

The Essence of Philosophy and Psychology in 57 quotes from Ludwig Wittgenstein, John Searle and Charles Darwin

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ABSTRACT

Since philosophical problems are the result of our innate psychology, or as Wittgenstein put it, due to the lack of perspicuity of language, they run throughout human discourse and behavior, so there is endless need for philosophical analysis, not only in the 'human sciences' of philosophy, sociology, anthropology, political science, psychology, history, literature, religion, etc., but in the 'hard sciences' of physics, mathematics, and biology. It is universal to mix the language game questions with the real scientific ones as to what the empirical facts are. Scientism is ever-present and Wittgenstein, arguably the greatest intuitive psychologist of all time, has laid it before us long ago, beginning with the Blue and Brown Books in the early 1930's. I present 57 quotes from Wittgenstein, Searle and Darwin, which provide insight into philosophy and psychology and which lead to a picture of the logical structure of language(thought, intentionality) which is summarized in two tables which result from the analysis of language games and of decision making. I then make some remarks on the tables. These ideas are discussed in greater detail in my other books and papers.

"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

"The origin and the primitive form of the language game is a reaction; only from this can more complicated forms develop. Language--I want to say--is a refinement. 'In the beginning was the deed.'" CV p31

"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

"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

"If we keep in mind the possibility of a picture which, though correct, has no similarity with its object, the interpolation of a shadow between the sentence and reality loses all point. For now, the sentence itself can serve as such a shadow. The sentence is just such a picture, which hasn't the slightest similarity with what it represents." BBB p37

"Many words then in this sense then don't have a strict meaning. But this is not a defect. To think it is would be like saying that the light of my reading lamp is no real light at all because it has no sharp boundary." BBB p27

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

"Imagine a person whose memory could not retain what the word 'pain' meant- so that he constantly called different things by that name-but nevertheless used the word in a way fitting in with the usual symptoms and presuppositions of the word 'pain'-in short he used it as we all do." PI p271

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

"There is a kind of general disease of thinking which always looks for (and finds) what would be called a mental state from which all our acts spring, as from a reservoir." BBB p143

"And the mistake which we here and in a thousand similar cases are inclined to make is labeled by the word "to make" as we have used it in the sentence "It is no act of insight which makes us use the rule as we do", because there is an idea that "something must make us" do what we do. And this again joins onto the confusion between cause and reason. We need have no reason to follow the rule as we do. The chain of reasons has an end." Wittgenstein BBB p143

"What we are supplying are really remarks on the natural history of man, not curiosities; however, but rather observations on facts which no one has doubted and which have only gone unremarked because they are always before our eyes." Wittgenstein RFM I p142

"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 more narrowly we examine actual language, the sharper becomes the conflict between it and our requirement. (For the crystalline purity of logic was, of course, not a result of investigation: it was a requirement.)" PI 107

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

"For the clarity that we are aiming at is indeed complete clarity. But this simply means that the philosophical problems should completely disappear." PI p133

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

"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

"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

"Superstition is nothing but belief in the causal nexus." TLP 5.1361

"Now if it is not the causal connections which we are concerned with, then the activities of the mind lie open before us." "The Blue Book" p6 1933

"The basic form of the game must be one in which we act." Wittgenstein Philosophical Occasions p397

"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. PI p308

"If God looked into our minds he would not be able to see there whom we were thinking of." Wittgenstein PI p217

"Ought the word "infinite" to be avoided in mathematics? Yes: where it appears to confer a meaning upon the calculus; instead of getting one from it." RFM revised edition (1978) p141

"Time and again the attempt is made to use language to limit the world and set it in relief—but it can't be done. The self-evidence of the world expresses itself in the very fact that language can and only does refer to it. For since language only derives the way in which it means, its meaning, from the world, no language is conceivable that does not represent this world." Wittgenstein Philosophical Remarks S47

"The limits of my language mean the limits of my world" TLP

"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

"But you cannot explain a physical system such as a typewriter or a brain by identifying a pattern which it shares with its computational simulation, because the existence of the pattern does not explain how the system actually works as a physical system. ...In sum,

the fact that the attribution of syntax identifies no further causal powers is fatal to the claim that programs provide causal explanations of cognition... There is just a physical mechanism, the brain, with its various real physical and physical/mental causal levels of description." Searle Philosophy in a New Century (PNC) p101-103

