Meditations

Meditations

Issue 9

§

Spring 2022

MEDITATIONS

σύννοιαι

Editor-in-Chief	Brandon M. Ward
Editorial Staff	Leonel Alvarez Ceja
	Vishnupriya R. Bohra
	Ajeet Johal
	Daniella Rodriguez
Layout & Design Editor	Brandon M. Ward
Departmental Advisor	Joshua Doland
Departmental Staff Assistant	Doug Myers

Editor's Letter

Dear Reader,

While there is a never a dull time to study philosophy–doing so in the midst of a pandemic has been challenging in a number of ways; suffice to say that no amount of virtual discussions can replace the value of hallway bickering and late night discussions. It is with great pleasure then as the pandemic comes to a close (or is at least forgotten about), to return to discuss matters of philosophical import in person once more. It is my hope that this year's *Meditations* Conference will provide us with the good company which we have sorely missed.

This year we are excited to present a diverse range of topics spanning the fields of epistemology, the philosophy of probability, normative ethics, meta-ethics, moral responsibility, and the philosophy of mind. I would like to extend my utmost appreciation to my editors Leo, Vishnu, Ajeet, and Daniella, without whom this great confluence of different ideas would not be possible. I would also like to give my thanks to the Philosophy Department for their continued care and support of the *Meditations* Journal.

Without further ado, it is my pleasure to present the ninth issue of the *Meditations* Journal.

<div align="right">

Tally-ho,
BRANDON M. WARD
Editor-in-Chief

</div>

Contents

Evolutionary Autonomy: Debunking the Darwinian Dilemma   **41**

JUAN PAVA, *New York University*

Priming the Functionalist Pump: A Close Encounter with Qualia   **59**

DAVID VELDRAN, *Princeton University*

Probabilistic Analysis of Hawthorne's Lottery Puzzle

Reconciling Conflicting Intuitions with Pragmatic Encroachment

David Gao

Brown University

Abstract. A lottery proposition is a proposition of the form "this lottery ticket will not win," for a lottery consisting of a large number of identical tickets, only one of which will win. The lottery puzzle asks whether we can claim to "know" that we will lose, simply on the basis of how probable it is. In his 2004 book *Knowledge and Lotteries*, John Hawthorne answers "no" to the puzzle. In their 2007 paper "Hawthorne's Lottery Puzzle and the Nature of Belief," Christopher Hill and Joshua Schechter argue that we already know that we will lose a lottery, when the lottery is sufficiently large. They answer Hawthorne's objections, at the price of denying two intuitive principles of knowledge: the pragmatic condition of knowledge (PCK), and the multi premise closure of knowledge (MPC). In doing so, Hill and Schechter assume a particular notion of probability which is relevant to rational justification. This paper discusses the characteristics of this notion of probability in detail. It then presents a novel, quantitative version of pragmatic encroachment, which allows Hawthorne's objections to be answered without sacrificing the PCK and MPC.

1 Introduction

On day t, S purchases a ticket in a lottery for the price of one dollar. The lottery contains a large number N of tickets, and only one ticket will win. The winner's prize is W dollars.

The other $N-1$ tickets will not win anything. The lottery is fair, meaning each ticket is identical from the perspective of the raffle. Suppose it turns out on day $t+1$ that S's ticket loses. For simplicity, let us label the tickets such that S bought ticket #1, and the winning ticket is ticket #N.

For $n = 1, \ldots, N$, let P_n be the proposition that ticket #n will lose. In particular, P_1 is the proposition that S's ticket will lose. Propositions of this form are called **lottery propositions**. If N is large, S has good reasons to believe P_1: its likelihood is $(N-1)/N$, which gets arbitrarily close to 1 as N gets larger. Can S know P_1, before the lottery is drawn? This is the **lottery puzzle**.

If N can be large enough that S has **rational justification**[1] to believe P_1, then S knows P_1. But how can S know that her ticket will lose, while also knowing that there is a $1/N$ chance of it winning? And if S knows her ticket will lose, it makes no sense for her to buy the ticket, even if the prize W is greater than N. Wouldn't we be surprised if we heard her say "I bought this ticket, and I know it will lose?" And if S knows her ticket will lose, does every other participant except for the winner also know their tickets will lose? Regardless of how large N is, it seems counterintuitive that S knows P_1 at time t.

However, we do not want to set the bar of rational justification so high as to require certainty. For example, if my watch breaks once in a while—say, on average, once every M times I use it. Then each time I check my watch, the likelihood that the watch is correct is just around $(M-1)/M$. But if M is large enough (that is, if my watch is statistically reliable enough), surely each time I check my watch and it turns out to be working, I can rightly say that I know what time it is. A huge portion of our knowledge would be thus threatened, if we did not admit that lottery propositions can be known, when N is sufficiently large.

So, on the *con-side*, intuitions about lotteries suggest that S does not know P_1 regardless of how large N is. On the *pro-side*, commitment to the fallibility of rational justification

---

[1] I will use the phrase **rational justification** to denote justification for believing a proposition such that, if the proposition is true, then it counts as knowledge. I acknowledge vulnerability to Gettier-style objections.

leads us to think that S knows P_1 for N sufficiently large. In his book *Knowledge and Lotteries*, John Hawthorne argues in favor of the con-side. He invokes a set of plausible-sounding assumptions about knowledge, and claims that if we want to hold onto these assumptions, then we must conclude that lottery propositions are not known, regardless of the size of N. I briefly summarize some of his arguments in section 2.

On the other hand, in their paper "Hawthorne's Lottery Puzzle and the Nature of Belief," Christopher Hill and Joshua Schechter argue against Hawthorne. They use a probabilistic notion of rational credence to argue that Hawthorne's set of assumptions are not so plausible after all. They argue that lottery propositions are known for N large enough, and these are precisely the cases where Hawthorne's assumptions break down. I outline this in section 3.

In section 4, I scrutinize the probabilistic notion of rational credence employed by Hill and Schechter. I lay out the crucial properties of this "credence function," characterizing it as a measure of the extent to which an agent *would* believe a proposition, *if* they were *fully rational.*

Finally, in section 5, I make use of **pragmatic encroachment** to propose a more palatable middle-ground view. Pragmatic encroachment says the following: whether one knows a proposition or not can depend on the **pragmatic context**, even if one's *rational credence* with respect to that proposition is held fixed. Consider DeRose's famous **bank cases**:[2]

A Thursday night, I realize that I need to go to the bank to deposit my salary. I believe that the bank will open on Friday. My evidence is that, last Friday, the bank was open. So, I decide to go on Friday, saying to myself: "I know that the bank will be open tomorrow".

B Thursday night, I realize that I need to go to the bank to deposit my salary. Further, I had just made a separate rather large payment by cheque, which would bounce if I didn't deposit my salary by the end of Friday. I believe that the bank will be open on

---

[2]Keith DeRose, "Contextualism and Knowledge Attributions," 1992, pp. 913-4.

Friday. My evidence is again: last Friday, the bank was open. But this time, my friend says: "do you *really know* that the bank will be open tomorrow?" I then decide to go to the bank immediately, having realized that I do not know that the bank will be open tomorrow.

According to pragmatic encroachment, in case A, I really *do* know that the bank will be open on Friday; and in case B, I really *don't*. What explains this difference is not a difference in evidence (there is none), but rather, a difference in the pragmatic context. In section 5 of this paper, I propose a way to combine pragmatic encroachment with Hill and Schechter's theory. In effect, this achieves the following compromise: while Hawthorne claims that "for all N and for all pragmatic contexts, lottery propositions are not known," and Hill & Schechter claim that "there exists some N such that, in all pragmatic contexts, lottery propositions are known," I propose that "for each pragmatic context, there exists some N (dependent on the context) such that lottery propositions are known." I will show that this compromise is sufficient to preserve Hawthorne's plausible-sounding assumptions, while allowing that lottery propositions can be known in many cases.

2   Hawthorne's Arguments

We consider three arguments for the con side: the possibility argument, the practical reasoning argument, and the parity argument.

2.1   The Possibility Argument

The **possibility argument** depends on the crucial notion of **epistemic possibility**: a proposition P is said to be epistemically possible for agent S at time t if and only if P is logically consistent with all that S knows at t. Then we can make the following deduction about the lottery puzzle:

(Premise 1) If $\neg P_1$ is possible for S at t, then $\neg P_1$ is consistent with what S knows at t.

(Premise 2) $\neg P_1$ is possible for S at t.

(Lemma 1) Therefore, $\neg P_1$ is consistent with what S knows at t.

(Premise 3) If S knows P_1 at t, then $\neg P_1$ is inconsistent with what S knows at t.

(Conclusion) Therefore, S does not know P_1 at t. Premise 1 holds by definition of epistemic possibility.

According to Hawthorne, premise 2 holds because S can see that $\neg P_1$ has a nonzero chance $(1/N)$ of occurring. Premise 3 holds by the definition of consistency. Thus, S does not know P_1 at t.[3]

2.2 The Practical Reasoning Argument

The **practical reasoning argument** points out that lottery propositions are not acceptable as premises in practical reasoning, and therefore cannot be known. Consider the following case, which we shall call the **resale example**: S thinks to herself, "given P_1, if I hold onto my ticket, I will get nothing. If I resell it, I will get one cent. Therefore, I should resell my ticket." Intuitively, S's line of reasoning is incorrect, especially if W/N is larger than \$0.01. Hawthorne explains this by saying that P_1 is not an admissible premise for pragmatic reasoning. Therefore, S does not know P_1.[4] Note that this argument relies on the **pragmatic condition of knowledge** (PCK):

(PCK) If S knows P, then P is admissible as a premise in S's practical reasoning.

2.3 The Parity Argument

Finally, let us look at the **parity argument**: in the lottery puzzle, each of $P_1, \ldots, P_{N-1}$ is perfectly interchangeable with the others. So, if S has rational justification for believing P_1, then she is equally justified in believing any of $P_2, \ldots, P_{N-1}$. So, either S knew all of $P_1, \ldots, P_{N-1}$, or she didn't know any of them. Suppose, for the sake of contradiction, that

---

[3] John Hawthorne, *Knowledge and Lotteries*, 2004, p. 26.
[4] Ibid p. 30.

she knew all $P_1, \ldots, P_{N-1}$. She can then deduce and thereby come to believe, at t, that ticket #N will win. But it is clearly absurd if S could know that ticket N will win, merely by observing that the other tickets have a large chance of losing! So, S cannot know any of $P_1, \ldots, P_{N-1}$.[5] This argument relies on the **multi-premise closure of knowledge**:

(MPC) If S knows each of $P_1, \ldots, P_k$, competently deduces $(P_1, \ldots, P_k) \vdash Q$, and thereby comes to believe Q, while retaining knowledge of $P_1, \ldots, P_k$ throughout, then S knows Q.[6]

Each of these three arguments captures a different aspect of the intuitions on the con side. If we accept any of these arguments, we accept the claim that S does not know P_1 regardless of how large N is.

3   Hill and Schechter's Responses

Let us now briefly outline Hill and Schechter's response to each of the three arguments, starting with the possibility argument. This response depends on their crucial analysis of the meaning of the word "possible." In premise 1 of the possibility argument, "possible" refers to epistemic possibility. But since epistemic possibility is defined as consistency with the set of propositions S knows, verifying premise 2 ("$\neg P_1$ is epistemically possible for S") would amount to checking whether it is consistent with everything S knows. But since the question at hand is precisely whether S knows P_1, to request the content of S's knowledge is to beg the question.[7] It seems impossible to verify premise 2 without already having answered the lottery puzzle.

