrating (of giving sense to) their falsehood. As W made so wonderfully clear, they are the basis for judgment and so cannot be judged. The true-only axioms of our psychology are not evidential.

Philosophers are rarely clear about exactly what it is that they expect to contribute that other students of behavior (i.e., scientists) do not, so, noting W's above remark on science envy, I will quote from P.M.S Hacker (the leading expert on W) who gives a good start on it and a counterblast to scientism.

“Traditional epistemologists want to know whether knowledge is true belief and a further condition ..., or whether knowledge does not even imply belief ...What needs to be clarified if these questions are to be answered is the web of our epistemic concepts, the ways in which the various concepts hang together, the various forms of their compatibilities and incompatibilities, their point and purpose, their presuppositions and different forms of context dependency. To this venerable exercise in connective analysis, scientific knowledge, psychology, neuroscience and self-styled cognitive science can contribute nothing whatsoever.” (Passing by the naturalistic turn: on Quine's cul-de-sac- p15-2005)

Before remarking further on 'STATA' I will first offer some essential comments on

philosophy and its relationship to contemporary psychological research as exemplified in the works of Searle (S), Wittgenstein (W), Hacker (H) et al. It will help to see my reviews of S's PNC (Philosophy in a New Century), Making the Social World (MSW) and W's BBB (Blue and Brown Books), PI (Philosophical Investigations), OC (On Certainty), and other books by and about these geniuses, who provide a clear description of higher order behavior, not found in psychology books, that I will refer to as the W/S framework.

As noted in my other reviews, philosophical mistakes are of interest since they are the universal defaults of our psychology, due the fact that our language lacks perspicuity, as W first noted in the BBB (Blue and Brown Books) $\frac{3}{4}$ of a century ago.

A major theme in all discussion of human behavior is the need to separate the genetically programmed automatism from the effects of culture. All study of higher order behavior (HOT) is an effort to tease apart not only fast S1 and slow S2 thinking --e.g., perceptions and other automatism vs. dispositions, but the extensions of S2 into culture (S3). Searle's work as a whole provides a stunning description of higher order S2/S3 social behavior, while the later W shows how it is based on true-only unconscious axioms of S1 which evolved into conscious dispositional propositional thinking of S2.

S1 is the simple automated functions of our involuntary, System 1, fast thinking, mirror neuron, true-only, non- propositional, pre-linguistic mental states- our perceptions and memories and reflexive acts including System 1 Truths and UA1 - -Understanding of Agency 1-- and Emotions1- such as joy, love, anger) which can be described causally, while the evolutionarily later linguistic functions are expressions or descriptions of voluntary, System 2, slow thinking, mentalizing neurons. That is, of testable true or false, propositional, Truth2 and UA2 and Emotions2 (joyfulness, loving, hating) -- the dispositional (and often counterfactual) imagining, supposing, intending, thinking, knowing, believing, etc. which can only be described in terms of reasons (i.e., it's just a fact that attempts to describe System 2 in terms of neurochemistry, atomic physics, mathematics, make no sense--see W, S, Hacker etc.).

The investigation of System 1 has revolutionized psychology, economics and other disciplines under names like "cognitive illusions", "priming", "framing", "heuristics"

and "biases". Of course, these too are language games so there will be more and less useful ways to use these words, and studies and discussions will vary from "pure" System 1 to combinations of 1 and 2 (the norm as W made clear), but not of S2 only, since it cannot occur without involving much of the intricate S1 network of "cognitive modules", "inference engines", "intracerebral reflexes", "automatisms", "cognitive axioms", "background" or "bedrock" --as W and later S call our Evolutionary Psychology (EP).

The deontic structures or 'social glue' are the automatic fast actions of S1 producing the slow dispositions of S2 which are inexorably expanded during personal development into a wide array of automatic universal cultural deontic relationships so well described by Searle. I expect this fairly well abstracts the basic structure of behavior as described in my other reviews.

So, recognizing that S1 is only upwardly causal (world to mind) and contentless (lacking representations or information) while S2 has content (i.e. is representational) and is downwardly causal (mind to world) (e.g., see my review of Hutto and Myin's 'Radical Enactivism'), I would translate the paragraphs from S's MSW p39 beginning "In sum" and ending on pg 40 with "conditions of satisfaction" as follows.