"All inference takes place a priori. The events of the future cannot be inferred from those of the present. Superstition is the belief in the causal nexus. The freedom of the will consists in the fact that future actions cannot be known now. We could only know them if causality were an inner necessity, like that of logical deduction. -- The connexion of knowledge and what is known is that of logical necessity. ("A knows that p is the case" is senseless if p is a tautology.) If from the fact that a proposition is obvious to us, it does not follow that it is true, then obviousness is no justification for belief in its truth." TLP 5.133-- 5.1363

"Speaker meaning... is the imposition of conditions of satisfaction on conditions of satisfaction. The capacity to do this is a crucial element of human cognitive capacities. It requires the ability to think on two levels at once, in a way that is essential for the use of language. At one level, the speaker intentionally produces a physical utterance, but at another level the utterance represents something. And the same duality infects the symbol itself. At one level, it is a physical object like any other. At another level, it has a meaning; it represents a type of a state of affairs" MSW

"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

"Could a machine process cause a thought process? The answer is: yes. Indeed, only a machine process can cause a thought process, and 'computation' does not name a machine process; it names a process that can be, and typically is, implemented on a machine." Searle PNC p73

"...the characterization of a process as computational is a characterization of a physical system from outside; and the identification of the process as computational does not identify an intrinsic feature of the physics, it is essentially an observer relative characterization." Searle PNC p95

"The Chinese Room Argument showed that semantics is not intrinsic to syntax. I am now making the separate and different point that syntax is not intrinsic to physics." Searle PNC p94

"The attempt to eliminate the homunculus fallacy through recursive decomposition fails, because the only way to get the syntax intrinsic to the physics is to put a homunculus in the physics." Searle PNC p97

...once you have language, it is inevitable that you will have deontology because there is no way you can make explicit speech acts performed according to the conventions of a language without creating commitments. This is true not just for statements but for all speech acts" MSW p82

"The more narrowly we examine actual language, the sharper becomes the conflict between it and our requirement. (For the crystalline purity of logic was, of course, not a result of investigation: it was a requirement.)" PI 107

"...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

"In short, the sense of 'information processing' that is used in cognitive science is at much too high a level of abstraction to capture the concrete biological reality of intrinsic intentionality...We are blinded to this difference by the fact that the same sentence 'I see a car coming toward me,' can be used to record both the visual intentionality and the output of the computational model of vision...in the sense of 'information' used in cognitive science, it is simply false to say that the brain is an information processing device." Searle PNC p104-105

"Can there be reasons for action which are binding on a rational agent just in virtue of the nature of the fact reported in the reason statement, and independently of the agent's desires, values, attitudes and evaluations?...The real paradox of the traditional discussion is that it tries to pose Hume's guillotine, the rigid fact- value distinction, in a vocabulary, the use of which already presupposes the falsity of the distinction." Searle PNC p165- 171

"...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 satisfactions, it turns out that all intentionality is a matter of propositions." Searle PNC p193

"The first four types of speech acts have exact analogues in intentional states: corresponding to Assertives are beliefs, corresponding to Directives are desires, corresponding to Commissives are intentions and corresponding to Expressives is the whole range of emotions and other intentional states where the Presup fit is taken for granted. But there is no prelinguistic analog for the Declarations. Prelinguistic intentional states cannot create facts in the world by representing those facts as already existing. This remarkable feat requires a language" Searle MSW p69

"...once you have language, it is inevitable that you will have deontology because there is no way you can make explicit speech acts performed according to the conventions of a language without creating commitments. This is true not just for statements but for all speech acts" Searle MSW p82

"So, status functions are the glue that hold society together. They are created by collective intentionality and they function by carrying deontic powers...With the important exception of language itself, all of institutional reality and therefor in a sense all of human civilization is created by speech acts that have the logical form of Declarations...all of human institutional reality is created and maintained in existence by (representations that have the same logical form as) Status Function Declarations, including the cases that are not speech acts in the explicit form of Declarations." Searle MSW p11-13

"Beliefs, like statements, have the downward or mind (or word)-to-world direction offit. And desires and intentions, like orders and promises, have the upward or world-to-mind (or word) direction offit. Beliefs or perceptions, like statements, are supposed to represent how things are in the world, and in that sense, they are supposed to fit the world; they have the mind-to-world direction offit. The conative-volitional states such as desires, prior intentions and intentions-in-action, like orders and promises, have the world-to-mind direction offit. They are not supposed to represent how things are but how we would like them to be or how we intend to make them be...In addition to these two faculties, there is a third, imagination, in which the propositional content is not supposed to fit reality in the way that the propositional contents of cognition and volition are supposed to fit...the world-relating commitment is abandoned and we have

a propositional content without any commitment that it represent with either direction offit." Searle MSW p15

