Review of Wittgenstein -- Rethinking the Inner by Paul Johnston (1993)

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ABSTRACT

Overall Johnston has done a phenomenal job and this book should be required reading for all those interested in behavior.

It is quite striking that although W's observations are fundamental to all study of behavior—linguistics, philosophy, psychology, history, anthropology, politics, sociology, and art, he is not even mentioned in most books and articles, with even the exceptions having little to say, and most of that distorted or flat wrong. There is a flurry of recent interest, at least in philosophy, and possibly this preposterous situation will change, especially due to the continuing efforts of Peter Hacker and Daniele Moyal-Sharrock. I will first offer some comments on philosophy (descriptive psychology) and its relationship to contemporary psychological research as exemplified in the works of Searle (S) and Wittgenstein from the modern two systems of thought perspective as W did 60 years ago.

Those wishing a comprehensive up to date framework for human behavior from the modern two systems view may consult my article The Logical Structure of Philosophy, Psychology, Mind and Language as Revealed in Wittgenstein and Searle 59p(2016). For all my articles on Wittgenstein and Searle see my e-book 'The Logical Structure of Philosophy, Psychology, Mind and Language in Wittgenstein and Searle 367p (2016). Those interested in all my writings in their most recent versions may consult my e-book Philosophy, Human Nature and the Collapse of Civilization - Articles and Reviews 2006-2016 662p (2016).

" But I did not get my picture of the world by satisfying myself of its correctness: nor do I have it because I am satisfied of its correctness. No: it is the inherited background against which I distinguish between true and false." Wittgenstein OC 94

"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)

"Nonsense, Nonsense, because you are making assumptions instead of simply describing. If your head is haunted by explanations here, you are neglecting to remind yourself of the most important facts." Wittgenstein Z 220

"Philosophy simply puts everything before us and neither explains nor deduces anything...One might give the name `philosophy' to what is possible before all new discoveries and inventions." Wittgenstein PI 126

"The aim of philosophy is to erect a wall at the point where language stops anyway." Wittgenstein Philosophical Occasions p187

"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 (this has to do with the Kantian solution to the problem of philosophy)." Wittgenstein CV p10 (1931)

"The greatest danger here is wanting to observe oneself." LWPP1, 459

"…all status functions and hence all of institutional reality, with the exception of language, are created by speech acts that have the logical form of Declarations…the forms of the status function in question are almost invariably matters of deontic powers…to recognize something as a right, duty, obligation, requirement and so on is to recognize a reason for action…these deontic structures make possible desire-independent reasons for action…The general point is very clear: the creation of the general field of desire-based reasons for action presupposed the acceptance of a system of desire-independent reasons for action." Searle PNC p34-49

"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

"Consciousness is causally reducible to brain processes…and consciousness has no causal powers of its own in addition to the causal powers of the underlying neurobiology…But causal reducibility does not lead to ontological reducibility…consciousness only exists *as experienced…*and therefore it cannot be reduced to something that has a third person ontology, something that exists independently of experiences." Searle PNC 155-6

Before commenting in detail on Wittgenstein: Rethinking the Inner (WRTI) I will first offer some comments on philosophy (descriptive psychology) and its relationship to contemporary psychological research as exemplified in the works of Searle (S) and Wittgenstein (W), since I feel that this is the best way to place any commentator on W and behavior in proper perspective.

Wittgenstein is for me easily the most brilliant thinker on human behavior. His work as a whole shows that all behavior is an extension of innate true-only axioms and that our conscious ratiocination (System 2) (S2) emerges from unconscious machinations (System 1) (S1). See "On Certainty"(OC) for his final extended treatment of this idea-and my review thereof for preparation. His corpus can be seen as the foundation for all description of animal behavior, revealing how the mind works and indeed must work. The "must" is entailed by the fact that all brains share a common ancestry and common genes and so there is only one basic way they work, that this necessarily has an axiomatic structure, that all higher animals share the same evolved psychology based on inclusive fitness, and that in humans this is extended into a personality (a cognitive or phenomenological illusion) based on throat muscle contractions (language) that evolved to manipulate others (with variations that can be regarded as trivial).

Arguably, all of W's and S's work and indeed all of philosophy is a development of or variation on these ideas. Another major theme here, and of course in all discussion of human behavior, is the need to separate the genetically programmed automatisms, which underlie all behavior, from the effects of culture. Though few philosophers, psychologists, anthropologists, sociologists etc., explicitly discuss this in a comprehensive way, it can be seen as the major problem they are dealing with. I suggest it will prove of the greatest value to consider all study of higher order behavior as an effort to tease apart not only fast and slow thinking (e.g., perceptions and other automatisms vs. dispositions- S1 and S2--see below), but nature and nurture.