How does Hawthorne propose to verify it? S can observe that ticket #1 has a $1/N$ chance of winning. Therefore, $\neg P_1$ has nonzero probability, and hence it is "possible" (he does not tell us what sense of "possible" he is using here). But the fact that ticket #1 has a $1/N$ chance of winning has nothing to do, *prima facie*, with the full epistemic commitments

---

[5]Ibid p. 16.
[6]Ibid p. 33.
[7]C.S. Hill & J. Schechter, "Hawthorne's Lottery Puzzle and the Nature of Belief," 2007, p. 113.

of S.[8] It may just have to do with S's observations of the physical properties of the raffle drum. So, the notion of possibility mentioned in premise 2 is the notion of having nonzero probability, which is independent from the one mentioned in premise 1, namely the notion of epistemic possibility. Hill and Schechter are not committed at this stage to any particular notion of probability. All they say is that Hawthorne may not claim, *a priori*, that having nonzero probability in this sense implies epistemic possibility. Let us denote this separate notion by **μ-probability** emphasizing that μ is an unspecified interpretation of probability.[9] So, Hawthorne's possibility argument suffers from the fallacy of equivocation. It fails to rule out the following possibility: that μ-probability and epistemic possibility come apart, so that S knows P_1 while also believing that $\neg P_1$ has positive μ-probability.

All other responses depend upon this crucial distinction. Against the practical reasoning argument, Hill and Schechter distinguish between situations that are **simplification-permitting** and those that are not.[10] A simplification-permitting situation is one in which a pragmatic agent can ignore the chanciness of μ, and act as if for each available action, there is only one possible outcome. Whether one is in such a situation depends on both the μ-probabilities of the outcomes and the utilities paid by each outcome. In the resale example, S is not in a simplification permitting situation: even though μ is heavily skewed, if the expected payout W/N is greater than one cent, then the expected utility of holding onto the ticket is higher than that of reselling. In other words, the PCK breaks down: even though S knows P_1, S ought still to consider the μ probability of ticket #1 winning and losing, in order to decide whether to resell the ticket or not.

Finally, to respond to the parity argument, Hill and Schechter directly reject the MPC by citing the aggregation of risk.[11] Consider the **preface example**: Lee is a mathematics professor. He writes a book containing a large number M of theorems $T_1, \ldots, T_M$. He wrote

---

[8]Ibid p. 114.

[9]In subsequent parts of the paper, I shall use μ to denote both an interpretation of probability, and the probability measure itself. So, for example, if E is an event, then $\mu(E)$ denotes the μ-probability of E occurring.

[10]Ibid pp. 115-8.

[11]Ibid pp. 119-21. The subsequent computations are mine. I have made explicit the implicit computations that Hill & Schechter used to produce the figures on p. 121 of their paper.

all the proofs himself. For each m, if T_m is in fact correct, then certainly Lee knows T_m. At the same time, Lee notes in the preface of the book that he is bound to have made some error, and that he would appreciate any corrections. Indeed, usual norms of rationality expect this of Lee. So, even though Lee knows each of $T_1, \dots, T_m$, and even though Lee may, as an exercise in deductive logic, competently deduce the conjunction $T = \bigwedge_{m=1}^{M} T_m$, nevertheless, Lee does not know the conjunction T itself. How does this happen? Each of T_m has some μ- probability p_m which is close to but not quite 1 - close enough so that Lee *knows* each T_m. But, without information about underlying correlations, the best lower bound Lee can find for the μ-probability of the conjunction T is only

$$\mu(T) \geq \max \left\{ 0, 1 - \sum_{m=1}^{M} (1 - p_m) \right\}$$

Which may be quite far from 1.[12] Lee is therefore not necessarily justified in believing the conjunction T. Similarly, in the lottery puzzle, even though S knows each of $P_1, \dots, P_{N-1}$, she is not justified in believing, and therefore does not know, the deductive consequence that ticket #N will win.

By positing that the μ-probability measure is independent from the notion of epistemic possibility, Hill and Schechter is able to disarm each of the three arguments, at the price of rejecting PCK and MPC. If PCK and MPC do not hold as universal rules of knowledge, why do we find them so intuitive? The authors explain this away as an overgeneralization: most everyday situations are simplification-permitting, and most multi-premise deductions happen to preserve knowledge.[13] In section 5, I suggest an alternative approach: I link μ-probability to the notion of knowledge via pragmatic encroachment. This will preserve

---

[12]To see why this inequality holds: suppose that you draw a lollipop at random from a bag of 100 lollipops. Each lollipop has a color and a flavor. You know that all but 2 of the 100 lollipops are green colored. You also know that all but 3 of the 100 lollipops are peach flavored. How confident should you be that the lollipop you draw is neither green colored, nor peach flavored? Well, in the worst case, the 2 green colored ones are not peach flavored, so that there are in total 2 + 3 = 5 lollipops that fail your requirement. So you should be 95% confident.

[13]Ibid p. 120.

PCK and MPC, while also affirming the pro-side intuition that lottery propositions are frequently knowable.

4   Characterization of μ

To characterize the relation between μ-probability and knowledge, we must first characterize μ-probability itself. Although Hill and Schechter do not commit to a particular interpretation of probability, the way they have used μ-probability throughout their responses commits them to the following constraints, along with the usual axioms of probability:[14]

(Constraint 1) For S at t, the μ-probability of ticket #n winning the fair lottery is $1/N$.

(Constraint 2) Knowing a proposition P does not imply that P has μ-probability 1.

(Constraint 3) A rational agent computes expected utilities with μ-probabilities.

(Constraint 4) Rational justification of belief has to do with μ being large-enough.

Constraint 1 is assumed throughout Hill & Schechter. Constraint 2 is needed for the response to the possibility argument: it must be possible that, at least in some cases, S can know P_1 even while $\neg P_1$ has a nonzero probability for S. Constraint 3 is also necessary for Hill & Schechter: to respond to the practical reasoning argument, the authors require rational agents to compute expected utilities over μ in non-simplification-permitting situations. Finally, in order to explain the failure of MPC, the authors point out the low μ-probability of a conjunction of many known propositions. In order for such an explanation to work, rational justification must have something to do with μ being large enough.

Now, there are three interpretations of probability that Hill and Schechter mention (p. 114). What they call the **subjective probability** of P for S measures the extent to which S believes P; the **objective probability** of P is independent on the subject, measuring the frequency that P is true in the history of the universe or of possible universes; the

---

[14]For axioms of the formal language of probability calculus, see Kolmogorov 1933.

epistemic probability of P for S is the conditional probability[15] of P, where the condition contains all propositions that S knows.

Certainly, epistemic probability fails constraint 2. If S knows P, then P is contained in the conditional of the epistemic probability measure. So the epistemic probability of P must be 1 (the probability of P given P is 1). But the other two options fail as well. Subjective probability fails constraints 3 and 4 since S's degree of belief need not be fully rational, and therefore cannot be used as a basis for a rational agent's decision making. On the other hand, objective probability fails constraint 4. To see this, suppose that the Copenhagen interpretation of quantum mechanics is a fully correct depiction of reality. That would mean, among other things, that all matter is made of fundamental particles, which behave neither like point-mass particles nor like waves, but rather have properties of both. For example, imagine a billiard ball that is able to spread around the pool table, reverberate, and create interference patterns with itself! If this is correct, then it has always been correct in the history of the universe. So it has objective probability 1, ever since the universe existed. But now, imagine a scientist in the 18th century. Suppose this scientist, for whatever reason, dreamed up the hypothesis that the smallest particles have properties of both point-mass particles and waves (with no evidence supporting her claim). Would she be rationally justified in believing it? Most of us would answer negatively–simply because she had no way of obtaining the empirical data that is necessary to formulate and test this hypothesis, which is so bizarre that it contradicts almost all of every-day experience. Rather, we would think that this scientist was far more justified in believing that the smallest particles behave like point-mass particles, as Newton thought. So, rational justification doesn't always have to do with the objective probability of a proposition being close to 1.

Therefore, the μ-probability of P for S must be neither fully subjective nor fully

---

[15]A conditional probability measures the probability of something, given some known condition. For example, suppose you select a poker card at random from a deck of 52 cards (the jokers have been removed). The probability that this card is a J would be $\frac{1}{14}$. But, the conditional probability that this card is a J, conditional on the fact that the card has a face drawn on it, would be $\frac{1}{3}$ (assuming that the only cards with faces drawn on them are J, Q, and K).

objective to satisfy the four constraints. It must provide an objective answer to the question "what subjective degree of belief would S take, if she was rational?" In other words, it is a measure of **rational credence**. Its value depends on what epistemic evidence is available to S, as our above example about quantum electromagnetism shows. So μ will be a conditional $\mu(P|E)$,[16] where E is the body of evidence available to S. To construct the function μ, we will need to answer two questions. First, what are the prior probabilities – that is, what is $\mu(P)$, where the absence of conditionality represents the absence of evidence? Second, what information counts as epistemic evidence? If, once this is done, the four constraints on μ can still be satisfied, then we have crafted an acceptable μ.

The first question is generally known as the problem of the prior.[17] As for the second question, it is not obvious that an answer can be found at all. If no such answer exists, then at least one of Hawthorne's arguments will survive Hill & Schechter's responses. For now, let us assume that a rational credence function μ can be successfully specified, and examine the relation between μ and knowledge.

5 Pragmatic Encroachment to The Rescue

The analysis in section 4 suggests the following intuition: μ-probabilities are to the concept of rational justification what temperature is to the concept of hotness. When we ask, "is it hot outside?" we expect a yes-or-no answer which has to do with the temperature being "high enough," and which is useful for deciding what outfits we should wear.

Imitating this structure, the simplest form of relation one can imagine between μ and knowledge is the **weak conception of knowledge**:[18] S is rationally justified in believing P if and only if $\mu(P|E) \geq \kappa$. Here, κ is a number strictly between 0 and 1 called the **knowledge-bound**. Under this analysis, when the size of the lottery N is greater than $\frac{1}{1-\kappa}$,

---

[16]We read $\mu(P|E)$ as "the probability of P given E."

[17]See Jaynes' "Prior Probabilities," 1968, and Pettigrew's "Accuracy, Risk, and the Principle of Indifference," 2014 for a recent treatment of this problem.

[18]As defined in L. Bonjour, "The Myth of Knowledge," 2010.

lottery propositions are known. For example, let's say we set a μ-probability of 95% as our knowledge-bound. Then, in order for the lottery proposition to be known, we need the μ-probability of our ticket winning to be less than 1-in-20. So, there would need to be at least 20 tickets in the raffle, in order for the lottery proposition to be known. Hawthorne's objections are resolved using Hill and Schechter's arguments, at the price of denying PCK and MPC.[19]

But the bound at which a temperature counts as "hot" changes depending on factors irrelevant to temperature: if the oven is at 200 degrees Fahrenheit, then insofar as I want to bake potatoes, the oven is not hot yet; but insofar as I want to stick my head in the oven, the oven is hot. Similarly, for our analysis of knowledge, we introduce pragmatic encroachment: κ is a function of S's situation at t, denoted by X. Our analysis of knowledge then reads:

S is rationally justified in believing P if and only if $\mu(P|E) \geq \kappa(X)$.[20]

But what do we mean by **situation**? The general idea is that X must encode what S intends to do with the knowledge of P. In particular, X must encode the following:

(**Pragmatic Situation**) *What courses of action are available to S at t, and for each course of action, what does she stand to gain or lose depending on P?*

(**Inferential Situation**) *What conclusions will S draw using P, and recursively, what are the situations associated with those conclusions?*

By allowing κ to vary with X, we can save the PCK and the MPC while also affirming the pro-side intuitions for lottery propositions. Consider the PCK. Even though lottery propositions often cannot be used as premises for pragmatic reasoning, sometimes they can. Hill & Schechter give the **sailboat example**. Suppose the only thing S could possibly want to do, if she won the lottery, was to buy a particular luxury sailboat. Unfortunately, the sailboat is on sale only at time t, not afterwards. So S is forced to make a decision: either take a loan and buy the boat immediately, or do nothing. If S says to herself, "be

---

[19]There are also other inherent problems with the weak conception. See Bonjour's "The Myth of Knowledge".

