

Folk Psychology and Legal Systems

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(relatively long abstract)

0 Introduction

When we think people in a legal system, it has been supposed that they are rational and have minds as belief-desire systems. Also legal systems are supposed to change as the societies change. Reflecting on these presuppositions, we can easily find folk psychology and the history of our world as the basis of legal systems. Legal systems presuppose the agent having beliefs and desires. On the other hand, cognitive psychology is one of the scientific psychological theories, and legal systems considered in this project include cognitive psychology as an important part. Then has folk psychology to be reduced to scientific psychology and as a result have several concepts like belief, desire, pain, and so on to be eliminated? We think here some of them which are closely related to legal systems.

1 Presuppositions in cognitive science

The central hypothesis of cognitive science is that thinking can best be understood in terms of representational structures in the mind and computational procedures that operate on those structures. Most work in cognitive science assumes that the mind has mental representations analogous to data structures, and computational procedures. The dominant mind-computer analogy in cognitive science has taken on a novel twist from the use of the brain. Connectionists have proposed novel ideas about representation and computation that use neurons and their connections. Cognitive science then works with a complex 3-way analogy among the mind, the brain, and computers. There is no single computational model of mind, since different kinds of computers and programming approaches suggest different ways in which the mind might work.

The claim that human minds work by representation and computation is an empirical conjecture and might be wrong. So there are several philosophical critics such as Dreyfus and Searle. They have claimed that this approach is fundamentally mistaken. Some of their points are:

1 Emotions and consciousness are neglected in cognitive science, 2 Cognitive science disregards the significant role of physical environments, 3 Human thought is inherently social in ways that cognitive science ignores, 4 The mind is a dynamical system, not a computational system.

We will consider some of them in the following sections.

2 Folk psychology: qualia as an example

Feelings and conscious experiences are now discussed a lot in philosophy. Philosophers often use the term 'qualia' to refer to the introspectively accessible, phenomenal aspects of our mental lives. In this sense, it is difficult to deny that there are qualia. Disagreement typically centers on which mental states have qualia, whether qualia are intrinsic qualities, and how qualia relate to the physical world.

The literature on qualia is filled with thought-experiments. Perhaps the most famous of these is the case of Mary (Jackson). One popular explanation is that there is a realm of subjective, phenomenal qualities associated with color, qualities the intrinsic nature of which Mary comes to discover, as she herself undergoes the various new color experiences. Before she left her room, she only knew the objective, physical basis of those subjective qualities. But this explanation is not available to the physicalist. If what it is like for Mary to experience red is the same as some physical quality, then she already knows that in her room. For Mary knows all the pertinent physical facts. What, then, can the physicalist say?

One view that has been gaining adherents of late is that there is a real gap, but it has no consequences for the nature of consciousness. On this view, there is nothing in the gap that should lead us to any bifurcation in the world between experiences and feelings on the one hand and physical or functional phenomena on the other. There aren't two sorts of natural phenomena: the irreducibly subjective and the objective. The explanatory gap derives from the special character of phenomenal concepts. Representationalists about qualia are typically also externalists about representational content. What a given experience represents is metaphysically determined, in part, by factors in the external environment. If these differences in content are of the right sort then, according to the wide representationalist, twins cannot fail to differ with respect to the phenomenal character of their experiences. What makes for a difference in representational content in duplicates is some external difference. Wide representationalists think qualia aren't in the head. The Cartesian-based picture of experience and its relation to the world is thus turned upside down. Qualia are not intrinsic qualities of which their subjects are directly aware, qualities that are necessarily shared by internal duplicates however different their environments may be. Rather, they are extrinsic qualities fixed by certain external relations between individuals and their environments.

3 What is folk psychology ?

We can find two different meanings that folk psychology has: (1) commonsense psychology that explains human behavior in terms of beliefs, desires,

intentions, fears and so on; (2) an interpretation of such everyday explanations as part of a folk theory, comprising generalizations employing concepts like belief, desire, and so on. Folk-psychology(2), called the ‘theory-theory’, is a philosophical account of folk-psychology(1). Folk-psychology(1) concerns the conceptual framework of explanations of human behavior: If the explanatory framework of folk-psychology(1) is correct, then “because Estela wants the baby to sleep,” which employs the concept of wanting, may be a good explanation of Estela’s turning the TV off. Folk-psychology(2) concerns how folk-psychological(1) explanations are to be interpreted: If folk-psychology(2) is correct, then “because Estela wants the baby to sleep” is an hypothesis that Estela had an internal state of wanting the baby to sleep and that state caused Estela to turn the TV sound off. There are two hot debates in folk psychology.