What W laid out in his final period (and throughout his earlier work in a less clear way) are the foundations of evolutionary psychology (EP), or if you prefer, psychology, cognitive linguistics, intentionality, higher order thought or just animal behavior. Sadly, almost nobody seems to realize that his works are a unique textbook of descriptive psychology that is as relevant now as the day it was written. He is almost universally ignored by psychology and other behavioral sciences and humanities, and even those few who have more or less understood him, have not realized the extent of his anticipation of the latest work on EP and cognitive illusions (Theory of Mind, framing, the two selves of fast and slow thinking etc.,--see below). Searle's work expands upon this and provides a stunning

description of higher order social behavior that is possible because of the recent evolution of genes for dispositional psychology, 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.

I suggest the key to W is to regard his corpus as the pioneering effort in deciphering our EP, seeing that he was describing the two selves of S1 and S2 and the multifarious language games of fast and slow thinking, and by starting from his 3rd period works and reading backwards to the Proto-Tractatus. It should also be clear that insofar as they are coherent and correct, all accounts of behavior are describing the same phenomena and ought to translate easily into one another. Thus the recently fashionable themes of "Embodied Mind" and "Radical Enactivism" should flow directly from and into W's work (and they do). However, almost nobody is able to follow his example of avoiding jargon and sticking to perspicuous examples, so even the redoubtable Searle has to be filtered and translated to see that this is true, and even he does not get how completely W has anticipated the latest work in fast and slow, two-self embodied thinking (writing, speaking, acting).

W can also be regarded as a pioneer in evolutionary cognitive linguistics—which can be regarded as the Top Down analysis of the mind and its evolution via the careful analysis of examples of language use in context. He exposes the many varieties of language games and the relationships between the primary games of the true-only unconscious, pre or protolinguistic axiomatic fast thinking of perception, memory and reflexive thinking, emotions and acts (often described as the subcortical and primitive cortical reptilian brain first-self, mirror neuron functions), and the later evolved higher cortical dispositional linguistic conscious abilities of believing, knowing, thinking etc. that constitute the true or false propositional secondary language games of slow thinking that are the network of cognitive illusions that constitute the second-self personality of which we are so enamored. W dissects hundreds of language games showing how the true-only perceptions, memories and reflexive actions of S1 grade into the thinking, remembering, and understanding of 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 perspective illuminates all higher behavior. Dobzhansky famously commented: "Nothing in biology makes sense except in the light of evolution." And nothing in philosophy makes sense except in the light of evolutionary psychology.

The common ideas (e.g., the subtitle of one of Pinker's books "The Stuff of Thought: language as a window into human nature") that language is a window on or some sort of translation of our thinking or even (Fodor) that there must be some other "Language of Thought" of which it is a translation, were rejected by W (and likewise by S), who tried to show, with hundreds of continually reanalyzed perspicacious examples of language in action, that language is the best picture we can ever get of thinking, the mind and human nature, and W's whole corpus can be regarded as the development of this idea. Long before Searle, he rejected the idea that the Bottom Up approaches of physiology, experimental psychology and computation (e.g., Behaviorism, Functionalism, Strong AI, DST, CTM, etc.) could reveal what his Top Down deconstructions of Language Games (LG's) did. The principal difficulties he noted are to understand what is always in front of our eyes (we can now see this as obliviousness to System 1 (roughly what S calls ‘the phenomenological illusion’) and to capture vagueness ("The greatest difficulty in these investigations is to find a way of representing vagueness" LWPP1, 347). And so, speech (i.e., oral muscle contractions, the principal way we interact) is not a window into the mind but is the mind itself, which is expressed by acoustic blasts about past, present and future acts (i.e., our speech using the later evolved Secondary Language Games (SLG's) of the Second Self--the dispositions --imagining, knowing, meaning, believing, intending etc.).

As with his other aphorisms, I suggest one should take seriously W's comment that even if God could look into our mind he could not see what we are thinking--this should be the
motto of the Embodied Mind and, as S makes clear, of Cognitive Psychology. But God could see what we are perceiving and remembering and our reflexive thinking, since these S1 functions are always causal mental states while S2 dispositions are only potentially CMS. This is not a theory but a fact about our grammar and our physiology. S muddies the waters here because he refers to dispositions as mental states as well, but as W did long ago, he shows that the language of causality just does not apply to the higher order emergent S2 descriptions—again not a theory but a description about how language (thinking) works. This brings up another point that is prominent in W but denied by S, that all we can do is give descriptions and not a theory. S insists he is providing theories but of course "theory" and "description" are language games too and it seems to me S's theory is usually W's description—a rose by any other name…. W's point was that by sticking to perspicacious examples that we all know to be true accounts of our behavior, we avoid the quicksand of theories that try to account for ALL behavior (ALL language games), while S wants to generalize and inevitably goes astray (he gives several examples of his own mistakes in PNC). As S and others endlessly modify their theories to account for the multifarious language games they get closer and closer to describing behavior by way of numerous examples as did W.