In sum, perception, memory and reflexive prior intentions and actions ('will') are caused by the automatic functioning of our S1 true-only axiomatic EP as modified by S2 ('free will'). We try to match how we desire things to be with how we think they are. We should see that belief, desire (and imagination--desires time shifted and decoupled from intention) and other S2 propositional dispositions of our slow thinking later evolved second self, are totally dependent upon (have their Conditions of Satisfaction (COS) originating in) the Causally Self Reflexive (CSR) rapid automatic primitive true- only reflexive S1. In language and neurophysiology there are intermediate or blended cases such as intending (prior intentions) or remembering, where the causal connection of the COS with S1 is time shifted, as they represent the past or the future, unlike S1 which is always in the present. S1 and S2 feed into each other and are often orchestrated seamlessly by the learned deontic cultural relations, so that our normal experience is that we consciously control everything that we do. This vast arena of cognitive illusions that dominate our life Searle has described as 'The Phenomenological Illusion' (TPI).

"Some of the most important logical features of intentionality are beyond the reach

of phenomenology because they have no immediate phenomenological reality... Because the creation of meaningfulness out of meaninglessness is not consciously experienced...it does not exist...This is... the phenomenological illusion." Searle PNC p115-117

Disposition words (Preferences--see above table) have at least two basic uses. One refers to the true-only sentences describing our direct perceptions, reflexes (including basic speech) and memory, i.e., our innate axiomatic S1 psychology which are Causally Self Reflexive(CSR)-(called reflexive or intransitive in W's BBB), and the S2 use as disposition words (thinking, understanding, knowing etc.) which can be acted out, and which can become true or false ('I know my way home')--i.e., they have Conditions of Satisfaction (COS) and are not CSR(called transitive in BBB).

"How does the philosophical problem about mental processes and states and about behaviorism arise? – The first step is the one that altogether escapes notice. We talk about processes and states and leave their nature undecided. Sometime perhaps we shall know more about them-we think. But that is just what commits us to a particular way of looking at the matter. For we have a definite concept of what it means to learn to know a process better. (The decisive movement in the conjuring trick has been made, and it was the very one we thought quite innocent). – And now the analogy which was to make us understand our thoughts falls to pieces. So, we have to deny the yet uncomprehended process in the yet unexplored medium. And now it looks as though we had denied mental processes. And naturally we don't want to deny them. W's PI p308

"...the basic intentional relation between the mind and the world has to do with conditions of satisfaction. And a proposition is anything at all that can stand in an intentional relation to the world, and since those intentional relations always determine conditions of satisfaction, and a proposition is defined as anything sufficient to determine conditions of satisfaction, it turns out that all intentionality is a matter of propositions." Searle PNC p193

"The intentional state represents its conditions of satisfaction...people erroneously suppose that every mental representation must be consciously thought...but the notion of a representation as I am using it is a functional and not an ontological

notion. Anything that has conditions of satisfaction, that can succeed or fail in a way that is characteristic of intentionality, is by definition a representation of its conditions of satisfaction...we can analyze the structure of the intentionality of social phenomena by analyzing their conditions of satisfaction." Searle MSW p28-32

Like Carruthers and others, S sometimes states (e.g., p66-67 MSW) that S1 (i.e., memories, perceptions, reflex acts) has a propositional (i.e., true-false) structure. As I have noted above, and many times in other reviews, it seems crystal clear that W is correct, and it is basic to understanding behavior, that only S2 is propositional and S1 is axiomatic and true-only. However, since what S and various authors here call the background (S1) gives rise to S2 and is in turn partly controlled by S2, there has to be a sense in which S1 is able to become propositional and they and Searle note that the unconscious activities of S2 must be able to become the conscious ones of S2. They both have COS and Directions of Fit (DOF) because the genetic, axiomatic intentionality of S1 generates that of S2, but if S1 were propositional in the same sense it would mean that skepticism is intelligible, the chaos that was philosophy before W would return, and in fact if true, life would not be possible. It would e.g., mean that truth and falsity and the facts of the world could be decided without consciousness. As W stated often and showed so brilliantly in his last book *On Certainty*, life must be based on certainty--automated unconscious rapid reactions. Organisms that always have a doubt and pause to reflect will die--no evolution, no people, no philosophy.

Another crucial notion clarified by S is the Desire Independent Reasons for Action (DIRA). I would translate S's summary of practical reason on p127 of MSW as follows: "We yield to our desires (need to alter brain chemistry), which typically include Desire -Independent Reasons for Action (DIRA--i.e., desires displaced in space and time), which produce dispositions to behavior that commonly result sooner or later in muscle movements that serve our inclusive fitness (increased survival for genes in ourselves and those closely related)." And I would restate his description on p129 of how we carry out DIRA2 as "The resolution of the paradox is that the unconscious DIRA1 serving long term inclusive fitness generate the conscious DIRA2 which often override the short term personal immediate desires." Agents do indeed consciously create the proximate reasons of DIRA2, but these are very restricted extensions of unconscious DIRA1 (the ultimate cause). Obama and the Pope wish to help the poor because it is "right" but the ultimate cause is a change in their brain chemistry that increased the inclusive fitness of their distant

ancestors. Evolution by inclusive fitness has programmed the unconscious rapid reflexive causal actions of S1 which often give rise to the conscious slow thinking of S2 which generates endless cultural extensions, and which produces reasons for action that often result in activation of body and/or speech muscles by S1 causing actions. The general mechanism is via both neurotransmission and by changes in neuromodulators in targeted areas of the brain. The overall cognitive illusion (called by Searle 'The Phenomenological Illusion', by Pinker 'The Blank Slate' and by Tooby and Cosmides 'The Standard Social Science Model') is that S2 has generated the action consciously for reasons of which we are fully aware and in control of, but anyone familiar with modern biology and psychology can see that this view is not credible.