[20]Notice that we are not using contextualism (per DeRose), but a form of subject-sensitive invariantism.

realistic now – my ticket will lose. I should not take the loan," this would certainly be an acceptable line of pragmatic reasoning.[21]

The difference between the resale example and the sailboat example lies in the pragmatic situation. According to Hill & Schechter, in both cases S knows that her ticket will lose; but in the resale example, S is not in a simplification-permitting situation, and therefore the PCK does not apply.[22] Our analysis, on the other hand, will allow the change in pragmatic situation to change the knowledge-bound: κ will adjust to the likelihood at which, holding utilities constant, the situation becomes simplification-permitting. What our analysis allows us to say is this: in both cases, the μ-probability of P_1 is the same for S; but in the resale example, the knowledge-bound κ is higher. Insofar as S wants to decide whether to buy the sailboat or not, she knows P_1; but insofar as she wants to decide whether to resell the ticket or not, she does not know P_1. In both cases, the PCK applies.

Saving the MPC is trickier since it involves the inferential situation, which in turn involves recursion. Essentially, if a subject intends to deduce a conclusion Q from propositions $P_1, \ldots, P_M$, then in order to compute the knowledge-bound for each P_i where $1 \leq i \leq M$, we must first compute the knowledge-bound κ_Q for Q. We then use a scaling procedure (see Appendix) to find tight enough knowledge-bounds κ for each P_i, so that if a subject S knows each P_i with respect to κ_i, then she also knows Q with respect to κ_Q. In the preface example, if Professor Lee wanted to deduce the conjunction T, then the knowledge-bounds for the individual theorems would be so high as to exceed the rational credence induced by her own proofs. Insofar as Professor Lee is just interested in finding true mathematical theorems, she knows each of T_m; but insofar as she is interested in deducing the conjunction T, she does not know T_m. Similarly in the lottery puzzle, insofar as S is just curious whether her ticket will lose, she knows P_1, but insofar as she wants to deduce that ticket $\#N$ will win, she does not know P_1. In all cases, the MPC applies.

We have effectively provided the same analysis for the notion of knowledge as for the

---

[21]Hill & Schechter, pp. 110-1.
[22]Ibid p. 117.

notion of hot-ness. The μ-probability is invariant under changes in the situation, just as the temperature of the oven is invariant under changes in the context. But the boundary at which "not-knowing" becomes "knowing" depends on the pragmatic and inferential situation, just as the boundary at which "not-hot" becomes "hot" depends on the context.

Let us tally the scores. Our analysis "rescues" intuitions about PCK and MPC, while also affirming the pro-side intuition that lottery propositions are frequently known. It affirms that S knows P_1 in the sailboat example, while denying S knows P_1 in the resale example. But this analysis comes with its price. First, it no longer makes sense to ask the question "does S know P?" without adding the qualification "insofar as X." Knowledge, like hot-ness, becomes parasitic on the situation of the subject. This limitation is somewhat mitigated by the specification of μ, a measure which retains the "epistemic purism" that used to be attributed to rational justification itself. Second, this analysis adds too much complexity. Can a rational agent really be expected to compute not only μ-probabilities, but also expected utilities and recursions in κ-bounds? Perhaps, as long as these computations are possible in principle, we may choose to uphold them as ideals of rationality to strive for, but never to be achieved.

6 Conclusion

In Hill & Schechter's response to Hawthorne, the notion of probability is distinguished from the notion of epistemic possibility. Their notion of probability is subject to more constraints than meets the eye. If these constraints can be met, then a mixture of this notion of probability with a variant of pragmatic encroachment produces a novel analysis of the lottery puzzle, which is essentially a compromise by a switch of quantifiers. While Hawthorne upheld PCK and MPC by claiming that "$\forall N, \forall X, S$ does not know P_1," and Hill & Schechter denied PCK and MPC in order to claim that "$\exists N, \forall X, S$ knows P_1," my analysis takes the compromise "for all X, there exists N (dependent on X) such that S knows P_1"

while upholding both PCK and MPC.

Works Cited

BonJour, Laurence (2010). "The Myth of Knowledge". In: *Philosophical Perspectives* 24.1, pp. 57–83. DOI: `10.1111/j.1520-8583.2010.00185.x`.

Derose, Keith (1992). "Contextualism and Knowledge Attributions". In: *Philosophy and Phenomenological Research* 52.4. Publisher: Wiley-Blackwell, pp. 913–929. DOI: `10.2307/2107917`.

Hawthorne, John (2004). *Knowledge and Lotteries*. Oxford, England: Oxford University Press.

Hill, Christopher S. and Joshua Schechter (2007). "Hawthorne's Lottery Puzzle and the Nature of Belief". In: *Philosophical Issues* 17.1, pp. 120–122. DOI: `10.1111/j.1533-6077.2007.00125.x`.

Jaynes, Edwin T. (Sept. 1968). "Prior Probabilities". In: *IEEE Transactions on Systems Science and Cybernetics* 4.3. Conference Name: IEEE Transactions on Systems Science and Cybernetics, pp. 227–241. ISSN: 2168-2887. DOI: `10.1109/TSSC.1968.300117`.

Kolmogorov, A. N. (1933). *Grundlagen der Wahrscheinlichkeitsrechnung*. New York: Chelsea Publishing Company.

Pettigrew, Richard G. (2016). "Accuracy, Risk, and the Principle of Indifference". In: *Philosophy and Phenomenological Research* 92.1, pp. 35–59. DOI: `10.1111/phpr.12097`.

7   Appendix: Recursive Computation of Knowledge-Bound

We now illustrate the recursion involved in the computation of the knowledge bound. Recall that this recursive method is meant to allow a person on the pro-side of the lottery problem to rescue the MPC of knowledge. Therefore, the recursive nature of our knowledge-bound computation resides entirely in the way in which our knowledge-bounds depend on the *inferential* situation, as opposed to the *pragmatic* situation (see section 5 for a definition of these). The discussion here will be slightly more mathematical than the main body of the paper, but the technicalities of this procedure cannot be avoided.

We will work again with our familiar preface example (see section 3). Let us begin by supposing that, after deducing the conjunction T from $T_1, \ldots, T_M$, Professor Lee does not intend to deduce anything further from T.

Let X_T be the situation associated with T. Since Lee does not intend to deduce anything further, the inferential situation in X_T is empty. In other words, the situation X_T contains only pragmatic information (for example, did she place a bet with her colleagues on T?). We can therefore compute, without recursion, the following knowledge-bound:

$$\kappa_T := \kappa(X_T).$$

Now, for each individual theorem T_m, let X_m be its associated situation. Each X_m will have nonempty information in both pragmatic and inferential components. Let $\overline{X_m}$ be the pragmatic component of X_m (delete the inferential component). Compute

$$\overline{\kappa_m} := \kappa(\overline{X_m}).$$

What we now need is a scaling factor to apply to each of $\overline{\kappa_m}$, so as to make the scaled knowledge-bounds κ_m so close to 1, that whenever Professor Lee has a credence of more than κ_m for each theorem T_m, she also necessarily has a credence of more than κ_T for the

conjunction T itself. How shall we find this scaling factor? I claim the following works: let

$$\alpha := \min\left\{\frac{1 - \kappa_T}{\Sigma_{m=1}^{M}(1 - \overline{\kappa_m})}, 1\right\}$$

and set the knowledge-bounds of the individual theorems to be

$$\kappa_m = \kappa(X_m) := 1 - \alpha \cdot (1 - \overline{\kappa_m}).$$

Let's check that the above value for κ_m works. By the above definition of α, we have that

$$1 - \sum_{m=1}^{M}(1 - \kappa_m) = 1 - \sum_{m=1}^{M}\alpha \cdot (1 - \overline{\kappa_m}) = 1 - \alpha\sum_{m=1}^{M}(1 - \overline{\kappa_m}) \geq 1 - (1 - \kappa_T) = \kappa_T$$

Where the last inequality holds because

$$\alpha \leq \frac{1 - \kappa_T}{\Sigma_{m=1}^{M}(1 - \kappa_m)}.$$

Then, whenever Professor Lee's epistemic evidence E is such that, for each m, $\mu(T_m|E) \geq \kappa_m$, the rational credence for the conjunction $\mu(T|E)$ will be bounded by

$$\mu(T|E) \geq 1 - \sum_{m=1}^{M}(1 - \mu(T_m|E)) \geq 1 - \sum_{m=1}^{M}(1 - \kappa_m) \geq \kappa_T.$$

In other words, if knowledge-bounds are computed according to this recursive rule, then whenever the subject knows each of the premises, she also knows the conjunction of all the premises.

Now, of course, if Professor Lee wanted to deduce some further consequences from T, she can just nest the above procedure by starting at the knowledge-bound of the very last thing she wishes to deduce, and working her way up (that is why we call it recursive). This

recursion terminates, because the recursion depth in this procedure is equal to the number of times the subject intends to perform deduction repeatedly on propositions obtained via MPC. No subject can perform infinitely many such deductions. So, under this recursive computation of knowledge-bounds, MPC holds.

Privacy and Responsibility

A Modern Perspective on Privacy and its Technological Applications

Nick Nhien

University of California, Los Angeles

Abstract.[1] The right to privacy purports to establish a strong foundation for other rights, despite lacking a widely accepted, rigorous definition. In this paper, I present a strong philosophical account of privacy, explain privacy's importance in liberal societies, and disambiguate privacy from security with technology. In the first section, I attempt to ameliorate the notion of privacy, beginning by considering the common sense notion of "being let alone." I then present Judith Jarvis Thomson's argument that we would be better off not worrying about what privacy is since its violations could be more easily characterized by the violation of other rights and a counter argument made by Jeffrey Reiman. I then present Thomas Scanlon's framework for an adequate account of privacy: it should contain a special interest for why we desire privacy and an account of the structure and foundation of the norms which secure and protect that interest. While Scanlon does not develop the special interest, Reiman picks up the slack and contends that we have a special interest in the creation and maintenance of our sense of self. In the second section, I step back from the abstract nature of the account and explain why privacy matters to us. I argue that privacy is required for a useful right to free speech

because healthy discourse requires robust opinions; something which requires a private context to form. I supplement this argument with James Rachels's position that privacy provides additional depth to our social relationships, facilitating meaningfulness. Finally in the third section, I disambiguate privacy from security–another concept with which it is often confused–in the information age. I do this by explaining how modern technology companies have a custodial responsibility with the information we provide them–the violation of which is distinct from a violation of privacy.

1   Introduction

The right to privacy is a strange one. It purports to provide a foundation for a wide range of other rights, like contraception and propriety of data about oneself. Nevertheless, this right a supposed foundation for others–is itself not well-defined. In fact, it was not until 1890, when Samuel Warren and Louis Brandeis authored a paper titled "The Right to Privacy," that serious discussion about the topic began. Even since then, there has been no wide academic consensus about what this essential right entails. This has not been for lack of effort; the debate has been contentious since Warren and Brandeis's seminal paper.