Some of W's favorite topics in his later second and his third periods are the different (but interdigitating) LG's of fast and slow thinking (System 1 and 2 or roughly Primary Language Games (PLG's) and Secondary Language Games (SLG's) of the Inner and the Outer and the impossibility of private language and the axiomatic structure of all behavior. Verbs like 'thinking', 'seeing' first described S1 functions but as S2 evolved they came to be applied to it as well, leading to the whole mythology of inner resulting from e.g., trying to refer to imagining as if it were seeing pictures inside the brain. The PLG's are utterances by and descriptions of our involuntary, System 1, fast thinking, mirror neuron, true only, nonpropositional, mental states- our perceptions and memories and involuntary acts (including System 1 Truths and UOA1 (Understanding of Agency 1) and Emotions1- such as joy, love, anger) which can be described causally, while the evolutionarily later SLG's are expressions or descriptions of voluntary, System 2, slow thinking, mentalizing neurons, testable true or false, propositional, Truth2 and UOA2 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, just make no sense--see W for many examples and Searle for good disquisitions on this).

It is not possible to describe the automatisms of System 1 in terms of reasons (e.g., `I see that as an apple because...') unless you want to give a reason in terms of EP, genetics, physiology, and as W has demonstrated repeatedly it is meaningless to give "explanations" with the proviso that they will make sense in the future--`Nothing is hidden'--they make sense now or never.

A powerful heuristic is to separate behavior and experience into Intentionality 1 and Intentionality 2 (e.g., Thinking 1 and Thinking 2, Emotions 1 and Emotions 2 etc.) and even into Truths 1 (T only axioms) and Truths 2 (empirical extensions or "Theorems" which result from the logical extension of Truths 1). 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.

Once we understand W, we realize the absurdity of regarding "language philosophy" as a separate study apart from other areas of behavior, since language is just another name for the mind. And, when W says that

understanding behavior is in no way dependent on the progress of psychology (e.g., his oft-quoted assertion "The confusion and barrenness of psychology is not to be explained by calling it a `young science' --but cf. another comment that I have never seen quoted-- "Is scientific progress useful to philosophy? Certainly. The realities that are discovered lighten the philosophers task. Imagining possibilities." (LWPP1, 807). So, he is not legislating the boundaries of science but pointing out that our behavior (mostly speech) is the clearest picture possible of our psychology and that all discussions of higher order behavior are plagued by conceptual confusions.

FMRI, PET, TCMS, iRNA, computational analogs, AI and all the rest are fascinating and powerful ways to extend our innate axiomatic psychology, to provide the physical basis for our behavior and facilitate our analysis of language games which nevertheless remain unexplainable--EP just is this way-- and unchanged. The true-only axioms, most thoroughly explored in 'On Certainty', are W's (and later Searle's) "bedrock" or "background" i.e., evolutionary psychology, which are traceable to the automated true-only reactions of bacteria and their descendants (e.g., humans), which evolved and operate by the mechanism of inclusive fitness (IF)--see Bourke's superb "Principles of Social Evolution".

W insisted that we should regard our analysis of behavior as descriptions rather than explanations, but of course these too are complex language games and one person's description is another's explanation. Beginning with their innate true-only, nonempirical (automated and nonchangeable) responses to the world, animals extend their axiomatic understanding via deductions into further true only understandings ("theorems" as we might call them, but this is a complex language game even in the context of mathematics). Tyrannosaurs and mesons become as unchallengeable as the existence of our two hands or our breathing. This dramatically changes ones view of human nature. Theory of Mind (TOM) is not a theory at all but a group of true-only Understandings of Agency (UOA a term I devised 10 years ago) which newborn animals (including flies and worms if UOA is suitably defined) have and subsequently extend greatly (in higher eukaryotes). However, as I note here, W made it very clear that for much of intentionality there are System 1 and System 2 versions (language games)-the fast unconscious UOA1 and the Slow conscious UOA2 and of course these are heuristics for multifaceted phenomena. Although the raw material for S2 is S1, S2 also feeds back into S1— higher cortical feedback to the lowest levels of perception, memory, reflexive thinking that is a fundamental of psychology. Many of W's examples explore this two way street (e.g., see the discussions of the duck/rabbit and 'seeing as' in Johnston).