A sentence expresses a thought (has a meaning), when it has clear COS, i.e., public truth conditions. Hence the comment from W: " When I think in language, there aren't 'meanings' going through my mind in addition to the verbal expressions: the language is itself the vehicle of thought." And, if I think with or without words, the thought is whatever I (honestly) say it is as there is no other possible criterion (COS). Thus, W's lovely aphorisms (p132 Budd-Wittgenstein's Philosophy of Psychology) "It is in language that wish and fulfillment meet" and "Like everything metaphysical, the harmony between thought and reality is to be found in the grammar of the language." And one might note here that 'grammar' in W can usually be translated as EP and that in spite of his frequent warnings against theorizing and generalizing, this is about as broad a characterization of higher order descriptive psychology (philosophy) as one can find — beyond even Searle.

"Every sign is capable of interpretation but the meaning mustn't be capable of interpretation. It is the last interpretation" W's BBB p34

Though W is correct that there is no mental state that constitutes meaning, S notes that there is a general way to characterize the act of meaning-- "Speaker meaning... is the imposition of conditions of satisfaction on conditions of satisfaction" which means to speak or write a well-formed sentence expressing COS in a context that can be true or false and this is an act and not a mental state. Hence the famous quote from W: "If God had looked into our minds he would not have been able to see there whom we were speaking of (PI p217)" and his comments that the whole problem of representation is contained in "that's Him" and "...what gives the image its interpretation is the path on which it lies," or as S says its COS. Hence W's summation (p140 Budd) that "What it always comes to in the end is that without any further meaning, he calls what happened the wish that that should happen"..."

the question whether I know what I wish before my wish is fulfilled cannot arise at all. And the fact that some event stops my wishing does not mean that it fulfills it. Perhaps I should not have been satisfied if my wish had been satisfied"...Suppose it were asked 'Do I know what I long for before I get it? If I have learned to talk, then I do know.'

W can also be regarded as a pioneer in evolutionary cognitive linguistics. He dissects hundreds of language games showing how the true-only perceptions, memories and reflexive actions of system one (S1) grade into the thinking, remembering, and understanding of system two (S2) dispositions, and many of his examples also address the nature/nurture issue explicitly. With this evolutionary perspective, his later works are a breathtaking revelation of human nature that is entirely current and has never been equaled. Many perspectives have heuristic value, but I find that this evolutionary two systems view is the best. To paraphrase Dobzhansky's famous comment: "Nothing in philosophy makes sense except in the light of evolutionary psychology."

W recognized that 'Nothing is Hidden'—i.e., our whole psychology and all the answers to all philosophical questions are here in our language (our life) and that the difficulty is not to find the answers but to recognize them as always here in front of us—we just have to stop trying to look deeper and to abandon the myth of introspective access to our "inner life" (e.g., "The greatest danger here is wanting to observe oneself." LWPP1, 459).

Incidentally, the equation of logic or grammar and our axiomatic psychology is essential to understanding W and human nature (as Daniele Moyal Sharrock (DMS) but afaik nobody else, points out).

Our shared public experience becomes a true-only extension of our axiomatic EP and cannot be found mistaken without threatening our sanity. That is, the consequences of an S1 'mistake' are quite different from an S2 mistake. A corollary, nicely explained by DMS and elucidated in his own unique manner by Searle, is that the skeptical view of the world and other minds (and a mountain of other nonsense including the Blank Slate) cannot really get a foothold, as "reality" is the result of involuntary axioms and not testable true or false propositions.

In spite of the fact that most of the above has been known to many for decades (and even $\frac{3}{4}$ of a century in the case of some of W's teachings), I have never seen anything approaching an adequate discussion in behavioral science texts (i.e., philosophy, psychology, sociology, anthropology, literature etc.) and with rare exceptions there

is barely a mention.