In this paper, I present an account of privacy, argue in favor of privacy's importance in a liberal society, and distinguish privacy from security in the context of the information age.

I begin by evaluating colloquial and philosophical accounts of privacy, settling on Thomas Scanlon's framework justified by Jeffrey Reiman. I then explain some practical importance for our philosophical investigation. Finally, I apply Scanlon's framework of privacy to modern issues relating to technology, distinguishing it from a related topic with which privacy is often confused, security. My hope is that this discussion on the right to privacy's place in the domain of modern technology clarifies questions of when privacy has been violated, which have become a contentious topic today.

2   What is Privacy?

2.1   The Common Sense Notion

A first gloss of our notion of privacy may be found by appealing to our common sense. We often think a right to privacy is a right to be let alone. For example, suppose I am arguing with my roommate and we have our window open. If a passerby stops to listen and takes notes on what we are arguing about, then the passerby has violated our right to privacy. We explain this intuition by saying that they have not let us be alone. On the other hand, if they just happen to eavesdrop our argument while walking by our house, then they cannot be said to have violated our right to privacy–even if they eavesdropped enough to pick up on the crux of our argument. This is because we neglected to keep the window closed–we have failed to take reasonable measures to secure our surroundings–and so passerbys cannot be held responsible for our negligence. This seems like a clear enough boundary for privacy's domain and the task seems to be complete.

Before we so hastily conclude, what does it mean to be "let alone?" At first glance it seems pretty clear; if I interfere with another's affairs, then I am not letting them alone, and so I am violating their right to privacy. However, suppose I stab someone. I have obviously not let them alone. However, it also does not seem like the right I have violated is a right to privacy. I have violated their right to not be stabbed.[2] But by our common sense account of privacy as "letting alone," it seems that the right I have violated *is* their right to privacy. In fact, this would make any crime–whether that be theft, homicide, etc.–a violation of privacy.

It cannot be the case that all crimes[3] are a violation of privacy. If this were the case, violation of privacy would be left as a toothless complaint, since it would imply that every crime violated privacy. If every crime violates our right to privacy, then a crime which

---

[2]If one prefers a more precise, academic account: I have violated their right to be free from unjustified violence.
[3]I use "crime" rather liberally, intending to mean any wrong action rather than legally punishable actions.

might solely be a violation of privacy will always be "less wrong" than another, since the other would also be wrong on the basis of a privacy violation.[4] A philosophically satisfactory account of privacy will thus require more than common sense.

2.2   Thomson's Account

Judith Jarvis Thomson is also dissatisfied with the ambiguity of the common sense notions of privacy. Thomson contends, however, that the reason it is so hard to discover a unique domain for privacy is because there *is no* unique domain for privacy. She entrenches herself into the consequence of the common sense view, arguing that privacy's domain intersects with that of every other right. Thus, we would be better off characterizing purported violations of privacy in terms of other rights, like our rights to property or life.[5] Thomson calls this her simplifying hypothesis.[6]

In support of this simplifying hypothesis, Thomson asks us to consider a case where one tortures a person to extract information about how to make puff pastry.[7] In torturing our chef, we obviously violate their right to not be harmed. We might also be violating their right to privacy (inherent in the secrecy of the puff pastry recipe), but the right to not be harmed seems to be the more egregious offense. Even if we frame the torturing's end as determining what the person does by themselves in the kitchen at midnight (baking puff pastry), it still seems more pressing that we have violated their right to not be harmed. Thomson's simplifying hypothesis reduces this apparent privacy violation to the violation of the puff pastry baker's right to not be harmed.

On Thomson's account, privacy is not something unique which is violated independently of another right; it is always dependent on some other right being violated. She applies her

---

[4]"Degrees" of privacy violations might help with the equity problem. However, how do we adjudicate the degree of the violation? As we will see later, what is considered private might be subjective, and so it would be unnecessarily difficult and messy to argue for an objective basis of adjudication outside of the fact that we do consider something as private.

[5]Judith Jarvis Thomson, "The Right to Privacy," 1975, p. 310.

[6]Ibid p. 306.

[7]Ibid p. 308.

simplifying hypothesis to a multitude of other hypotheticals. In every case, she identifies some other right which is violated. Thomson claims that there is no need to complicate things by looking for the common factor between those violations. We could simply use what we already know: the already clear domains of other rights. It would be unnecessary then to determine what the right to privacy protects.

Jeffrey Reiman critiques Thomson's argument as a large non-sequitur balanced on a small non-sequitur.[8] The small non-sequitur is the idea that all violations of the right to privacy can be expressed as violations of other, more fundamental rights. Thomson believes that this necessarily means the right to privacy is "derivative" of those rights, but Reiman notes that it is equally plausible that other rights are expressions of the right to privacy. For example, the Fourth and Fifth Amendments of the United States Constitution are explicit protections against unreasonable search and seizure and against self-incrimination. The United States Supreme Court has read these enumerated protections to also guarantee the right to privacy to the citizens of the United States.[9] Reiman writes that the enumeration of those rights is motivated by a more basic principle, which is the right to privacy. In other words, those rights stated in the Fourth and Fifth Amendments are expressions of the right to privacy. It would be incorrect to say that the right to privacy is derived from those enumerations; if we did, we would have it backwards. Rights do not seem to be something which are granted or withheld based on whether they are explicitly written on paper. I ought to have a right to free speech, whether or not some document ratified by a state says I have it. The document just makes the rights clear to everyone. Thus, it is not necessary that the right to privacy is derivative of the other rights.

Thomson's large non-sequitur comes from her belief that there is no commonality to the things which a right to privacy purportedly protects. She prematurely concludes that it would be counterproductive to even *try* to find a common factor. But just because we can explain violations of the right to privacy in terms of violations of other rights, it does not

---

[8]Jefferey Reiman, "Privacy, Intimacy, and Personhood," 1976, p. 27.
[9]See *Griswold v. State of Connecticut*

follow that there is no need to investigate what the right to privacy is. To demonstrate why this is, consider that we could grasp the idea of a circle by enumerating its properties. It is clear that this does not imply that it is pointless to talk about what unifies those properties, namely what a circle *is*. It certainly does not follow that there is *no* characterization which can unify those properties. Likewise, it does not follow that there is *no* characterization which can unify those related rights violations.

Thomson's approach to privacy attempts to simplify the discussion around it. However, in doing so, she does privacy a disservice and completely flattens the nuance. Reiman's objections display the non-sequiturs of her argument. However, this inquiry was not without benefit. We are encouraged by Reiman's point that a right to privacy is not necessarily derived from other rights, and so it could be fundamental. Furthermore, we see the potential for a unification of the aspects which characterize privacy. Thomas Scanlon will provide the framework which establishes privacy as a unique concept and the right to it as fundamental.

2.3   Scanlon's Framework

Scanlon's account of privacy is motivated by a desire to account for the shortcomings he saw in Thomson's position. He provides a structured account of privacy, cutting through the vagueness inherent in the common sense notion of privacy. Scanlon posits that an adequate account of privacy has two components: a general account of the interests which motivate a desire for privacy, and an account of the structure and foundation of the norms which we establish to secure and protect our interest.[10] I will refer to the structure and foundation of said norms as *mechanisms*.

Scanlon does not touch very much on the first component–a general account of our interests in privacy[11]–preferring an investigation of the mechanisms of privacy. Scanlon

---

[10] Thomas Scanlon, "Thomson on Privacy," 1975, p. 315.

[11] The next section will more deeply investigate what that interest is.

imagines these norms on a spectrum. On one side we have informal social understandings, while on the other we have explicit social norms. For example, on the side of informal social understandings, it is rather creepy to stare for some extended period of time at someone playing with their child at a park. On the side of explicit social norms, we have that it is improper to enter a stranger's home uninvited and rummage through their belongings. Note that in these cases, it is not entailed that the right to privacy is being violated. Rather, it is the social norms that are being disregarded. The purpose of the norms is to protect the interests that motivate our desire for privacy. Indeed, Scanlon writes,

> "The clearest cases of acts which are wrong because they are invasions of privacy
> involve both a violation of some norm of privacy *and* interference with one of the
> central interests."[12]

Disregarding a norm is a useful heuristic to determine whether the right to privacy is violated, but the disregard for a norm is distinct from the privacy violation. For an action to be a violation of privacy, it must also attempt[13] to interfere with a special interest towards privacy.

Scanlon notes that these norms define "zones" of privacy.[14] These zones need not be spatial. For example, recall the scenario involving the argument I am having with my housemate. We might put the topic of our argument into such a restricted zone. The integrity of these zones rely on the amount of effort we put into securing them in proportion to the amount of control we reasonably have to secure them.[15]

One might note that zones of privacy are subjective. However, the right remains objective on an intersubjective basis. We all agree that we have zones which must not be violated. When evaluating whether privacy is violated, we must consider what the purported victim defines to be their zone, provided their zone protects what Scanlon calls a

---

[12]Ibid p. 316, emphasis added.

[13]It need not be successful; see Ibid p. 317.

[14]Ibid p. 317.

[15]The proportionality clause is important for cases where we have little effective control over the integrity of our zone; something crucial for the context of information provided to technology companies.

"legitimate" interest.

Scanlon's explicit definition of what constitutes a violation of privacy directly addresses our main concern about the common sense notion. Recall that our main concern was that the common sense notion was too inclusive; every crime would be a violation of privacy, making legitimate invocations of it toothless. By providing two criteria to characterize an action as a violation of privacy, Scanlon adequately limits its domain while including actions which should be characterized as violations of privacy. Thus, his structured account provides a good remedy to the shortcomings of the common sense notion of privacy.

However, Scanlon's account is not without its ailments. His account glaringly rests on a vague notion of what "legitimate" interests of privacy are. Without clarity on what those special interests are and what makes some of them more legitimate than others, Reiman is right to point out that Scanlon's unification of the aspects of privacy boils down to a tautology: "our rights to privacy protect our special interests in privacy."[16] This tautology does not help us. If Scanlon's thesis is true and we want to refute Thomson's position that there is nothing which is uniquely protected by a right to privacy, then we must identify something more than "we like privacy" to justify a special interest.

2.4   Reiman's Special Interest

Reiman identifies our elusive special interest to privacy: the creation and maintenance of selves.[17] This is a bold claim, but one that I believe is well justified. If it is true, then it will also refute Thomson's claim that a right to privacy is derivative from other rights.

Reiman relies on "the symbolic interactionist perspective" of the self.[18] This is important for two reasons. The crux of Reiman's amelioration of Scanlon's lack of a specific special interest relies heavily on how the self is formed. Further, it provides empirical evidence for the premise that people adjust their behavior depending on social

---

[16]Reiman, p. 29.
[17]Ibid p. 41.
[18]Ibid p. 41.

norms. I am not a sociologist, so I cannot evaluate the correctness of this perspective. However its core premise seems plausible to me: social interaction, or lack thereof, contributes to shaping the self. The regulation of this social interaction is governed by social norms. These social norms are where Scanlon's "zones" come into play.

Reiman tells us that privacy violations are akin to violating our personhood. To defend this position, he considers a promising argument made by Stanley Benn. Reiman analyzes two principles presented by him:

1. We are entitled to have the environment in which we make choices free from influence caused by unknown or unwanted observation.

2. We are entitled to have the things associated with our identity free from unknown or unwanted observation.[19]

Reiman takes issue with the movement from the first to the second principle. He correctly notes that the second point only follows from the first if there is something that makes it more wrong to observe something about my identity than to just affect the conditions under which I act by unwanted observation. He notes that Benn believes violations of privacy justify this movement. However in doing this, we presuppose the value of privacy–the very thing which we are trying to justify the value of. Instead, Reiman proposes that our moral title to our own existence justifies the movement. When our moral title is respected, the conditions become more favorable to facilitate the creation and maintenance of our self.