The "Theory" of Evolution ceased to be a theory for any normal, rational, intelligent person before the end of the 19th century and for Darwin at least half a century earlier. One CANNOT help but incorporate T. rex and all that is relevant to it into our true only background via the inexorable workings of EP. Once one gets the logical (psychological) necessity of this it is truly stupefying that even the brightest and the best seem not to grasp this most basic fact of human life (with a tip of the hat to Kant, Searle and a few others) which was laid out in great detail in "On Certainty". Incidentally, the equation of logic and our axiomatic psychology is essential to understanding W and human nature (as Daniele Moyal-Sharrock (DMS), but afaik nobody else, points out).

So, most of our shared public experience (culture) becomes a true-only extension of our axiomatic EP and cannot be found mistaken without threatening our sanity. Football or Britney Spears cannot just vanish from my or our memory and vocabulary as these concepts, ideas, events, developed out of and are tied to countless others in the true only network that begins with birth and extends in all directions to encompass much of our awareness and memory. 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 fast thinking axioms and not testable true or false propositions.

I think it is clear that the innate true-only axioms W is occupied with throughout his work, and almost exclusively in OC (his last work `On Certainty'), are equivalent to the fast thinking or System 1 that is at the center of current research (e.g., see Kahneman--"Thinking Fast and Slow", but he has no idea W laid out the framework some 75 years ago), which is involuntary and unconscious and which corresponds to the mental states of perception (including UOA1) and memory and involuntary acts, as W notes over and over in endless examples. One might call these "intracerebral reflexes" (maybe 99% of all our cerebration if measured by energy use in the brain).

Our slow or reflective, more or less "conscious" (beware another network of language games!) second-self brain activity corresponds to what W characterized as "dispositions" or "inclinations", which refer to abilities or possible actions, are not mental states (or not in the same sense), and do not have any definite time of occurrence and/or duration. But disposition words like "knowing", "understanding", "thinking", "believing", which W discussed extensively, have at least two basic uses. One is a peculiar philosophical use (but graduating into everyday uses) exemplified by Moore (whose papers inspired W to write OC), which refers to the true-only sentences resulting from direct perceptions and memory, i.e., our innate axiomatic S1 psychology (`I know these are my hands'), and the S2 one, which is their normal use as dispositions, which can be acted out, and which can become true or false (`I know my way home').

The investigation of involuntary fast thinking has revolutionized psychology, economics (e.g., Kahneman's Nobel prize) 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 presumably not ever of slow System 2 dispositional thinking only, since any System 2 thought or intentional action cannot occur without involving much of the intricate network of "cognitive modules", "inference engines", "intracerebral reflexes", "automatisms", "cognitive axioms", "background" or "bedrock" (as W and later Searle call our EP).

One of W's recurring themes was what is now called Theory of Mind (TOM), or as I prefer Understanding of Agency (UOA), but of course he did not use these terms, which is the subject of major research efforts now. I recommend consulting the work of Ian Apperly, who is carefully dissecting UOA1 and 2 and who has recently become aware of one of the leading Wittgensteinian philosophers Daniel Hutto, since Hutto has now characterized UOA1 as a fantasy (or rather insists that there is no `Theory' nor representation involved in UOA1--that being reserved for UOA2). However, like other psychologists, Apperly has no idea W laid the groundwork for this between 60 and 80 years ago.

Another point made countless times by W was that our conscious mental life is epiphenomenal in the sense that it does not accurately describe nor determine how we act—now a pillar of the behavioral sciences. See ‘The Phenomenological Illusion’ in Searle’s ‘Philosophy in a New Century’ (PNC) for a grand example from philosophy. It is an obvious corollary of W’s and S’s descriptive psychology that it is the unconscious automatisms of System 1 that dominate and describe behavior and that the later evolved conscious dispositions (thinking, remembering, loving, desiring, regretting etc.) are mere icing on the cake. This is most strikingly borne out by the latest experimental psychology, some of which is nicely summarized by Kahneman in the book cited (see e.g., the chapter `Two Selves', but of course there is a huge volume of recent work he does not cite and an endless stream of pop and pro books issuing). It is an easily defensible view that most of the burgeoning literature on cognitive

illusions, automatisms and higher order thought is wholly compatible with and straightforwardly deducible from W.

Regarding my view of W as the major pioneer in EP, it seems nobody has noticed that he very clearly explained several times specifically and many times in passing, the psychology behind what later became known as the Wason Test--long a mainstay of EP research.

Finally, let me suggest that with this perspective, W is not obscure, difficult or irrelevant but scintillating, profound and crystal clear, that he writes aphoristically and telegraphically because we think and behave that way, and that to miss him is to miss one of the greatest intellectual adventures possible.