It should be obvious from the above that the issues are always about mistakes in language used to describe our universal innate psychology and there is no useful sense in which there can be a Chinese, French, Christian, Feminist etc. view of them. Such views can exist of philosophy in the other sense but that is not what philosophy of mind (or to W, S or me what any interesting and substantive philosophy) is about. As often occurs, S's discussion is marred by his failure to carry his understanding of W's "background" to its logical conclusion and so he suggests (as he has frequently) that he might have to give up the concept of free will, which I find (with W) incoherent. Not that we ought not to give it up but there is no sense that can be made of such a suggestion anymore that one can give up running, desiring, intending, hoping etc. Likewise, nobody can give arguments for the background (i.e., our axiomatic psychology), as our being able to talk or to live at all presupposes it (as W noted frequently). Yes, it's also true that "reduction" along with "monism", "reality", etc., are complex language games and they do not carry meaning along in little backpacks! One must dissect ONE usage in detail to get clear and then see how another usage (context) differs. The 20,000 pages of W's nachlass are hands down the best lesson on how this has to be done.

One needs to remember that dispositions (e.g., thinking, knowing) that state a COS are thereby true or false and a function of S2 (as opposed to S1 which are true only). And the "radical underdetermination of meaning" aka "the combinatorial explosion" was first solved by W who noted that S1 can be true only.

In another recent volume, S comments "The heart of my argument is that our linguistic practices, as commonly understood, presuppose a reality that exists independently of our representations", to which I would add "Our life shows a world that does not depend on our existence and cannot be intelligibly challenged."

Now that we have a framework, we can consider Searle's comments on the nature of perception.

As one expects from any philosophy, we are in deep trouble immediately, for on page 4 we have the terms

'perception' and 'object' as though they were used in some normal sense but we are

doing philosophy so we are going to be undulating back and forth between language games have no chance of keeping our day to day games distinct from the various philosophical ones. Again, you can read some of Neuroscience and Philosophy' or

'Philosophical Foundations of Neuroscience' to get a feel for this. Also, a quick review of the table of Intentionality above will place his terms, 'causally self-reflexive' etc. in context. Sadly, like nearly all philosophers, Searle (S) has not adopted the two systems framework, so it's much harder to keep things straight.

So on p6, Believing and Asserting are part of system 2 which is linguistic, deliberative, slow, with no precise time of occurrence and 'it is raining' is their public Condition of Satisfaction (COS2) (Wittgenstein's transitive) –i.e., it is propositional and representational and not a mental state and we can only intelligibly describe it in terms of reasons, while Visual Experience (VisExp) is system 1 and so requires (for intelligibility, for sanity) that it be raining (it's COS1) and has a determinate time of occurrence, is fast (typically under 500msec), non-testable (Wittgenstein's true-only), and nonpublic, automatic and not linguistic i.e., not propositional and presentational and only describable in terms of causes of a mental state. In spite of this on p7 after crushing the horrific (but still quite popular) term 'propositional attitude', he says that perception has propositional content, but I agree with W that S1 is true-only and hence cannot be propositional in anything like the sense of S2 where propositions are public statements (COS) that are true or false.

On p12 keep in mind that he is describing the automaticity of System 1 (S1), and then he notes that to describe the world we can only repeat the description which W noted as showing the limits of language. The last sentence on to the end of the paragraph middle of p13 needs translating (like most of philosophy!) so for "The subjective experience has a content, which philosophers call an intentional content and the specification of the intentional content is the same as the description of the state of affairs that the intentional content presents you with etc." I would say 'Perceptions are System 1 mental states that can only be described in the public language of System 2.' And when he ends by noting again the equivalence of a description of believing with that of a description of our perception, he is repeating what W noted long ago and which is due to the fact that S1 is nonlinguistic and that describing, believing, knowing, expecting, etc. are all different psychological or intentional modes or language games played with the same words.

On p23 he refers to private 'experiences' but words are S2 and describe public events, so what warrants our use of the word for 'private' S1 'experiences' can only be their public manifestations—i.e., language we all use to describe public acts as even for myself I cannot have any way to attach language to something internal. This is of course W's argument against the possibility of a private language. He also mentions several times that hallucinations of X are the same as seeing X but what can be the test for this except that we are inclined to use the same words? In this case, they are the same by definition so this argument rings hollow.

On p33 his 'basic forms' of intentionality are S1 while the 'derivative forms' are S2 and the two modes 'seeing' and 'thinking' as used here are S1 and S2 but the universal problem is that these words can be used for either S1 or S2 and nobody keeps them distinct.

On p35 top he again correctly attacks the use of 'propositional attitude' which is not an attitude to a sentence but an attitude (disposition) to its public COS, i.e., to the fact or truthmaker. Then he says "For example, if I see a man in front of me, the content is that there is a man in front of me. The object is the man himself. If I am having a corresponding hallucination, the perceptual experience has a content, but no object. The content can be exactly the same in the two cases, but the presence of a content does not imply the presence of an object." The way I see this is that the 'object' is normally in the world and creates the mental state (S1) and if we put this in words it becomes S2 with COS2 (i.e., a public truthmaker) and this does entail the public object, but for an hallucination (or direct brain stimulation etc.) the 'object' is only the similar mental state resulting from brain activation.