I offer a criticism of Reiman's thought that the right to privacy is required for people to desire other rights. He writes that the right to privacy is:

"the right to conditions necessary for me to think of myself as the kind of entity for whom it would be meaningful and important to claim personal and property rights."[20]

This just seems plain untrue to me. Privacy is not necessary for someone to claim personal and property rights. For example, the FBI surveilled Martin Luther King Jr. quite heavily.

---

[19]Ibid p. 38.
[20]Ibid p. 43.

It cannot be said that he lived under private conditions. And yet, he obviously thought himself as the kind of entity for whom it would be meaningful and important to claim personal rights. The conditions of privacy were not necessary for him to feel that way.

Even so, Reiman presents a compelling case for a special interest we have in privacy: the creation and maintenance of our conception of self. His special interest is so fundamental that it need not rely on other rights, as Thomson thought it necessary. He remedies the shortcomings of Scanlon's account by elucidating the special interest which Scanlon claims is vital for a sufficient account of privacy. With that, we have a robust account of privacy: our special interest in privacy is found in our interest in creating and maintaining a sense of self, and this interest is secured and protected by socially defined rituals which respect our "zones."

3   Why Privacy Matters

One might well ask, "why does any of this matter?" And they would be justified in doing so, since this all might feel like an abstract philosophical investigation with no bearing on the real world. In this section, I offer two reasons why privacy matters: privacy is required for a useful right to free speech and privacy facilitates meaningful social relationships.

3.1   As a Requirement for a Useful Right to Free Speech

In an article written for the *New York Times*, Professor Jon Shields from Claremont McKenna College reflects on how he was incorrect to oppose "safe spaces" on his campus.[21] In it he writes, "I have to confess that in asking students to maintain our classroom as a place of private deliberation, I am asking them to keep quiet–and all in the name of open and free expression." His "confession" seems to imply that his decision to keep a private deliberative space is in tension with his principles to uphold the fundamental right to free

---

[21]Jon Shields, "I'm a Conservative Professor Who Opposed Safe Spaces. I Was Wrong," 2022.

speech in a liberal society. However, I see no such tension. In fact, I argue that a useful right to free speech in fact *requires* privacy.

First, consider the premise that the right to free speech facilitates healthy discourse only if there are robust opinions to debate with. We, as citizens of liberal societies, value free speech because it provides more 'wares' for our marketplace of ideas.[22] Free speech enables us to reconsider dogma given to us by the state or by society at large.

In our marketplace of ideas, those 'wares' are robust opinions. Opinions are generated within our minds and so for others to consider them, we must express these ideas to others. I emphasize the point that we can *choose* whether to share our ideas.

Suppose I have an idea contrary to the opinion of society at large, but which I nonetheless feel is right. While I am free to express my idea in an ideal liberal society, others are not required to consider it. Worse yet, though I am free to speak, I might still be ostracized for my unpopular opinions. Such circumstances might cause me to refrain from sharing ideas, which could be important contributions to the present discourse. It would be an overall loss for the public discourse if my idea turned out to be riveting yet left unshared.

This is not to say we should be espousing every opinion which comes to mind. Unfettered opinion sharing has been demonstrated to be an unwise policy. We require other perspectives to spot our intellectual deficiencies. However, sometimes when someone criticizes an idea of ours, we cannot help but take it personally. Even if they do not mean to attack us intentionally, there are times where we cannot help but feel that a criticism against our argument is simultaneously an attack on our character. This holds especially true when we are not familiar with our interlocutor. When talking with strangers, whose intentions we do not know, we wonder whether they are *actually* attacking our argument when they purport to do so, or if our nagging feeling of personal attack is true.[23]

---

[22]In *On Liberty*, John Stuart Mill argues that if we censor opinions, we assume intellectual infallibility upon ourselves. I, like him, take this to be a fallacious assumption. The marketplace of ideas provides a wide range of ideas for us to evaluate and adopt in favor of others.

[23]It should be noted that philosophy departments (usually) have the protection of the principle of charity and a

A way to mitigate this deficiency is to discuss our opinions with our friends. Our friendships are, in part, characterized by a social guarantee that we care deeply about the other, at least more so than the relationship between our fellow citizens. We need not, at least not seriously, worry that our friends attack our character when they attack our arguments. We trust their intentions. For this trust to have an effect, we need to be in an environment where we are free from unwarranted outside observation. If there is unwarranted outside observation–in other words a lack of privacy–then there are people whom we do not trust as highly as our friend observing our conversation. There is less trust inherent in the context. The less trust there is, the greater anxiety there is towards whether we will face irreparable consequences if we attempt to defend an indefensible idea; an act which, perhaps questionable, nonetheless contributes to making the truth stronger. Since the easiest way to avoid this anxiety is to simply not share those ideas, lack of privacy has the effect of stifling free speech.

This is the effect Professor Shields observed in his classroom. It is not necessary for there to be a lot of people in a context for it to be described as public. Unfamiliarity with some people is sufficient to define a public space. Unfamiliarity implies a lack of closeness; I take it that closeness is–in part–characterized by strong trust, and so unfamiliarity also implies a lack of strong trust.[24] Thus, if I am unfamiliar with everyone in a context, I lack strong trust with everyone, and so I would be uncomfortable with having a dialogue characterized as above.

For the right to free speech to facilitate a healthy democracy, we require robust opinions in the public debate. To acquire a wide range of robust opinions, we require privacy. Privacy allows us to develop initially strange ideas into more robust ones. Thus, for the right to free speech to be useful, we require a right to privacy.[25] Shields can rest his

---

culture which expects one to avoid argumentative fallacies like *ad hominem*. However my goal is to explain why the wider public deserves the right to privacy. We must face the reality that no matter how much rhetoric a politically-sensitive citizen gives, they usually do not value the principle of charity or avoid fallacies, instead preferring to feel right rather than actually be right.

[24]Trust at least stronger than asking a stranger to watch my belongings at a public library.

[25]I think it is necessary to clarify a special case, namely that of democratically elected officials. The distinction

conscience with the knowledge that he is not only not eroding our society's foundations, but in actuality he is strengthening them.

3.2   As a Facilitator for Meaningful Social Relationships

Not only is privacy important for the vitality of liberal society, it is essential to facilitate meaningful social relationships. James Rachels gives an excellent example involving spouses.[26]

His scenario goes like this: consider two spouses. In private, those spouses might discuss topics which they would never discuss with anyone else, they might be physically affectionate, they might have heated arguments, etc. However when a third-party joins, a more "public" face is put on. For the sake of argument, suppose that they were always in the presence of a third-party. Then they would always have to don the public face. They lose the ability to discuss those topics which they would discuss with no one else, they perhaps would be less physically affectionate with one another, and they probably would have less heated arguments. They lose the things which, in part, characterize their meaningful relationship.

Reiman notes the similarities of Rachels's position to Charles Fried's. Reiman believes that these positions toward privacy might lead to a disturbing implication: that there exists a marketplace of social relationships whose currency is the amount of information

---

between officer and citizen is extremely important to clarify this case. An incumbent should not be afforded the right to privacy when acting in an official capacity. This is because the office is established and constituted by the people. Just as a person's internal monologue cannot be hidden from themselves, the "internal monologue" of the officer (i.e. the ways in which they conduct business as the holder of the office) cannot be hidden from their constituents. If that were the case, then the officer would not be acting as a unifying representative, but rather as an individual tyrant (as John Locke would put it). This matters because if the purported officer would like to invoke the legitimacy of their office as moral justification for an action, they must actually be the officer, not just someone who holds the name. However, this is not to say that a person which happens to hold an office does not have a right to privacy either. Their private domain ought to encompass aspects of their life like a regular citizen; it just does not encompass their actions as a public official. The tension between these domains is something that is outside the scope of this paper (for example, to what extent does a person's private life affect their decisions as a public official?), but it is something which I believe is important to call attention towards.

[26]James Rachels, "Why Privacy Is Important," 1975, p. 330.

one provides to another.[27] He makes an important point:

"What constitutes intimacy is not merely the sharing of otherwise withheld information, but the context of caring which makes the sharing of personal information significant."[28] As he notes, it is the revealing of personal information in certain contexts which "deepens and fills out, invites and nurtures, the caring that powers the intimacy."[29] He further notes that a context of caring cannot be equivocated to a private context through an example of a patient revealing information about themselves to their psychoanalyst.[30] Obviously there might be a caring relationship between the psychoanalyst and the patient, else the psychoanalyst probably would not be in that profession, but it would be incorrect to say that the caring is characterized by the presence of privacy. He importantly notes that even if what he deems to be private information is revealed to unintended parties, his ability to enter into intimate relationships remains unhindered.[31]

Reiman is correct to critique Fried's assertion that "privacy creates the moral capital which we spend in friendship and love."[32] The emphasis on "moral capital" provides that repugnant conclusion which entails a marketplace of relationships. However, it seems to me that Fried is right when he writes, "privacy is the necessary context for . . . relationships of love, friendship, and trust."[33] Reiman ought to agree with this too, since the aforementioned quote conforms with this opinion. It is this part of Fried's position which Rachels' thesis mostly conforms with. Reiman's complete reduction of Rachels's thesis–that privacy matters because it enables social relationships–to be the same as Fried's is thus left unjustified.

Hence, Rachels's main point is left unscathed. Rachels's conception of privacy does not function in the way Reiman says it does: the creation of a marketplace of relationships.

---

[27]Reiman, p. 32.
[28]Ibid p. 33.
[29]Ibid p. 33.
[30]Ibid p. 33.
[31]Ibid p. 34.
[32]Charles Fried, *An Anatomy of Values*, 1970, p. 142.
[33]Ibid p. 142.

Rather, Rachels's conception functions in the way Reiman himself writes how it ought to be: by providing contexts in which we can express our care for one another.

4 Privacy and Technology

We now pivot to an application of Scanlon's account justified by Reiman. A contentious topic in the software engineering community is privacy.[34] Having an account of privacy and motivation to apply this account in hand, we are equipped to turn to this debate and properly analyze it. We first establish a custodial responsibility that technology companies have when they collect our data, and end with a disambiguation of privacy and security.

4.1 Custodial Responsibility

Stop for a moment to think about how the Big Technology companies connect us. They necessarily need to know a lot about us; our addresses, who we want to talk to, what we purchase, what we are interested in, etc. in order to provide the services they provide. We might not even do information provision willingly; it might be necessary to divulge information like my phone number if I want to talk to my grandmother in China.

We thus see that technology companies are required middlemen. The amount of information we divulge to these middlemen makes them like an extension of our lived experience. This symbiosis is experienced out of necessity for the consumer, not out of will. Students are required to use Google's products to learn[35] and people might only be able to access the Internet using one of Meta's products.[36] To say that people have a choice to use

---

[34]It is joined by some other infamous topics which have divided that community like vim v. emacs, tabs v. spaces, and the Unix wars. See *UNIX System Laboratories v. Berkeley Software Design, Inc.* for more information on the latter topic.

[35]Natasha Singer, "How Google Took Over the Classroom," 2017.

[36]Savannah Wallace, "In the Developing World, Facebook is the Internet," 2020. Note that in 2021, the company formerly known as Facebook, Inc. was renamed to Meta Platforms, Inc. The reason given by the company was that it felt a need to pivot its focus towards what it calls the Metaverse. It also had the (rather fortunate) effect of distancing itself from various misconduct allegations brought to light by whistleblowers. Facebook is now known formally as a product provided by Meta.

big tech's services is naive at best, and intentionally misleading at worst.