Theory or simulation?: What are people doing when they explain behavior in terms of beliefs, desires and so on? Some philosophers argue that folk psychology (1) is a matter of simulation. To use commonsense psychology is to exercise a skill; to attribute a belief is to project oneself into the situation of the believer. The dominant view, however, is that users of concepts like believing, desiring (folk-psychology(1)) are deploying a theory (folk-psychology(2)): To attribute a belief is to make an hypothesis about the internal state of the putative believer.

True or false?: To what extent is the commonsense belief/desire framework correct? To what extent will science vindicate commonsense psychology? The question of scientific vindication arises when commonsense psychology is understood as folk-psychology(2). On one side are intentional realists like Fodor, who argue that science will vindicate the conceptual framework of commonsense psychology. On the other side are eliminative materialists like Churchlands, who argue that as an empirical theory, commonsense psychology is susceptible to replacement by a better theory with radically different conceptual resources. Just as other folk theories have been overthrown by scientific theories, they think we should be prepared for the overthrow of folk psychology by a scientific theory.

The question of scientific vindication, however, does not by itself decide the issue. To see this, consider an argument for eliminative materialism (EM):

- a. Folk psychology will not be vindicated by a physicalistic theory.
- b. Folk psychology is correct if and only if it is vindicated by a physicalistic theory. So,
- c. Folk psychology is incorrect.

If premise (b) refers to folk-psychology(2), then premise (b) is plausible; but then the conclusion would

establish only that commonsense psychology interpreted as a theory is incorrect. However, if premise (b) refers to folk-psychology (1), then premise (b) is probably false. If folk psychology is not a putative scientific theory in the first place, then there is no reason to think that a physicalistic theory will reveal it to be incorrect. So, the most that (EM) could show would be that if the theory-theory is the correct philosophical account of folk-psychology(1), then folk psychology is a false theory.

4 Folk psychology as an internal theory

Fodor argues for what is known as “the language of thought hypothesis”. This hypothesis has two components: (a) beliefs, desires, and other intentional states are physically real representations that exist in the brain and are the causes of our behaviors; and (b) these states have constituent structure which resembles the structure of the intentional objects associated with those states. Suppose I form the intention to raise my arm. According to the hypothesis, this means (a) that I form a mental representation that has as its semantic content that I raise my arm, a representation that is an intention by virtue of the fact that, all else being equal, it will cause me to try to make it true that I raise my arm, and (b) that this representation has constituent parts, each of which is a representation in its own right. One part refers to my arm, another to the act of raising, and another refers to myself.

Fodor gives three arguments for believing in the hypothesis and among them the following is the most important. That is the argument from productivity and systematicity. (a) Productivity. There is no fixed limit on the range of mental states human beings can have. This fact is only explicable if you assume that thinking occurs in a kind of language with combinatorial properties. (b) Systematicity. The capacity for producing or understanding certain linguistic expressions is inextricably linked to the capacity for producing or understanding other, similar linguistic expressions.

[Dennett’s intentional stance]

The intentional stance is the strategy of interpreting the behavior of an entity by treating it as if it were a rational agent. The distinctive features of the intentional stance can be seen by contrasting it with two more basic stances or strategies of prediction, the physical stance, and the design stance. The physical stance is simply the standard laborious method of the physical sciences, in which we use whatever we know about the laws of physics and the physical constitution of the things in question to devise our prediction.

Clocks, being designed objects, are also amenable to a prediction from the design stance. Suppose I think a novel object as a clock: I can quickly reason that if I

depress a few buttons, then some hours later the clock will make a noise. I don't need to work out the specific physical laws that explain this regularity. I simply assume that it has a particular design and that it will function properly, as designed. Design-stance predictions are riskier than physical-stance predictions, because of the extra assumptions that an entity is designed. Designed things are occasionally misdesigned, and sometimes they break.

An even riskier stance is the intentional stance, a subspecies of the design stance, in which the designed thing is an agent of sorts.

5 External theories

One can perceive an object without knowing or understanding what it is. Perceiving something, and recognizing what it is, are two different processes. Meaningful perception embodies a judgment or belief, some degree of recognition or identification of what one is perceiving. Meaningful perception requires more than good eyesight. Dretske contrasts this with what he calls sense perception; sense perception vs. meaningful perception is analogous to perception of objects vs. perception of facts about objects.