On p37 as usual in describing human behavior it seems to me very useful to try to keep S1 and S2 separated so here we can refer to the perception of something as P1 but when we describe it we can refer to the perception as P2.

As W showed us, the big mistake is not just about understanding perception but not understanding language—all the problems of philosophy proper are exactly the same—failure to look carefully at how the language works in a particular context so as to yield clear COS.

On p53 what exactly is the test (COS2) that shows that the cause of or mental state of an hallucination is the 'same' as that when there is no hallucination? Even if we 'see' our long dead mother, with a few possible rare exceptions of insanity, brain damage etc., we know it's not her—i.e., it's false and we take the failure to distinguish the two as a sign of illness. So, the COS2 in hallucination is only that we feel as if she were present, though we (normally) know it cannot be, while the COS2 when she was alive is that we can confirm by a public test it is her. But he is correct that there is a more or less common percept in the two cases so that the presentation or COS1 is similar and conceivably could sometimes be as identical as any two mental states, thoughts, feelings etc. ever get—i.e., not very.

On p59 I believe that the argument from transparency originated with W. "The limit of language is shown by its being impossible to describe a fact which corresponds to (is the translation of) a sentence without simply repeating the sentence ..." (Wittgenstein CV p10). At the bottom of the page, once again the presentation is S1 and the description or representation is S2.

Middle of p61 we see the confusions that arise here and everywhere when we fail to keep S1 and S2 separate. Either we must not refer to representations in S1 or we must at least call them R1 and realize they have no public COS—i.e., no COS2.

On p63 nondetachability only means that it is a caused automatic function of S1 and not a reasoned, voluntary function of S2. This discussion continues onto the next page, but of course is relevant to the whole book and to all of philosophy, and it is so unfortunate that Searle, and nearly all in the behavioral sciences, cannot get into the 21st century and use the two systems terminology which renders so many opaque issues very clear. Likewise, with the failure to grasp that it's always just a matter of whether it's a scientific issue or a philosophical one and if philosophical then which language game is going to be played and what the COS are in the context in question.

On p64 he says the 'experience' is in his head but that is just the issue—as W made so clear there is no private language and as Bennett and Hacker take the whole neuroscience community to task for, in normal use 'experience' can only be a public phenomenon for which we share criteria, but what is the test for my having an

experience in my head? At the least, there is an ambiguity here which will lead to others. Many

think these don't matter, many think they do. Something happens in the brain but that's a scientific neurophysiological issue and certainly by 'experience' or by 'I saw a rabbit' one never means the neurophysiology. Clearly this is not a matter for investigation but one of using words intelligibly.

On p65 indexical, nondetachable, and presentational are just more philosophical jargon used instead of System 1 by people who have not adopted the two systems framework for describing behavior (i.e., nearly everyone). Likewise, for the following pages if we realize that 'objects and states of affairs', 'visual experiences', 'fully determinate' etc., are just language games where we have to decide what the COS are and that if we just keep in mind the properties of S1 and S2 all of this becomes quite clear and Searle and everyone else could stop 'struggling to express' it. Thus (p69) 'reality is determinate' only means that perceptions are S1 and so mental states, here and now, automatic, causal, untestable (true-only) etc. while beliefs, like all dispositions are S2 and so not mental states, do not have a definite time, have reasons and not causes, are testable with COS etc. On p70 he notes that intentions in action of perception (IA1 in my terms) are part of the reflexive acts of S1 (A1 in my terms) which may originate in S2 acts which have become reflexive (S2A in my terminology).

On the bottom of p74 onto p75, 500 msec is often taken as the approximate dividing line between seeing (S1) and seeing as (S2) which means S1 passes the percept to higher cortical centers of S2 where they can be deliberated upon and expressed in language.

Regarding p100, see W's 'On Certainty' and DMS's papers and books on it or just my brief analysis of their efforts in my LSR paper. On p101 we can usually substitute COS for 'truth conditions'.

On p100-101 the 'subjective visual field' is S2 and 'objective visual field' is S1 and 'nothing is seen' in S2 means we don't play the language game of seeing in the same sense as for S1 and indeed philosophy and a good chunk of science (e.g., physics) would be different if people had realized they were playing language games and not doing science.

On p107 'perception is transparent' because language is S2 and S1 has no language as it's automatic and reflexive so when saying what I saw or to describe what I saw I can only say "I saw a cat". Once again W pointed this out long ago as showing the limits of language.

On p108 we can say that deliberate acts (A2) always must happen by activating S1 just as must reflexive acts (A1). On p109 we might rephrase '...whenever you consciously perceive anything, you take the cause of your perceptual experience to be its object' as 'perceptions, like all functions of S1 are nontestable'.