"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." (P.M.S Hacker--Passing by the naturalistic turn: on Quine's cul-de-sac- p15-2005)

"Just as in intentional states we can make a distinction between the type of state...and the content of the state...so in the theory of language we can make a distinction between the type of speech act it is...and the propositional content...we have the same propositional content with different psychological mode in the case of the intentional states, and different illocutionary force or type in the case of the speech acts. Furthermore, just as my beliefs can be true or false and thus have the mind-to-world direction offit, so my statements can be true or false and thus have the word-to-world direction offit. And just as my desires or intentions cannot be true or false but can be in various ways satisfied or unsatisfied, so my orders and promises cannot be true or false but can be in various ways satisfied or unsatisfied—we can think of all the intentional states that have a whole propositional content and a direction offit as representations of their conditions of satisfaction. A belief represents its truth conditions, a desire represents its fulfillment conditions, an intention represents its carrying out conditions...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 MSWp28-32

"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

"If I wanted to doubt whether this was my hand, how could I avoid doubting whether the word 'hand' has any meaning? So that is something I seem to know, after all." Wittgenstein - On Certainty p48

"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

"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"—Horwich 'Wittgenstein's Metaphilosophy'.

"He who understands baboon would do more towards metaphysics than Locke" Charles Darwin 1838 Notebook M

FROM THE ANALYSIS OF LANGUAGE GAMES

	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

I give detailed explanations of this table in my other writings.

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 offit" and "world to mind direction offit" 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 my terminology in this table.

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. It is critical to note that this table is only a highly simplified context-free heuristic and each use of a word must be examined in its context. The best examination of context variation is in Peter Hacker's recent 3 volumes on Human Nature, which provide numerous tables and charts that should be compared with this one.

INTENTIONALITY can be viewed as personality or as the Construction of Social Reality (the title of Searle's well known book) and I will give some perspective.

About a million years ago primates evolved the ability to use their throat muscles to make complex series of noises (i.e., speech) that by about 100,000 years ago had evolved to describe present events (perceptions, memory, reflexive actions with basic utterances that can be described as Primary Language Games (PLG's) describing System 1—i.e., the fast unconscious automated System One, true-only mental states with a precise time and location). We gradually developed the further ability to encompass displacements in space and time to describe memories, attitudes and potential events (the past and future and often counterfactual, conditional or fictional preferences, inclinations or dispositions) with the Secondary Language Games (SLG's) of System Two- slow conscious true or false propositional attitudinal thinking, which has no precise time and are abilities and not mental states). Preferences are Intuitions, Tendencies, Automatic Ontological Rules, Behaviors, Abilities, Cognitive Modules, Personality Traits, Templates, Inference Engines, Inclinations, Emotions, Propositional Attitudes, Appraisals, capacities, hypotheses. Emotions are Type 2 Preferences (W RPP2 p148). "I believe", "he loves", "they think" are descriptions of possible public acts typically displaced in spacetime. My first-person statements about myself are true-only (excluding lying) while third person statements about others are true or false (see my review of Johnston 'Wittgenstein: Rethinking the Inner').

"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 this is a misleading phrase since believing, intending, knowing, remembering etc., are often not propositions nor attitudes, as has been shown e.g., by W and by Searle (e.g., *Consciousness and Language* p118). They are intrinsic, observer independent mental representations (as opposed to presentations or representations of System 1 to System 2 – Searle-C+L p53). They are potential acts displaced in time or space while the evolutionarily more primitive System One mental states of perceptions memories and reflexive actions are always here and now. This is one way to characterize System 2 and System 3--the second and third major advances in vertebrate psychology after System 1--the ability to represent 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 are potential or unconscious mental states (Searle-- *Phil Issues* 1:45-66(1991).