Recall that the integrity of our zones relies on the amount of effort we take to secure them in proportion to the amount of control we reasonably have to secure them. We can reframe the idea that we have little meaningful choice to use big tech's services to participate in modern society into the idea that we essentially *must* use their services to participate in modern society. Because we essentially must use their services, we are left to the whims of those companies. If the company says it needs some piece of data, we have little choice but to provide that data. We have little control over what data we can and cannot share. Thus, we have little control over the integrity of a private zone we might establish containing that data. We only have the comfort offered by a digital checkbox labeled "Do Not Sell My Data."[37]

The necessity of technology and technology's requirement of our data to function properly illuminates a custodial responsibility that the companies ought to respect. We trust that the companies will be merciful despite the power imbalance. It would thus be morally impermissible for the operators to share our data with others without our consent, as they would be violating their custodial responsibility of our data. The moral impermissibility arises from the fact that their coerced acquisition of our data resulted in an undesirable outcome for us. It violates a social contract, if you will; for the similarities between a state using its coercive power contrary to the interests of its citizens and a company using its coercive power for its profit are apparent.

4.2   Disambiguating Privacy from Security

The moral impermissibility of nonconsensual data sharing provides an interesting implication: it does not follow that the data custodian violates a right to privacy if they violate that responsibility. Indeed it is not the case that they violate our right to privacy, because we gave the data to the company. Rather, privacy is violated when the data is

---

[37]Nevermind that most company's privacy policies state that they do not honor the "Do Not Track" tag our web browsers might send to them.

shared with a third-party because the *third-party* violated my right to privacy.

Imagine it like this: I tell my friend who my crush is. My friend, being perhaps not so good of a friend, tells anyone who asks them–even those who I would have never wanted to tell.[38] It would be incorrect for me to think that they have violated my right to privacy, since I am the one who told them who my crush is. On the other hand, they have still done something wrong, since they violated the trust I placed in them when I told them the fact. They have done something morally impermissible by violating their duty as a custodian of that fact. However, the privacy violation instead falls on the classmates. This is made especially clear if we consider a classmate who has asked me at first and I refused to tell them. They could not let the matter go, and instead asked my friend. That nosy classmate has obviously violated my right to privacy because they have not followed the social norms which respect the zones I have established.

Similarly, I might give Google access to my contacts. I have given Google my contacts because I expect some useful service from them. By simply possessing my data, Google does no harm; I have given the data to them. This is even the case if they collect where I go by tracking what links I click *on* the Google search engine. Their actions are equivalent to the state monitoring the streets with traffic cameras. The state could just station a police officer at every intersection and have them manually record the information on pen and paper, but using traffic cameras effectively does the same thing. If Google gives that data to a third-party, say an advertising company, when I have not given consent, Google has not violated my right to privacy, but they have violated my trust. The trust I have placed is also necessarily great because I have no meaningful choice in using their service. Ultimately though, the third-party (e.g. the nosy classmate) is responsible for the privacy

---

[38]One might wonder whether it matters if I know my friend cannot keep a secret (tech companies being the obvious equivalent here). Let us consider two cases: I thought my friend could keep secrets, and I know my friend cannot keep secrets. In the first case, our friend really screwed up and conducted a serious violation of trust, since they have the capacity to keep secrets, but in this case chose to not keep it. In the second case, we need to also bring in another consideration which makes the analogy slightly strange: we are required to tell our friend our secret (analogous to the real case where we are required to divulge information to companies to receive services which enable us to participate in society). We then use the reasoning brought in 3.1 to establish a custodial responsibility towards that information, which the friend violates if they divulge it to others.

violation.

This is mildly complicated by the fact that some tech companies both act as custodian and have the capability to act as a third-party. However, the problem is easy enough to work through. For example, Google Analytics enables Google to view traffic received by other websites which elect to use the Analytics service. In these cases, Google acts as a third-party while those websites act as custodians. Thus, if any violation of privacy occurs in those cases, then it would be Google which is responsible for them.[39]

This clarifies an important distinction between two topics often confused: security and privacy. The company which I provide my information to is responsible for the security of my information. In other words, I expect that the information I provide to a company will be secure from those who I did not intend to have access to that information. Those privacy-disrespecting parties need not be hackers; they could be advertising firms or nefarious state actors. Responsibility for security is thus equivalent to custodial responsibility.

5   Conclusion

Before we part, I would like to take the liberty of making clear what I have and have not done. We have just gone on a whirlwind tour of the very ambiguous right to privacy. The common sense notion failed because it was too broad. Thomson's account improperly asserted that a right to privacy does not protect anything unique; she argued that the wrongness of a privacy violation could be more strongly justified by an appeal to the violation of a different right. Scanlon attempted to refute Thomson by arguing that privacy *does* protect something unique. He contended that a proper account of privacy

---

[39]If one really wants to complicate it further, they could say that the data collected through these means might be anonymized and so not explicitly connected to a specific individual. This makes it more difficult to justify the assertion that a violation of privacy has occurred. A rough argument justifying such an assertion might be that the simple prospect of someone being able to target me might adjust my behavior, which might involve adjusting how I conceive of my self–our special interest in privacy. If this and a violation of some norm occurs, then by Scanlon's definition, a privacy violation has occurred. This relies on the premise that anonymization is not enough to dissuade a connection with a particular individual, which is a complicated topic and outside the scope of this paper.

contains two components: an account of our special interest in privacy and the norms which protect our special interest. His presentation of norms is compelling, but unfortunately did not provide a clear account of our special interest. Reiman remedied this and argued that our special interest is the creation and maintenance of our sense of self.

I motivated why privacy matters by arguing that it is required for a useful right to free speech and presented Rachels's argument that it facilitates meaningful social relationships.

I pointed out how our modern society has necessitated our use of information technologies. We must provide much information about ourselves to the big technology companies to participate in modern society. This inherently places great trust in those companies to be faithful custodians of that data. Notably, when they do the morally impermissible and violate their custodial duties, the wrongness is contained within those two characterizations and not within a violation of a right to privacy. Rather, it is the third-party which solicited that data that is responsible for the privacy violation.

I want to emphasize this last point. Yes, it is wrong when Google or Facebook violates their responsibility as data custodians. But the wrongness is based solely on their roles as custodians; not on a violation of privacy. It is the third-party agent which violates our privacy.

The reason why I wish to emphasize this point is because responsibility is very ambiguous in the debates about digital privacy. This ambiguity is detrimental for those who are trying to advocate for greater data protections since it makes unclear who legislation is supposed to target, and how legislation is supposed to target it. If anything is to be taken away from this paper, I hope it is the motivation for why we ought to care about privacy and the disambiguation of responsibility.

I have not done at least three important tasks. First, I have not made explicit all of the social norms which compose Scanlon's account, nor really robustly explained how they exactly function in principle. I only gave a rough overview on how they work in practice. Second, I have not gone into any depth towards when it is morally justifiable to violate a

person's right to privacy. I presume that, just like any other right, there are cases where it is justifiable to violate this right. Finally, I have not said much about when a person's private life ought to end and their public life begins. This was mildly touched on when we noted that the "zones of privacy" are subjectively chosen, but there is likely an objective boundary where encompassing anything beyond it is always unjustifiable.

Works Cited

Fried, Charles (1970). *An Anatomy of Values*. Cambridge, Harvard University Press.

Rachels, James (1975). "Why Privacy Is Important". In: *Philosophy & Public Affairs* 4.4. Publisher: Wiley, pp. 323–33.

Reiman, Jeffrey (1976). "Privacy, Intimacy, and Personhood". In: *Philosophy & Public Affairs* 6.1. Publisher: Wiley, pp. 26–44.

Scanlon, Thomas (1975). "Thomson on Privacy". In: *Philosophy & Public Affairs* 4.4. Publisher: Wiley, pp. 315–22.

Shields, Jon (2022). "I'm a Conservative Professor Who Opposed Safe Spaces. I Was Wrong". In: *The New York Times*.

Singer, Natasha (2017). "How Google Took over the Classroom". In: *The New York Times*.

Thomson, Judith Jarvis (1975). "The Right to Privacy". In: *Philosophy & Public Affairs* 4.4. Publisher: Wiley, pp. 295–314.

United States District Court for the District of New Jersey (1993). *Unix System Laboratories v. Berkeley Software*. Justia Law. URL: https://law.justia.com/cases/federal/district-courts/FSupp/832/790/1428569/.

United States Supreme Court (1965). *Griswold v. State of Connecticut*. Legal Information Institute, Cornell Law School. Publisher: Legal Information Institute, Cornell Law School. URL: www.law.cornell.edu/supremecourt/text/381/479..

Wallace, Savannah (2020). "In the Developing World, Facebook Is the Internet". In: *Medium*.

Evolutionary Autonomy

Debunking the Darwinian Dilemma

Juan Pava

New York University

Abstract. In "A Darwinian Dilemma for Realist Theories of Value," Sharon Street developed one of the most influential evolutionary debunking arguments against realist theories of value. Street claims that, given the evolutionary influence on our evaluative attitudes, realists face a dilemma in that they must either reject the compatibility of their theory with natural science or accept moral skepticism. Moreover, Street argues in favor of the anti-realist position by showing how this metaethical theory avoids said dilemma. This paper directly challenges the form of Street's argument by showing how her efforts to disqualify autonomous rational reflection as a possible remedy to the dilemma fail. This means that (1) the realist camp may allude to rationality as a way to escape Street's challenge, and hence that (2) without a stronger argument against autonomous rational reflection, realism remains unscathed.

1   Introduction

In her paper, "A Darwinian Dilemma for Realist Theories of Value," Sharon Street challenges evaluative realists with the claim that, given the evolutionary influence on our evaluative attitudes, they must either reject the compatibility of their theory with natural science or accept moral skepticism. Moreover, Street argues in favor of evaluative anti-realism by showing how such a metaethical position avoids said dilemma. Street bases the main thrust of her argument on the empirical claim that evolutionary forces have

shaped the content of our evaluative attitudes. According to Street, because (a) there is no reliable tool to correct for these distorting forces nor (b) a scientifically-grounded reason to believe they tracked independent moral truths, the realists are burdened with skepticism. Conversely, she claims, anti-realism does remain consistent with the scientifically supported view that our evaluative attitudes were shaped by evolution. This paper will challenge the form of Street's argument by questioning her efforts to disqualify rational reflection as a possible remedy to the dilemma. This ultimately shows that Street requires a different argument against rational reflection if her overall argument is to hold. For this purpose, I will be partially drawing from Peter Singer's (2011) *The Expanding Circle: Ethics, Evolution and Moral Progress.*[1]

The paper will be structured as follows. In the first section, I will define some key terms such as evaluative realism and evaluative attitudes. In the second section, I will outline Street's overall argument and explain the Darwinian Dilemma. In the third section, I will first spell out Street's claim that rational reflection is no remedy to her Darwinian Dilemma and then I will show why this argument is not sufficient–chiefly because it ignores a plausible counterexample. I will then end with some concluding remarks by commenting on some of the broader implications this has for the realism debate.

2   Definitions

Street defines *evaluative realism* as the view that "there are at least some evaluative facts or truths that hold independently of all our evaluative attitudes."[2] That is to say that what is valuable holds independently of what *we* value. *Evaluative facts or truths* are those of the form that "X is a normative reason to Y," "that one should or ought to X," "that X is

---

[1] I say partially because (1) Singer does not delve into meta-ethics directly and (2) when he does, he shows some level of sympathy to the anti-realist position. With that being said, some of the arguments he raises against egoism I think prove very useful in this context.