W showed definitively in 'On Certainty' that there is no possibility of doubting the true-only axiomatic structure of our System 1 perceptions, memories and thoughts, since it is itself the basis for judgment and cannot itself be judged. Sometimes "certainty" is revisable, but this kind of 'certainty', which we might call Certainty2, is the result of extending our axiomatic and nonrevisable certainty (Certainty1) via experience and is utterly different as it is propositional (true or false). This is of course a classic example of the "battle against the bewitchment of our intelligence by language" which W demonstrated over and over again. One word- two (or many) distinct uses.

Again, 'consciousness' is the result of automated System 1 functioning that is 'subjective' in several quite different senses, and not, in the normal case, a matter of evidence but a true-only understanding in our own case and a true-only perception in the case of others.

We again encounter the incessant problems (in philosophy and life) of identical words glossing over the huge differences in LG's of 'belief', 'seeing' etc., as applied to S1 which is composed of mental states in the present only, and S2 which is not. From an evolutionary or Wittgensteinian perspective, is the automatic fast actions of S1 producing the slow dispositions of S2 which are inexorably and universally expanded during personal development into a wide array of automatic unconscious deontic relationships with others, and arbitrarily into cultural variations on them.

To put it in my terms, S1 is composed of unconscious, fast, physical, causal, automatic, nonpropositional, true only mental states –roughly the domain of the Inner, while slow S2 can only coherently be described in terms of reasons for actions that are more or less conscious dispositions to behavior (potential actions) that are or can become propositional (T or F)—roughly the domain of the Outer.

It seems quite obvious to me (as it was to W) that the mechanical view of mind exists for the same reason as nearly all behavior—it is the default operation of our EP which seeks explanations in terms of what we can deliberately think through slowly, rather than in the automated S1, of which we mostly remain oblivious.

However, it is true that most of behavior is mechanical and that The Phenomenological Illusion is of vastly greater reach than Searle describes. It is most striking to me when driving a car on the freeway and suddenly snapping back to S2 awareness startled to realize I have just driven for several minutes with no conscious awareness at all. On reflection, this automatism can be seen to account for almost all of our behavior with just minimal supervision and awareness from S2. I am writing this page and have to think about what to say, but then it just flows out into my hands which type it and by and large it's a surprise to me except when I think of changing a specific sentence. And you read it giving commands to your body to sit still and look at this part of the page but the words just flow into you and some kind of understanding and memory happen but unless you concentrate on a sentence there is only a vague sense of doing anything. A soccer player runs down the field and kicks the ball and thousands of nerve

impulses and muscle contractions deftly coordinated with eye movements, and feedback from prioprioceptive and balance organs have occurred, but there is only a vague feeling of control and high level awareness of the results. S2 is the Chief of Police who sits in his office while S1 has thousands of officers doing the actual work according to laws that he mostly does not even know. Reading, writing or soccer are voluntary acts A2 seen from above but composed of thousands of automatic acts A1 seen from below.

It is a good idea to read at least Chapter 6 of PNC, "The Phenomenological Illusion" (TPI). It is clear as crystal that TPI is due to obliviousness to the automatisms of S1 and to taking the slow conscious thinking of S2 as not only primary but as all there is. This is classic Blank Slate blindness. It is also clear that W showed this some 60 years earlier and also gave the reason for it in the primacy of the true-only unconscious automatic axiomatic network of our innate System 1 which is the source of the Inner. Very roughly, regarding 'observer independent' features of the world as S1 or The Inner, and 'observer dependent' features as S2 or The Outer should prove very revealing. As S notes, the Phenomenologists have the ontology exactly backwards, but of course so does almost everyone due to the defaults of their EP.

Though he was writing in the early 90's when most of the above ideas from Searle and the recent work in psychology were not yet published, Johnston's WRTI does a brilliant job of showing how W disposed of the myth of the Inner via careful examples of language in action. Central to this is one of W's brilliant insights—the impossibility of a private language --and Johnston (J) explains and expands on W's view of this quite well. There cannot be any test for the correctness of our private 'Inner' phenomena, only for Outer public behavior. Our Inner S1 phenomenology (sensations, perceptions, memories etc.) only has a description because, during growth, we generate a language in our more recently evolved higher cortical S2 regions for describing Outer behavior. The language of publicly viewable behaviors of feeling, thinking, knowing etc., are then applied as we grew up as a species and as individuals (ontogeny recapitulates phylogeny) to represent our Inner life. However its only connection with the Inner is the behavior we can see. "Pain" is the inner S1 primitive that we learn to describe with many S2 terms—"My arm is throbbing", "It hurts just to think of it" etc.