P110 middle needs to be translated from SearleSpeak into TwoSystemsSpeak so that "Because presentational visual intentionality is a subspecies of representation, and because all representation is under aspects, the visual presentations will always present their conditions of satisfaction under some aspects and not others." becomes "Because the percepts of S1 present their data to S2, which has public COS, we can speak of S1 as though it also has public COS". On p111 the 'condition' refers to the public COS of S2, i.e., the events which make the statement true or false and 'lower order' and 'higher order' refer to S1 and S2. On p112 the basic action and basic perception are isomorphic because S1 feeds its data to S2, which can only generate actions by feeding back to S1 to contract muscles, and lower level perception and higher level perception can only be described in the same terms due to there being only one language to describe S1 and S2. On p117 bottom it would be much less mysterious if he would adopt the two systems framework so that instead of "internal connection" with conditions of satisfaction (my COS1), a perception would just be noted as the automaticity of S1 which causes a mental state.

On p118 if W did commit the Bad Argument it was in the TLP and not his later work, and in any case the 'fact' is the COS (the representation) or the truthmaker of S2 stated by a sentence which is just the right description.

On p120 the point is that 'causal chains' have no explanatory power because the language games of 'cause' only make sense in S1 or other non-psychological phenomena of nature, whereas semantics is S2 and we can only intelligibly speak of reasons for higher order human behavior. One way this manifests is 'meaning is not in the head' which enmeshes us in other language games.

On p121 to say it's essential to a perception (S1) that it has COS1 ('the experience') merely describes the conditions of the language game of perception—it is an automatic causal mental state.

On p 122 I think "First, for something to be red in the ontologically objective world is for it to be capable of causing ontologically subjective visual experiences like this." is not coherent as there is nothing to which we can refer 'this' so it should be stated as "First, for something to be red is just for it to incline me to call it 'red'" — as usual, the jargon does not help at all and the rest of the paragraph is unnecessary as well.

On p123 the 'background disposition' is the automatic, causal, mental state of S1 and as I, in agreement with W, DMS and others have said many times these cannot intelligibly be called 'presuppositions' as they are unconsciously activated 'hinges' that are the basis for presuppositions.

Section VII and VIII (or the whole book or most of higher order behavior or most of philosophy in the narrow sense) could be titled "The language games describing the interaction of the causal, automatic, nonlinguistic transient mental states of S1 with the reasoned, conscious, persistent linguistic thinking of S2" and the background is not suppositional nor can it be taken for granted but it is our axiomatic true-only psychology (the 'hinges' or 'ways of acting' of W's 'On Certainty') that underlie all suppositions. As is evident from my comments I think the whole section, lacking the two systems framework and W's insights in OC is confused in supposing it presents an "explanation" of perception where it can at best only describe how the language of perception works in various contexts. We can only describe how the word 'red' is used and that's the end of it and for the last sentence of this section we might say that for something to be a 'red apple' is only for it to normally result in the same words being used by everyone.

Speaking of hinges, it is sad and a bit strange that Searle has not incorporated what many (e.g., DMS an eminent contemporary philosopher and leading W expert) regard as maybe the greatest discovery in modern philosophy— W's revolutionizing of epistemology in his 'On Certainty' as nobody can do philosophy or psychology in the old way anymore without looking antiquated. And though

Searle almost entirely ignored 'On Certainty' his whole career, in 2009 (i.e., 6 years before publication of this book) he spoke at a symposium on it held by the British Wittgenstein Society and hosted by DMS, so he is certainly aware of the view that has revolutionized the very topics he is discussing here. I don't think this meeting was published, but his lecture can be downloaded from Vimeo. It seems to be a case of an old dog who can't learn new tricks. Though he has probably pioneered more new territory in the descriptive psychology of higher order behavior than anyone since Wittgenstein, once he has learned a path he tends to stay on it, as we all do. Like everyone, he uses the French word repertoire when there is an easier to pronounce and spell English word 'repertory' and the awkward 'he/she' or reverse sexist 'she' when one can always use 'they' or 'them'. In spite of their higher intelligence and education, academics are sheep too.

Section IX to the end of the chapter shows again the very opaque and awkward language games one is forced into when trying to describe (not explain as *W* made clear) the properties of S1 (i.e., to play the language games used to describe 'primary qualities') and how these feed data into S2 (i.e., secondary qualities'), which then has to feed back to S1 to generate actions. It also shows the errors one commits by failing to grasp Wittgenstein's unique view of 'hinge epistemology' presented in "On Certainty". To show how much clearer this is with the dual system terminology I would have to rewrite the whole chapter (and much of the book). Since I have rewritten sections here several times, and often in my reviews of Searle's other books, I will only give a couple brief examples.