[2] Sharon Street, "A Darwinian Dilemma for Realist Theories of Value" (2006), p. 111.

good, valuable, worthwhile, right," etc.[3] A caveat must be made here. In this paper, Street is solely concerned with practical evaluative truths and attitudes that justify action; rather than reasons for believing or epistemic reasons.[4] This important qualification will be discussed later on. And lastly, *evaluative attitudes* include "desires, attitudes of approval and disapproval, unreflective evaluative tendencies," etc.[5] With that said, I will now turn to her argument proper.

3 The Darwinian Dilemma

3.1 Evidence for Evolutionary Shaping

As mentioned in the introduction, Street argues that evolutionary forces have played a "tremendous" role in shaping the content of our evaluative attitudes. She provides roughly three arguments for this claim. First, she makes an intuitive appeal to how natural selection would rule out all evaluative tendencies and thus judgments that could go against our species self-preservation (broadly conceived) For instance, the widely rejected norm that "the fact that someone is kin is a reason to harm that individual."[6] Second, Street points to the fact that, though morality varies across cultures, there are some crucial similarities. That is, there is a widespread acceptance of certain evaluative attitudes (e.g., "that something promotes one's survival is a reason in favor of it" or that "we have greater obligations to help our own children") that seems to be best explained by evolutionary forces.[7] And though, unfortunately, Street fails to provide any evidence besides intuition for the ubiquity of these particular attitudes, research on the universality of some moral attitudes and values is not hard to find.[8] For her argument to work, Street only needs to

---

[3]Ibid p. 110.
[4]Ibid p. 156 n.2.
[5]Ibid p. 110.
[6]Ibid p. 114.
[7]Ibid p. 115.
[8]Though far from numerous, there are a few studies that have noticed this kind of similarities. See Curry et al. (2016), Schwartz (2012), and Haidt (2012). These findings are generally favorable to Street's argument, especially

defend the very likely possibility that some of these universal attitudes have been shaped by evolution so that her lack of evidence does not really damage her argument. Lastly, she demonstrates that there is continuity between some of these widely accepted evaluative attitudes and some of the evaluative tendencies observed in animals, especially in chimpanzees.[9] This comes to show how it is, at the very least, plausible that at some point in our evolutionary development we held some of the same basic tendencies we observe in our close animal relatives.

From here, she makes an additional qualification to her argument. Namely, she notes that the evolutionary forces have *indirectly* shaped our evaluative *judgments*, understood as the "reflective, linguistically-infused capacity to judge that one thing counts in favor of another."[10] That is because evolutionary forces had only a direct influence on our ancestors' *most basic evaluative tendencies*–i.e., the more primitive push and pull proclivities that we also see in animals such as a bird's proclivity to feed their hatchlings. With time, these basic tendencies became fully-fledged evaluative judgments and so the impact of evolution on our latter evaluative judgments was necessarily mediated by the proto-moral basic tendencies of our ancestors.[11]

Now, we might as well ask, what is the problem with having our evaluative attitudes shaped by evolution? We can rightly point to the fact that whenever we ask for the justification of any judgment, we typically ask about the reasons for holding it rather than the causal explanation of how such judgment came to happen.[12] For instance, when we ask Anne why she believes "$2 + 2 < 5$" we can be posing two different questions. We could be looking for those *reasons* (i.e., considerations in favor) which Anne takes to justify her belief, and the appropriate answer would be for her to respond that "$2 + 2 = 4$" and "$4 < 5$"

Curry et. al (2019)–even though their explanation is meant to argue that social cooperation, rather than evolutionary adaptation, underlies our evaluative tendencies.

[9]Ibid p. 117.

[10]Ibid p. 118.

[11]Ibid pp. 118-121.

[12]This is a line pursued by William FitzPatrick in the Stanford Encyclopedia of Philosophy entry on "Morality and Evolutionary Biology."

are both true. Conversely, we might be asking for the *causes* behind her belief, and the appropriate answer would be a complex description of the neuroscience or evolutionary psychology of belief. Hence, an objector to Street's argument may wonder what harm is done to our evaluative judgments if we have an evolutionary explanation for them.

For this, it might be helpful to look at another case in which illegitimate influences are shown to undermine the truth of an evaluative judgment. For instance, consider the assertion "men are superior to women." The fact that such a claim is patently based on gender prejudices immediately makes this judgment come under suspicion because we commonly understand prejudices to be distorting influences on our faculty of judgment. By analogy, we can see how Street's challenge undermines the possibility of grasping evaluative truths. At least *prima facie*, it seems that to say that we have evolved to hold a particular evaluative judgment is no good reason for thinking it is true in the way a realist might hope. The realist is then forced to describe the relationship between our evaluative attitudes and the attitude-independent evaluative truths they claim exist. And thus, they are left with two logical options: either they *deny* any relation exists or they *assert* that it does.

3.2   The First Horn of the Dilemma

If realists take the first route and deny any such relation between evaluative attitudes and evaluative truths, they invariably fall into skepticism. That is because to deny any relation is also to claim that any alignment of our evaluative attitudes with any attitude-independent evaluative truth is a product of chance.[13] If, in addition to this, we accept the premise that there is a "huge universe of logically possible evaluative worlds,"[14] then the likelihood of any alignment is very slim. In other words, most of our evaluative attitudes are probably offtrack. Thus, this path renders most of our evaluative judgments

---

[13]Ibid p. 122.
[14]Ibid p. 122.

either false or unjustified and in this way saddles the realist with normative skepticism. Because this seems such an implausible conclusion, the realist might then attempt to assert there is a relation between our evaluative attitudes and attitude-independent evaluative truths. But, as it will be shown below, this path leads to another *cul-de-sac.*

3.3   The Second Horn of the Dilemma

According to Street, if, conversely, the realist posited a relation, they would have to do so on scientifically unacceptable grounds. That is because asserting any form of relation is to be committed to what Street terms a *tracking account.*[15] That is, the view that evolutionary forces have pushed us toward attitude-independent evaluative truths because these are evolutionarily advantageous.[16] Natural selection would push us towards evaluative truths in the same way as knowing nonmoral truths–e.g. fish are nutritious sources of food–insofar as they are evolutionarily advantageous. The reason why such a tracking account is scientifically inadequate is that there is a better scientific explanation of how we came to hold our evaluative attitudes. This scientific account is what Street calls the *adaptive link account.* This is the view that "tendencies to make certain kinds of evaluative judgements rather than others contributed to our ancestors' reproductive success ... because [these tendencies] forged adaptive links between our ancestors' circumstances and their responses to those circumstances, getting them to act, feel, and believe in ways that turned out to be reproductively advantageous."[17] Ultimately, because (1) the adaptive link account is (i) more parsimonious, (ii) clearer, and (iii) it illuminates the explanandum better than the tracking account;[18] and that (2) to be acceptable on scientific grounds, an account must provide the most scientifically adequate explanation; it follows that the tracking account is scientifically unacceptable.

---

[15]Ibid p. 135.

[16]Ibid p. 126.

[17]Ibid p. 127.

[18]Ibid pp. 129-134; for the purposes of this paper, there is no need to go into how Street argues for each of these points. This is just to say that she does provide an argument for each.

Thus the realist faces the dilemma of either losing at the justification game or the science game. That is, they must either assert that there is a relation between our evaluative attitudes and attitude-independent truths but reject all justification for our moral beliefs, or deny any relation but then reject the best available science.

3.4   The Anti-realist Solution to the Dilemma

After developing the Darwinian Dilemma presented above, Street goes on to argue that antirealism avoids it. Anti-realists escape because, holding the view that evaluative truths are attitude-dependent, they can assert that there is a relation–thus opting for the second horn of the dilemma–while remaining scientifically consistent.[19] Because anti-realism is able to escape from the dilemma, then, abductively, it seems a better value theory than realism, and, in this way, Street concludes her argument. Now, I will turn to some of the structural limitations that could threaten her challenge to realism.

4   A Defense of Rational Reflection

Returning to the first horn of the dilemma (sec. 3.2), it seems that if the only thing that we were considering was the tremendous evolutionary influence on some of our attitudes, then normative skepticism does seem unavoidable. However, if we had a tool that could correct for the evolutionarily influence, we should be able to access attitude-independent evaluative truths without problems. In fact, a realist could argue that we already have the best tool for the job. Namely, *rational reflection.* So that through rational reflection's corrective capacity, we can independently assess our evaluative attitudes and thus correct for the illegitimate influence of evolution. In this way, rational reflection can be a way to arrive at attitude-independent evaluative truths.

Street rejects this argument by challenging the possibility of there being any corrective

---

[19]Ibid p. 154.

capacity in rational reflection, that is, she claims that rational reflection lacks the capacity to rid itself from external influences. That is because for Street, "rational reflection must always proceed from some evaluative standpoint,"[20] namely it is impossible to stand apart from our evaluative judgments as to independently assess all of them. The only way to do so, as manifested by the widely accepted method of reflective equilibrium, is to evaluate our judgments in terms of other evaluative judgments we hold fixed. If we accept the fact that our evaluative attitudes were "thoroughly contaminated with illegitimate influence" as established above (sec. 3.1) then it follows that "the tools of rational reflection were equally contaminated."[21] In other words, we are using rotten apples to assess rotten apples and there is no way, according to Street, that this will lead us any closer to the truth.[22]

Before moving forward, an objector must resist the temptation of showing how valuing a theoretical framework over another, such as reflective equilibrium over other methodologies, may be undermined by the same evolutionary arguments raised above, insofar as it is based on substantial evaluative attitudes. Though this issue becomes especially salient for the second horn of the dilemma (sec 3.3), when she uses a set of theoretical virtues (e.g., parsimony, clarity, etc.) to compare theories, the point is moot. There are two reasons for this. First, though Street makes mention of reflective equilibrium, she only needs to be committed to the broader view that rational reflection always proceeds from an evaluative standpoint, which is more plausible than defending a particular version of this view. Second, we must remember the original qualification made by Street where she explicitly states that she is solely concerned with moral or practical evaluative attitudes rather than any epistemic or theoretical ones in this paper.[23] Thus, issues related to the evolutionary influence on epistemic evaluative attitudes, though important, are beyond reach. That said, an objector might still justifiably question Street's argument on her own terms by

---

[20]Ibid p. 124.

[21]Ibid p. 124.

[22]Ibid p. 124.

[23]However, Street would still owe us an account of epistemic reasons that survives the Darwinian dilemma for as it is, it could end up becoming self-defeating by seriously challenging the grounds for scientific and philosophical inquiry.

scrutinizing her considerations or more specifically what she failed to consider.

The key to this challenge lies in Street's explicit acknowledgment that "if the fund of evaluative judgments with which human reflection began was thoroughly contaminated with illegitimate influenc–and the objector has offered no reason to doubt *this* part of the argument– then the tools of rational reflection were equally contaminated."[24] We can usefully formalize her argument into the following claims:

1. The fund of evaluative judgments was contaminated with illegitimate evolutionary influences.

2. Rational reflection can only evaluate our judgments in terms of other evaluative judgments.

Therefore, rational reflection can only evaluate our contaminated judgments in terms of other contaminated judgments.

That is, the tools of rational reflection are equally contaminated and rational reflection cannot free itself from evolutionary influence.