J notes that some will object that if our reports and memories are really untestable they would have no value but "This objection misses the whole point of W's argument, for it assumes that what actually happened, and what the individual says happened, are two distinct things. As we have seen, however, the grammar of psychological statements means that the latter constitutes the criteria for the former. If we see someone with a concentrated expression on her face and want to know 'what is going on inside her', then her sincerely telling us that she is trying to work out the answer to a complicated sum tells us exactly what we want to know. The question of whether, despite her sincerity, her statement might be an inaccurate description of what she is (or was) doing does not arise. The source of confusion here is the failure to recognize that psychological concepts have a different grammar from that of concepts used to describe outer events. What makes the inner seem so mysterious is the misguided attempt to understand one concept in terms of another. In fact our concept of the Inner, what we mean when we talk of 'what was going on inside her' is linked not to mysterious inner processes, but to the account which the individual offers of her experience…As processes or events, what goes on inside the individual is of no interest, or rather is of a purely medical or scientific interest (p13-14).

"W's attack on the notion of inner processes does not imply that only the Outer matters, on the contrary; by bringing out the true nature of utterances, he underlines the fact that we aren't just interested in behavior. We don't just want to know that the person's body was in such and such a position and that her features arranged in such and such a way. Rather we are interested in her account of what lay behind this behavior…" (p16-17)

In laying out W's reasoning on the impossibility of private rules or a private language, he notes that "The real problem however is not simply that she fails to lay down rules, but that in principle she could not do so…The point is that without publicly checkable procedures, she could not distinguish between following the rule and merely thinking she is following the rule."

He then quotes one of W's most famous passages which makes this issue crystal clear: "Suppose everyone had a box with something in it: we call it a 'beetle'. No one can look into anyone else's box and everyone says he knows what a beetle is only by looking at *his* beetle.-Here it would be quite possible for everyone to have something different in his box. One might even imaging such a thing constantly changing.-But suppose the word 'beetle' had a use in these people's language? If so, it would not be used as the name of a thing. The thing in the box has no place in the language-game at all, not even as a *something*: for the box might even be empty. No, one can 'divide through' by the thing in the box; it cancels out, whatever it is" (PI P293).

And J nicely sums it up "This approach to the Inner involves a completely new way of understanding our psychological concepts. It also involves rejecting the confusing picture which treats the Inner as though it were a substance whose changes, states and motions the individual observes and reports on. In contrast, W's approach emphasizes that what interests us is the attitudes and behavior of human beings." (p27).

The mythology of the Inner can be seen as another instance of the Phenomenological Illusion so nicely deconstructed by Searle. Oblivious to the automaticity of the Inner System 1, we try, like the Phenomenologists, to explain the fast automatic unconscious behaviors of S1 in terms of the slow, conscious behaviors of S2 and so we use the S2 dispositional language. 'I think I'll go out now' comes out without a thought but it can also come out after thought.

His next chapter "The World of the Senses" discusses the various language games of "seeing" and "seeing as". Though generally quite good he fails to make clear enough to suit me, W's distinction between the true only S1 game of 'seeing' as a mental state with clear duration and the S2 game of "seeing as" that lacks clear duration and which is not really a mental state in the same sense. The perception becomes an object of reflection (slow thinking) in seconds and so is 'seen' and 'seen as' essentially simultaneously by S1 and S2 which feed into each other. His quote shows that W understood this well: "This makes this object into a chimera; a queerly shifting construction. For the similarity to a picture is now impaired." (PI p196), and of course hundreds of pages from W's third period discuss the relations between S1 and S2.

On p55 J makes the point with respect to vision (which has been made many times by W and S in this and other contexts) that the discussion of the Outer is entirely dependent for its very intelligibility on the unchallengeable nature of our direct first person experience of the Inner. The System 2 sceptical doubts concerning mind, will, senses, world, cannot get a foothold without the true only certainties of System 1 and the certainty that you are reading these words now is the basis for judgment, not a thing that can itself be judged. This mistake is one of the most basic and common in all philosophy.

On p81 he makes the point that the impossibility, in the normal case, of checking your statements concerning your dispositions (often but confusingly called 'propositional attitudes') such as what you thought or are feeling far from being a defect of our psychology is exactly what gives these statements interest. "I am tired" tells us how you are feeling rather than giving us another bit of data about the Outer such as your slow movements or the shadows under your eyes.