What does visual perception perceive? Dretske's solution is to draw a principled distinction between sense perception and meaningful perception. It seems preferable, therefore, to distinguish between seeing objects and seeing facts by distinguishing two forms of perception, two ways of seeing. The study of early vision is the study of sense perception. The study of later vision is the study of meaningful perception.

What objects do we see? Insofar as we regard the image appearing on our television as the primary, or real, object of perception, we regard facts about these images as cognitively primary. Facts about the people and events being represented are secondary. So, we need to study the structure of sense perception before we can make sense of the structure of meaningful perception. Discussions of these issues are often clouded by failure to appreciate the difference between meaningful perception and sense perception.

Millikan claims that a thing's function is that which it was designed to do, what it would do if it performed properly in the environment in which it evolved. When choosing from among the infinity of possible functions to ascribe to something, choose the one the performance of which enhanced the survival value of the organism through its evolutionary history. A representation, Millikan claims, is a thing that can only perform its function when it corresponds to some state of the world. To understand representations correctly we must consider three things: the representation producer, the representation consumer, and the representation itself. The content of a

representation depends upon what the representation-consuming part of the organism takes the representation to represent. To determine the content of a representation we must focus on the normal conditions. The function of a representation producer is to produce representations that correspond to aspects of the normal environment. The representation producer will fail most of the time in historically non-normal circumstances. It is a false representation. As for the representation itself, Millikan holds something like Wittgenstein's picture theory. The representation must picture what it indicates. They must admit of significant transformations which accord with the variations of the thing that is represented.

In order to argue for a correspondence theory of truth, Millikan claims that our language abilities are a set of biological mechanisms whose function it is to cause us to conform to rules. If viewed as such, grasping correspondence truth rules is no more problematic than grasping verificationist ones. She differentiates between proximal rules and distal rules. A proximal rule is one the following of which depends only upon incoming sensory information and an intact physiology. Following a distal rule depends, in addition, upon the actual state of the world. In many cases, the function of proximal rules is to effect the following of distal rules, while the function of distal rules is to aid the organism in surviving in its normal environment. Verificationist truth rules, such as those favored by anti-realists, must be assertibility rules. These rules, Millikan claims, are proximal rules. Correspondence truth rules are distal rules because they are based upon conditions in the world and not just incoming sensory information. Imagine that truth rules are distal correspondence rules. Then they must be backed by proximal assertibility rules, whose function it is to cause conformity with the distal truth rules. Following the proximal rules often does not lead to conformity to the distal rules because distal rules refer to factors outside the individual. So, conforming to proximal assertibility rules will often fail to lead to conformity to distal correspondence truth rules. This accounts for the normativity of the notion of truth. The conditions in which biological systems function always make reference to external factors; that is, those conditions that have been present throughout evolutionary history when the object fulfilled its biologically proper function. So, proximal assertibility rules which make no reference to external conditions could not define semantics, they must be the more or less reliable means used to follow correspondence truth rules. Millikan concludes from the above that if we can grasp assertibility rules, we can also grasp correspondence rules.

Meaning rationalism, she claims, consists of the claims that identity and difference of meaning, and meaningfulness are all epistemically given to the

thinker. Millikan describes three varieties of meaning rationalism, differentiated according to how sameness of propositions is determined, and unleashes a series of externalist arguments against each of them. The conclusion she draws from the falsity of meaning rationalism is that meanings are not epistemically given, so there is no problem with, for example, believing contradictory propositions. Because of this, logical possibility cannot be known a priori. Rationality, like meaning, are not in the head. Millikan draws some conclusions about intentional cognitive psychology based upon this radical anti-individualism. Psychology must become a more self-consciously ecological science.

6 Connectionism and its relative

Connectionist work can be seen as residing in the associationist tradition of understanding the mind. Connectionism is a movement in cognitive science which hopes to explain human intellectual abilities using artificial neural networks. Neural networks are simplified models of the brain composed of large numbers of units together with weights that measure the strength of connections between the units. These weights model the effects of the synapses that link one neuron to another. Experiments on models of this kind have demonstrated an ability to learn such skills as face recognition, reading, and the detection of simple grammatical structure.

Philosophers have become interested in connectionism because it promises to provide an alternative to the classical theory of the mind: the widely held view that the mind is something akin to a digital computer processing a symbolic language. Exactly how and to what extent the connectionist paradigm constitutes a challenge to classicism has been a matter of hot debate in recent years.