The sentence on p129 "Reality is not dependent on experience, but conversely. The concept of the reality in question already involves the causal capacity to produce certain sorts of experiences. So the reason that these experiences present red objects is that the very fact of being a red object involves a capacity to produce this sort of experience. Being a straight line involves the capacity to produce this other sort of experience. The upshot is that organisms cannot have these experiences without it seeming to them that they are seeing a red object or a straight line, and that "seeming to them" marks the intrinsic intentionality of the perceptual experience." Can be rendered as "S1 provides the input for S2 and the way we use the word 'red' mandates it's COS in each context, so using these words in a particular way is what it means to see red. In the normal case, it does not 'seem' to us that we see red, we just see red and we use 'seem to' to describe cases where we are in doubt."

On p130 “Our question now is: Is there an essential connection between the character of things in the world and the character of our experience?” can be translated as “Are our public language games (S2) useful (consistent) in the description of perception (S1)?”

The first paragraph of Section X ‘The Backward Road’ is perhaps the most important one in the book, as it is critical for all of philosophy to understand that there cannot be a precise 1:1 connection between or reduction of S2 to S1 due to the many ways of describing in language a given event (mental state, i.e., percept, memory etc.). Hence the apparent impossibility of capturing behavior in algorithms (the hopelessness of ‘strong AI’) or of extrapolating from a given neuronal pattern in the brain to the multitudinous acts (language games) we use to describe it. The ‘Backward Road’ is the language (COS) of S2 used to describe S1. Again, I think his failure to use the two systems framework renders this quite confusing if not opaque. Of course, he shares this failing with nearly everyone. Searle has commented on this before and so have others (e.g., Hacker) but it seems to have escaped most philosophers and almost all scientists.

Again, Searle misses the point in Sect XI and X12 –we do not and cannot ‘seem to see’ red or ‘seem’ to have a memory or ‘assume’ a relation between the experience and the word, but as with all the perceptions and memories that constitute the innate axiomatic true-only mental states of System 1, we just have the experience and “it” only becomes ‘red’ etc., when described in public language with this word in this context by System 2. We know it’s red as this is a hinge—an axiom of our psychology that is our automatic action and is the basis for assumptions or judgements or presuppositions and cannot intelligibly be judged, tested or altered. As W pointed out so many times, a mistake in S1 is of an entirely different kind than one in S2. No explanations are possible—we can only describe how it works and so there is no possibility of getting a nontrivial “explanation” of our psychology. As he always has, Searle makes the common and fatal mistake of thinking he understands behavior (language) better than Wittgenstein. After a decade reading W, S and many others I find that W’s ‘perspicuous examples’, aphorisms and dialogues usually provide greater illumination than the wordy disquisitions of anyone else.

“We may not advance any kind of theory, there must not be anything hypothetical in our considerations. We must do away with all explanation, and description alone

must take its place." (PI 109).

"Philosophy simply puts everything before us, and neither explains nor deduces anything." (PI 126) "In philosophy we do not draw conclusions" (PI 599)

"If one tried to advance theses in philosophy it would not be possible to debate them, because everyone would agree to them" (PI 128)

On p135, one way to describe perception is that the event or object causes a pattern of neuronal activation (mental state) whose self-reflexive COS1 is that we see a red rose in front of us, and in appropriate contexts for a normal English speaking person, this leads us to activate muscle contractions which produces the words 'I see a red rose' whose COS2 is that there is a red rose there. Or simply, S1 produces S2 in appropriate contexts. So on p136 we can say S1 leads to S2 which we express in this context by the word 'smooth' which describes (but never 'explains') how the language game of 'smooth' works in this context and we can translate "For basic actions and basic perceptions the intentional content is internally related to the conditions of satisfaction, even though it is characterized non-intentionalistically, because being the feature F perceived consists in the ability to cause experiences of that type. And in the case of action, experiences of that type consists in their ability to cause that sort of bodily movement." as "Basic perceptions (S1) can lead automatically (internally) to basic reflex actions (A1) (i.e., burning a finger leads to withdrawing the arm) which only then enters awareness so that it can be reflected upon and described in language (S2).

On p150, the point is that inferring, like knowing, judging, thinking, is an S2 disposition expressed in language with public COS that are informational (true or false) while percepts are non-informational (see my review of Hutto and Myin's book) automated responses of S1 and there is no meaningful way to play a language game of inferring in S1. Trees and everything we see is S1 for a few hundred msec or so and then normally enter S2 where they get language attached (aspectual shape or seeing as).