He then does an excellent job of explaining W's debunking of the idea that meaning or understanding (and all dispositions) are experiences that accompany speech. As W pointed out, just consider the case where you think

you understand, and then find out you did not, to see the irrelevance of any inner experience to meaning, understanding, thinking, believing, knowing etc. The experience which counts is the awareness of the public language game we participate in. Similar considerations dissolve the problem of the 'lightning speed of thought'. "The key is to recognize that thinking is not a process or a succession of experiences but an aspect of the lives of conscious beings. What corresponds to the lightning speed of thought is the individuals ability to explain at any point what she is doing or saying." (p86). And as W says "Or, if one calls the beginning and the end of the sentence the beginning and end of the thought, then it is not clear whether one should say of the experience of thinking that it is uniform during this time or whether it is a process like speaking the sentence itself" (RPP2 p237).

Again: "The individuals account of what she thought has the same grammar as her account of what she intended and of what she meant. What we are interested in is the account of the past she is inclined to give and the assumption that she will be able to give an account is part of what is involved in seeing her as conscious" (p 91). That is, all these disposition verbs are part of our conscious, voluntary S2 psychology.

In "The Complexity of the Inner", he notes that it is ironic that our best way to communicate the Inner is to refer to the Outer but I would say it is both natural and unavoidable. Since there is no private language and no telepathy, we can only contract muscles and by far the most efficient and deep communication is by contracting oral muscles (speech). As W commented in several contexts, it is in plays (or now in TV and films) that we see language (thought) in its purest form.

Dispositions like intending continue as long as we don't change or forget them and thus lack a precise duration as well as levels of intensity and the content is a decision and so it not a precise mental state so in all these respects they are quite different from S1 perceptions, memories and reflexive responses like S1 emotions.

The difference between S1 and S2 (as I put - this was not a terminology available to J or W) also is seen in the asymmetry of the disposition verbs, with the first person use of 'I believe' etc., being (in the normal case of sincere utterance) true-only sentences vs the third person use 'he believes' etc., being true or false evidence-based propositions. One cannot say "I believe it is raining and it isn't" but other tenses such as "I believed it was raining and it wasn't" or the third person "He believes it is raining and it isn't" are OK. As J says: "The general issue at the heart of the problem here is whether the individual can observe her own dispositions…The key to clarifying this paradox is to note that the individuals description of her own state of mind is also indirectly the description of a state of affairs…In other words, someone who says she believes P is thereby committed to asserting P itself…The reason therefor that the individual cannot observe her belief is that by adopting a neutral or evaluatory stance towards it, she undermines it. Someone who said "I believe it's raining but it isn't" would thereby undermine her own assertion. As W notes, there can be no first person equivalent of the third person use of the verb for the same reason that a verb meaning to believe falsely would lack a first person present indicative...the two propositions are not independent, for 'the *assertion* that *this* is going on *inside* me asserts: *this* is going on outside me' (RPP1 p490)" (p154-56). Though not commented on by W or J, the fact that children never make such mistakes as "I want the candy but I don't believe I want it" etc., shows that such constructions are built into our grammar(into our genes) and not cultural add-ons.

He then looks at this from another viewpoint by citing W "What would be the point of my drawing conclusions from my own words to my behavior, when in any case I know what I believe? And what is the manifestation of my knowing what I believe? Is it not manifested precisely in this-that I do not infer my behaviour from my words? That is the fact." (RPP1 p744). Another way to say this is that S1 is the axiomatic true-only basis for cognition and as the non-propositional substrate for determining truth and falsity cannot be intelligibly judged.

He ends the chapter with important comments on the variability within the LG's (within our psychology) and I suggest it be read carefully.

J continues the discussion in "The Inner/Outer Picture" much of which is summed up in his quote from W. "The inner is hidden from us means that it is hidden from us in a sense that it is not hidden from *him*. And it is not hidden from the owner in the sense that *he gives expression to it*, and we, under certain conditions, believe his expression and there error has no place. And this asymmetry in the game is expressed in the sentence that the Inner is hidden from other people." (LWPP2 p36). J goes on: "The problem is not that that inner is hidden but that the language game it involves is very different from those where we normally talk about knowledge." And then he enters into one of W's major themes throughout his life—the difference between man and machine. "But with a human being the assumption is that it is *impossible* to gain an insight into the mechanism. Thus indeterminacy is postulated…I believe unpredictability must be an essential characteristic of the Inner. As also is the endless diversity of expressions." (RPP2 p645 and LWPP2 p65). Again W probes the difference between animals and computers.

J notes that the uncertainties in our LG's are not defects but critical to our humanity. Again W: "[What matters is] not that the evidence makes the feeling (and so the Inner) *merely* probable, but that we treat *this* as *evidence* for something important, that we base a judgement on this involved sort of evidence, and so that such evidence has a special importance in our lives and is made prominent by a concept." (Z p554).