The dynamical approach to cognition claims that natural cognition is a dynamical phenomenon, and therefore best understood in dynamical terms. This contrasts with the orthodox idea that cognition is a form of digital computation. An understanding of dynamical cognitive science can be gained by its many differences with the computational approach. Dynamicists take cognitive agents to be dynamical systems as opposed to digital computers. A dynamical system for current purposes is a set of quantitative variables changing simultaneously and interdependently over quantitative time in accordance with dynamical laws described by some set of equations. Dynamics includes the traditional practice of dynamical modeling. A central insight of dynamical systems theory is that behavior can be understood as a matter of position and change of position in a space of possible overall states of the system.

How does the dynamical approach relate to

connectionism? In a word, they overlap. Connectionist networks are generally dynamical systems. However, the way many connectionists structure and interpret their systems is dominated by broadly computational preconceptions. Conversely, many dynamical models of cognition are not connectionist networks.

7 The elimination of folk psychology

Eliminativists are interested in connectionism and perhaps dynamical approach because they promise to provide a conceptual foundation that would replace folk psychology. It is still an open question as to whether the complexities of human cognition can ever be captured by such models. Furthermore, the whole issue of exactly what evidence about the brain would support the view that beliefs and desires are actively involved in the brain's processing is a cloudy one.

Churchland argues that folk psychology is inadequate as an empirical theory and therefore ought to be rejected. He concludes from this that the postulated entities of folk psychology, namely propositional attitudes such as beliefs and desires, do not exist.

1. Folk psychology can explain and predict much of our behavior, but there is much that it cannot explain, e.g., mental illness, intelligence, sleep, motor skills, perception, memory, and learning. The inability of folk psychology to explain such phenomena implies that it is at best a highly superficial theory.

2. Folk psychology is a degenerating research program. The explanatory and predictive domain of folk psychology used to be much larger than it is now. In primitive societies, all material objects were thought to have beliefs, desires, and so on. Now this is rejected as anthropomorphic. Even in the domain of higher animals, folk psychology has been stagnant for many thousands of years.

3. Folk psychology is unlikely to be integrated into the overall scientific framework. The natural sciences are together beginning to produce a comprehensive and accurate theory of human cognition and behavior. Folk psychology, with its appeal to meanings, propositions, and intentional states, fits poorly into this naturalistic framework.

Many philosophers, particularly functionalists, object to eliminating the categories of belief and desire from our conceptual landscape. First, they argue that folk psychology is a normative theory, about how we ought rationally to think and act. This normative feature of folk psychology is indispensable, since we cannot do without a method for criticizing and improving our thinking and reasoning. Second, functionalists point out that that folk psychology is useful for characterizing our mental states in a way that does not depend on their underlying physical constitution.

Indeed, according to some functionalists folk psychology is not an empirical theory at all: rather, it provides the conceptual apparatus necessary for characterizing the functional organization of our mental lives.

To the second point, Churchland argues that functionalism is a reactionary theory that tries to save folk psychology by abstraction. Folk psychology is made immune to advances in neuroscience by postulating that its categories (beliefs and desires) are only “functional states.” According to Churchland, this is a scientifically illegitimate move. To the first point, Churchland argues that the normative function of folk psychology could just as well be played by another theory with different categories for describing the content of our mental lives.

8 Legal knowledge and folk psychology

We first divided folk psychology into the theory-theory and the simulation theory. Still we do not know which is true. We have to wait for the empirical result how the children acquire the folk psychological concepts during their development. Folk psychology as a theory has been understood as an intentional system like Fodor’s case. No one doubts that this intentional theory is the beginning of the present debates. We have seen two different responses to this. One is the tendency to think intentional systems as external systems, which was promoted by Dretske and Millikan. The other is the elimination of such intentional concepts, which has been done mostly by Churchlands.

How to understand folk psychology is the important problem not only in legal knowledge but also social sciences in general. That human action based on belief-desire scheme itself is the subject we have to discuss. The strong psychological resistance to refute these folk concepts is easily understood when we think our own history. This may refute our rationality itself.

We did not claim anything until now, but there was a tacit claim. That is: to extend more Millikan’s way. Legal knowledge has almost no meaning without circumstances. The triple of mind, brain, and computer is not enough, and we have to include the world into them. Naturalistic fallacy is not a fallacy. In legal knowledge the normative and the factual are mixed together. To reconstruct psychology externally is connected to reconstruct social sciences more externally. This is one way of naturalizing.

Folk psychology is not the only game in town, but one of many games in town. Our claim is that one of them is naturalized psychology as shown here.

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