Regarding p151 et seq., it is sad that S, as part of his lack of attention to the later W, never seems to refer to what is probably the most penetrating analysis of color

words in W's "Remarks on Colour", which is missing from nearly every discussion of the subject I have seen. The only issue is how do we play the game with color words and with 'same', 'different', 'experience' etc. in this public linguistic context (true or false statements—COS2) because there is no language and no meaning in a private one (S1). So, it does not matter what happens in the mental states of S1 but only what we say about them when they enter S2. It's clear as day that all 7.6 billion on earth have a slightly different pattern of neural activation every time they see red and that there is no possibility for a perfect correlation between S1 and S2. As I noted above it is absolutely critical for every philosopher and scientist to get this clear.

Regarding the brain in a vat (p157), insofar as we disrupt or eliminate the normal relations of S1 and S2, we lose the language games of intentionality. The same applies to intelligent machines and W described this situation definitively over 80 years ago.

"Only of a living being and what resembles (behaves like) a living human being can one say: it has sensations; it sees; is blind; hears; is deaf; is conscious or unconscious." (PI 281)

It is a sign of Wittgenstein's unique genius that even though I have spent many years reading the best philosophers and psychologists of our times, I always have to resist the urge to throw the book down and go back to the master, and when I come to a quote from him it is like coming upon a glass of cold water while trudging through the desert.

Chapter 6: Yes, disjunctivism (like nearly all philosophical theses) is incoherent and the fact that this and other absurdities flourish in his own department and even among some of his former students who got top marks in his Philosophy of Mind classes shows perhaps that, like most, he stopped too soon in his Wittgenstein studies. Also, we all start with default language use which is full of confusions or as W likes to say it is not 'perspicuous'.

On p188, yes veridical seeing and 'knowing' (i.e., K1) are the same since S1 is true-only- i.e., it is the fast, axiomatic, causally self-reflexive, automatic mental states

which can only be described with the slow, deliberative public language games of S2.

On p204 -5 we are reminded that the first and maybe best refutation of mind as machine was given by W in the 30's. Representation is always under an aspect since, like thinking, knowing etc., it is a disposition of S2 with public COS, which is infinitely variable.

Once again, I think the use of the two systems framework greatly simplifies the discussion. If one insists to use 'representation' for 'presentations' of S1 then one should say that R1 have COS1 which are transient neurophysiological mental states, and so totally different from R2, which have COS2 (aspectual shapes) that are public, linguistically expressible states of affairs, and the notion of unconscious mental states is illegitimate since such language games lack any clear sense.

Discussions of blind sight (p209), like those of split brains (commissurotomy) and so much else in cognitive science are typically incoherent due to the fact that the phenomena are new and the usual language games are not applied in a clear and consistent way. Bennett and Hacker, among others, give some excellent discussions of this. Sadly, on p211 Searle for maybe the tenth time in his writings (and endlessly in his lectures) says that 'free will' may be illusory, but as W from the 30's on noted, one cannot coherently deny or judge the 'hinges' such as our having choice, nor that we see, hear, sleep, have hands etc., as these words express the true-only axioms of our psychology, our automatic behaviors that are the basis for action. Libet's famous experiments have been debunked in various ways by philosophers and by other experiments.

On p214 the reflexes referred to are the formerly deliberative conscious actions of S2 which have become automated and part of S1 which I call S2A (automated) as distinct from S2D or those which remain deliberative and conscious.

On p219 bottom and 222 top—it was W in his work, culminating in 'On Certainty' who pointed out that behavior cannot have an evidentiary basis and that its foundation is our animal certainty or way of behaving that is basis of doubt and certainty and cannot be doubted (the hinges of S1). He also noted many times that

a 'mistake' in our basic perceptions (S1) which has no public COS and cannot be tested (unlike those of S2), if it is major or persists, leads not to further testing but to insanity.

P222 section II brings us again to the definitive statement on this foundational issue which W addressed in 'On Certainty'. Searle makes further comments in the 5th of his audiotaped lectures on the Philosophy of Society (see youtube).

Phenomenalism p227 top: See my extensive comments on Searle's excellent essay 'The Phenomenological Illusion' in my review of 'Philosophy in a New Century'. There is not even any warrant for referring to one's private experiences as 'phenomena', 'seeing' or anything else. As W famously showed us, language can only be a public testable activity (no private language). And on p230 the problem is not that the 'theory' 'seems' to be inadequate, but that (like most if not all philosophical theories) it is incoherent. It uses language that has no clear COS. As W insisted, all we can do is describe—it is the scientists who can make theories.

P233. The most basic of the primary qualities or axioms of our psychology are time, space, event, object etc., which following W, we can call the basic hinges, but it does not seem clear how to distinguish these from color, shape, size etc. See the excellent recent papers and books of DMS on this.

The bottom line is that this is classic Searle—superb and probably at least as good as anyone else can produce, but lacking understanding of the fundamental insights of the later Wittgenstein, and with no grasp of the two systems of thought framework, which could have made it brilliant