J sees three aspects of this uncertainty as the lack of fixed criteria or fine shades of meaning, the absence of rigid determination of the consequences of inner states and the lack of fixed relationships between our concepts and experience. W:"One can't say what the essential observable consequences of an inner state are. When, for example, he really is pleased, what is then to be expected of him, and what not? There are of course such characteristic consequences, but they can't be described in the same way as reactions which characterize the state of a physical object." (LWPP2 p90). J "Here her inner state is not something we cannot know because we cannot penetrate the veil of the Outer. Rather there is nothing determinate to know." (p195).

In his final chapter he notes that our LG's are not likely to change regardless of scientific progress. "Although it is conceivable that the study of brain activity might turn out to be a more reliable predictor of human behavior, the sort of understanding of human action it gave would not be the same as that involved in the language game on intentions. Whatever the value of the scientists discovery, it could not be said to have revealed what intentions really are." (p213).

This indeterminateness leads to the notion that correlation of brain states with dispositions seems unlikely. "The difficulty here is that the notion of one thought is a highly artificial concept. How many thoughts are there in the Tractatus? And when the basic idea for it struck W, was that one thought or a rash of them? The notion of intentions creates similar problems…These subsequent statements can all be seen as amplifications or explanations of the original thought, but how are we to suppose this relates to the brain state? Are we to imagine that it too will contain the answer to every possible question about the thought?... we would have to allow that two significantly different thoughts are correlated with the same brain state…words may in one sense be interchangeable and in another sense not. This creates problems for the attempt to correlate brain states and thoughts…two thoughts may be the same in one sense and different in another…Thus the notion of one thought is a fragile and artificial one and for that reason it is hard to see what sense it could make to talk of a one to one correlation with brain states." (p218-219).

Likewise, W denies that memory consists of traces in the nervous system. “Here the postulated trace is like the inner clock, for we no more infer what happened from a trace than we consult an inner clock to guess the time.” He then notes an example from W (RPP1 p908) of a man jotting marks while he reads and who cannot repeat the text without the marks but they don’t relate to the text by rules…”The text would not be *stored up* in the jottings. And why should it be stored up in our nervous system?” and also “…nothing seems more plausible to me than that people will some day come to the definite opinion that there is no copy in either the physiological or the nervous systems which corresponds to a particular thought or a particular idea of memory” (LWPP1 p504). This implies that there can be psychological regularities to which no physiological regularities correspond; and as W provocatively adds ‘If this upsets our concepts of causality, then it is high time they were upset.’” (RPP1 p905)…’Why should not the initial and the terminal states of a system be connected by a natural law which does not cover the intermediary state? (RPP1 p909)...[It is quite likely that] there is no process in the brain correlated with associating or with thinking, so that it would be impossible to read off thought processes from brain processes…Why should this order, so to speak, not proceed out of chaos?...as it were, causelessly; and there is no reason why this should not really hold for our thoughts, and hence for our talking and writing.’(RPP1 p903)…But must there be a physiological explanation here? Why don’t we just leave explaining alone?-but you would never talk like that if you were examining the behavior of a machine! –Well who says that a living creature, an animal body, is a machine in this sense?’” (RPPI p918)(p 220-21).

Of course one can take these comments variously, but one way is that W anticipates the rise of chaos theory, embodied mind and self organization in biology. Since uncertainty, chaos and unpredictability are standard doctrine now, from subatomic to molecular scale, and in planetary dynamics (weather etc.,) and cosmology, why should the brain be an exception?

J’s final section on Freud is ok but not especially interesting and the appendix on Seeing As and Perception likewise. I feel that there is a great advantage in treating these topics from the modern two systems perspective and that this is basically what W did 60 years ago. Overall J has done a phenomenal job and this book should be required reading for all those interested in behavior.

It is quite striking that although W’s observations are fundamental to all study of behavior—linguistics, philosophy, psychology, history, anthropology, politics, sociology, and art, he is not even mentioned in most books and articles, with even the exceptions having little to say, and most of that distorted or flat wrong. There is a flurry of recent interest, at least in philosophy, and possibly this preposterous situation will change, but probably not much.

To show this framework and how it relates to a contemporary view of intentionality I have produced the following table. Those wishing a comprehensive up to date account of Wittgenstein, Searle and their analysis of behavior from the modern two systems view may consult my article The Logical Structure of Philosophy, Psychology, Mind and Language as Revealed in Wittgenstein and Searle (2016) from which it is taken.

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.

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.

System 1 is involuntary, reflexive or automated "Rules" R1 while Thinking (Cognition) has no gaps and is voluntary or deliberative "Rules" R2 and Willing (Volition) has 3 gaps (see Searle)

	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								
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**