Perceptions, memories and reflexive (automatic) actions can be described as S1 or 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. 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). Dispositions also 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, Hutto, Read, Hacker etc.,). Wittgenstein can be regarded as the founder of evolutionary psychology, contextualism, enactivism, and the two systems framework, and his work a unique investigation of the functioning of our axiomatic System 1 psychology and its interaction with System 2. Though few have understood it well (and arguably nobody fully to this day) it was further developed by a few --above all by John Searle, who made a simpler version of the table below 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), cognitive linguistics or the logical structure of Higher Order Thought (HOT), and in my view the single most important work in philosophy (descriptive psychology), and thus in the study of behavior. See my article *The Logical Structure of Philosophy, Psychology, Mind and Language as Revealed in Wittgenstein and Searle* (2016) and the recent work of Daniele Moyal-Sharrock(DMS).

Perception, Memory, Reflexive actions and Emotion are primitive partly Subcortical Involuntary Mental States, described in PLG's, in which the mind automatically fits the world (is Causally Self Reflexive--Searle) --the unquestionable, true-only, axiomatic basis of rationality over which no control is possible). Emotions evolved to make a bridge between desires or intentions and actions. Preferences, Desires, and Intentions are descriptions of slow thinking conscious Voluntary Abilities--described in SLG's-- in which the mind tries to fit 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 SLG's (The Phenomenological Illusion - TPI of 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 working memory and so we use consciously apparent but

typically incorrect reasons to explain behavior (the Two Selves of current research). Beliefs and other Dispositions are 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-IAA- Searle) plus acts which try to match the world to the thoughts—world to mind direction of fit—cf. Searle e.g., C+L p145, p190).

Now that we have a reasonable start on the Logical Structure of Rationality (the Descriptive Psychology of Higher Order Thought) laid out, we can look at the table of Intentionality that results from this work, which I have constructed over the last few years. It is based on a much simpler one from Searle, which in turn owes much to Wittgenstein. I have also present in modified form a table being used by current researchers in the psychology of thinking processes, which are evidenced in the last 9 rows. It should prove interesting to compare these with tables in Peter Hacker's 3 recent volumes on Human Nature. I offer these tables as heuristics for describing behavior that I find more complete and useful than any other framework I have seen and not as a final or complete analysis, which would have to be three dimensional with hundreds (at least) of arrows going in many directions with many (perhaps all) pathways between S1 and S2 being bidirectional. Also, the very distinction between S1 and S2, cognition and willing, perception and memory, between feeling, knowing, believing and expecting etc. are arbitrary-- that is, as W demonstrated, all words are contextually sensitive and most have several utterly different uses (meanings or COS).

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 S1 such as perceptions do not have COS. In other writings S 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 presentations). To repeat this critical distinction, 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).

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).

Thus, I have changed his 'Direction of Fit' to 'Cause Originates From' and his 'Direction of Causation' to 'Causes Changes In'. 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).

Many complex charts have been published by scientists but I find them of minimal utility when thinking about behavior (as opposed to thinking about brain function). Each level of description may be useful in certain contexts but I find that being coarser or finer limits usefulness.

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) and from the 50's to the present by his successors Searle, Moyal-Sharrock, Read, Baker, 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), 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 books dealing with Wittgenstein, Searle and others on academia.edu, philpapers.org, researchgate.net, libgen.io, b-ok.org etc.

Wittgenstein's wholly novel ideas and unique super-Socratic dialogues and telegraphic writing, coupled with his often solitary, almost solipsistic lifestyle, and premature death in 1951, resulted in a failure to publish anything of his later thought during his lifetime and only slowly has his huge *nachlass* of some 20,000 pages been published- a project which continues to this day. The only complete edition of the largely German *nachlass* was first issued by Oxford in 2000 with Intelix now publishing it, as well as all the 14 Blackwell English language books on a searchable CD. The Blackwell CD costs ca. \$100 but the Oxford CD is over \$1000 or over \$2000 for the set including the images of the original manuscripts. They can however be obtained via interlibrary loan and also, like most books and articles are now freely available on the net (libgen.io, b-ok.org and on p2p). The searchable CDROM of his English books as well as that of the entire German *nachlass*, is now on several sites on the net and the Bergen CD is due for a new edition ca 2021-- <http://wab.uib.no/aloids/Pichler%2020170112%20Geneva.pdf> . And of course most academic articles and books are now free online on b-ok.org and libgen.io.

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 world), 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.

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 (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, DISPOSITIONS, INCLINATIONS :(X might become True)

CLASS 1: PROPOSITIONAL (True or False) PUBLIC ACTS of 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 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. 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., relate 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")—nonrational 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. Thus, "propositional attitude" is an incorrect term for normal intuitive deliberative S2D or automated S2A speech and action. 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.

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).

Nonreflective 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).