The problem with this argument is that, even if valid, it is surprisingly frail (as I will show below). A consequence of this issue is that it ultimately exposes the entirety of Street's Darwinian dilemma to attack by casting doubt over the main thrust of her argument. Allow me to explain. Street's argument against rational reflection follows necessarily from her claims that (1) the fund of our evaluative judgments has been shaped by evolution and that (2) rational reflection cannot stand apart from our evaluative judgments. In order to call this argument into question, objectors must demonstrate that at least one of these two claims is false. Therefore, it seems that they must either develop an alternative account of rational reflection (challenging the second premise), or provide substantial evidence for rational reflection's capacity to correct for evolutionary pressures (challenging the first premise). I will first explain why challenging the second premise is

---

[24]Ibid p. 124.

probably insufficient and then turn to the problems that rational reflection brings to the first premise.

4.1   Challenging the Second Premise

Assuming that the first premise holds true, the objector who wants to challenge the necessity of the conclusion has two options: either they can work within the confines of a reflective equilibrium type of methodology (i.e., the view that we can only evaluate our judgments in terms of other evaluative judgments), or they can propose a better methodology for rational reflection. However, because "the widespread consensus that the method of reflective equilibrium, broadly understood, is our sole means of proceeding in ethics,"[25] the latter option–that is, coming up with an alternative yet equally satisfactory account of rational reflection–is arguably too demanding. Thus, let us look at the first option.

It seems that the best way to dispute the jump from the second premise (i.e., rational reflection can only evaluate our judgments in terms of other evaluative judgments) to the conclusion (i.e., rational reflection can only evaluate our contaminated judgments in terms of other contaminated judgments) is to show that we can evaluate our contaminated judgments in terms of *uncontaminated* judgments. Though recent advances in evolutionary psychology makes the search for uncontaminated judgments somewhat more taxing, we can take martyrdom, philosophical pessimism, antinatalism, some environmentalist views and object-oriented ontology as cases that instantiate those non-evolutionary evaluative attitudes we are looking for. If we understand evolution to be a pressure towards self-preservation and reproductive success (or more broadly whatever is evolutionarily advantageous), then pessimism's thesis that "life is not worth living, that nothingness is better than being, or that it is worse to be than not to be"[26] seems strikingly at odds with

---

[25]Ibid p. 124.

[26]Frederik C. Beiser, *Weltschmerz: Pessimism in German Philosophy*, 1860-1900, 2016, p. 4.

evolution. More strongly, Benatar's antinatalism and his claim that "coming into existence is always a serious harm"[27] works directly against the evolutionary aim. A similar argument can be made of environmentalist movements such as the *Voluntary Human Extinction Movement* and their call for people to refrain from reproduction. Lastly, according to its defenders, object-oriented ontology is the most recent effort to eliminate the "anthropocentrism" that has plagued philosophy since Kant's Copernican revolution.

The importance of these theories is not only that they often provide great counterexamples to some of those "widely accepted evaluative attitudes" which Street used to defend her claim that evolution has shaped our attitudes (sec 3.1), but also, within the framework of reflective equilibrium, it shows that there are stable positions that seemingly avoid tremendous evolutionary distortion.

If we take these theories to reflect some non-self-preserving attitudes, they could provide a schema through which we can bracket those evolutionarily influenced attitudes and assess them in terms of those attitudes that were not influenced by evolution. This line of argument is further strengthened by Street's claim that evolution influenced only *some* of our attitudes.[28]

4.2   Street's Reply

However, there seems to be a problem with this argument and Street would not need much to refute it. Almost unavoidably, Street's next step would be to claim that even if only *some* of our evaluative attitudes have been contaminated by evolution, it is likely that the rest of our evaluative judgments have been equally contaminated by other sources. Hence,

---

[27] David Benatar, *Better Never to Have Been: The Harm of Coming into Existence*, 2006, p. 1.

[28] It seems that once we prove that rational reflection grants us access to some minimal level of truth, the opportunities for many other discoveries open up. Singer makes the following analogy: "beginning to reason is like stepping onto an escalator that leads upward and out of sight. Once we take the first step, the distance to be traveled is independent of our will and we cannot know in advance where we shall end" (*The Expanding Circle*, p. 88). This line is further strengthened by the finding that humans can intentionally impact the evolutionary process of other species, likely including their own (see Andrew P. Hendry et. al "Human Influences on Evolution, and the Ecological and Societal Consequences," 2017).

she seems justified in appealing to contingent cultural and social influences on rational reflection in a way that, even given our attitudes that are not influenced by evolution, the realist searching for attitude-independent evaluative truths will fail to escape contamination. In this way, her argument remains as threatening as before. In sum, we are able to use socially influenced attitudes to examine evolutionarily influenced attitudes and vice-versa, but this process will not get us any closer to the attitude-independent truths that realists defend. Lastly, were we to doubt all of our evaluative attitudes, we would inexorably fall into normative skepticism, which for the realist is an unacceptable conclusion. Because the only remaining option would be to develop an alternative account of rational reflection that is (at least) as satisfactory as reflective equilibrium, any hope to refute the second premise seems largely unpersuasive.

4.3   Challenging the First Premise

Alternatively and preferably, the realist might opt to challenge the first premise through rational reflection's capacity for correction. That is, an objector might try to undermine the justifications for the first premise by appealing to rational reflection.

Remember, the aim of Street's argument is to show that to take the realist position is to be committed to either normative skepticism or forswearing the best science. Therefore, just as Street, we are justified in starting from a realist standpoint to test the necessity of her conclusions. With this purpose, let us place ourselves in the shoes of a moral realist who did believe that (since the very beginning) we have been able to grasp attitude-independent evaluative truths through exercising our capacities of rational reflection.

Take Peter Singer as an example. Singer has claimed that "the capacity to grasp moral truths is simply an application of our capacity to reason, which enables us to grasp *a priori* truths in general, including both the truths of mathematics and moral truths."[29]

---

[29]Peter Singer and Katarzyna de Lazari-Radek, *The Point of View of the Universe*, 2014, p. 185. This is not to say

A realist that took any such position would then be impervious to Street's challenge insofar they would deny the first premise altogether. Though Street has given substantial evidence in favor of evolution's influence on our attitudes (sec. 3.1), a realist that trusted our capacity to correct for these influences is not committed to the claim that our judgements have been inexorably shaped by evolution. This type of realist would accept Street's claim that "if the fund of evaluative judgments with which human reflection began was thoroughly contaminated with illegitimate influence–and the objector has offered no reason to doubt this part of the argument–then the tools of rational reflection were equally contaminated"[30] with the difference that they would have a reason to doubt the first premise. And as Street avows, if this is true, her argument loses its bite.

The objector's argument might take the following form:

1. If the fund of our evaluative judgments is contaminated by evolutionary influences, then rational reflection is incapable of correcting for illegitimate influences.

2. However, rational reflection is capable of correcting for illegitimate influences.

Therefore, the fund of our evaluative judgments is not contaminated with illegitimate evolutionary influences.

And in this way, Street would seem incapable of using evolutionary influence to disqualify rational reflection. Rather than unveiling an inherent flaw in Street's argument, the role of this argument is to show that there is a tenable realist position that escapes the dilemma. Because the dilemma no longer follows necessarily from moral realism, then realist theories of value remain viable and Street's abductive argument in favor of antirealism gives way.

Now that we have found a viable realist position, there are many ways to handle the relationship between evolution and our evaluative attitudes. For instance, one way is to

---

that a realist must be committed to the claim that moral truths must be *a priori*. Moral judgments could also have the form *a posteriori* necessary truths such as Water $= H_2O$ and the argument would not be any weaker for it.

[30]Street, p. 124.

show how evolution has aligned our attitudes with some attitude-independent evaluative truths. David Enoch, for example, defends the claim that survival (or reproductive success) is good, and so evolution pushed us to behave in ways that are (*pro tanto*) good.[31] On the other hand, and following Philippa Foot, Terence Cuneo claims that human flourishing is constitutive of our moral concepts and judgments.[32] Were we to take his view, we could argue that evolution has, fortunately, brought our attitudes closer to what we necessarily take as moral. And as long as these thinkers are committed to the corrective power of rational reflection, they cannot be charged with putting the cart before the horse–i.e., reversing the order of dependence between our evaluative truths and our evaluative attitudes.

Though not necessary, this argument might be rendered even more persuasive if the realist also gave a story of how rational reflection is able to dispose of evolutionary influences. For instance, noting how the fund of our evaluative judgments is no longer fatally contaminated, the non-evolutionary frameworks of pessimism, antinatalism, etc. mentioned above are now back on the table. Alternatively, in light of Street's caution in section 3.1,–i.e., that evolution only influenced our evaluative judgments indirectly through some primitive basic tendencies– we could follow Singer in claiming that rational reflection governed the transformation of our ancestor's basic tendencies into evaluative judgments:

> "The difference made by reason in this transformation is the difference between responding with a friendly lick or an intimidating growl when another member of the group does or does not repay favors, and responding with an approving or a condemnatory judgment. . . . growls and licks leave little to be discussed; ethical judgments leave a lot. To judge, beings have to be capable of thinking and of defending the judgments they make."[33]

Hence, once "we could reflect, and we could choose on the basis of our reflections"[34] we had

---

[31]David Enoch, *Taking Morality Seriously: A Defense of Robust Realism*, 2011, p. 168.
[32]Terence Cuneo, *The Normative Web*, 2011, pp. 36-37.
[33]Singer, *The Expanding Circle*, p. 92.
[34]Ibid p. 92.

control over which evolutionary attitudes to keep or admire and which to abandon or shun. For instance, it is plausible that as our capacity for reflection developed, introspection led us to filter our attitudes through what was conceptually required from them. Such screening may have happened in many ways but, following Cuneo's conceptual analysis introduced above, a plausible method would be to favor those attitudes that promoted human flourishing and disfavor those which strongly opposed it insofar human flourishing is constitutive of our moral judgments. Conversely and following Singer's line once more, it might be that our ancestor's newborn linguistic capacities (and the conversational requirements that ensued) might have led them to discover disinterestedness as a fundamental moral principle. Any of these hypotheses, though mostly the latter, could explain both the expanding circle of ethics and our overall sense of moral progress. The expanding circle of ethics, according to Peter Singer, refers to how we have moved beyond the evolutionary tendency to simply prioritize the very narrow moral circle of "the family and tribe" to include "the nation and race" to the point that "we are beginning to recognize that our obligations extend to all human beings" and plausibly animals and artificial intelligence in the near future.[35] While, the sense of moral progress refers to the feeling that we throughout human history we have made a series of ethical 'discoveries' such as habeas corpus, the wrongness of slavery, the presumption of innocence, and gender equality. In sum, once we have a viable realist position, then describing (a) the correlation between the evolutionary pressures and independent evaluative truths and (b) the methodology by which our attitudes are sieved, becomes easier. And as long as any of these positions are tenable, Street's Darwinian dilemma is not.

5 Conclusion

The strength of this paper's objection lies in the very stringent requirements demanded from a dilemma-type argument. That is, dilemmas survive no loopholes and for Street's

---

[35]Ibid p. 120.

dilemma to have any bite it must embrace *all* coherent realist views, otherwise we stumble with ways of escape such as Singer's. However and in all fairness to Street, her argument does cast a shadow over the realism debate insofar it forces additional commitments on any realist view. Thanks to Street, any coherent realist must now take a stance on whether rational reflection can correct for illegitimate influences and it better be in the affirmative. With that said and though this paper's objection doesn't settle the debate in one way or another, what it does show is that Street's argument doesn't settle the debate either unless she is able to satisfactorily demonstrate the unreliability of rational reflection by independent argument. Furthermore, it might be argued that if rational reflection was able to correct for illegitimate influences, the first part of Street's argument may even benefit the realist. This is because pointing out how and what attitudes have been influenced by evolution drives us to examine and correct for those attitudes and reach, in this way, attitude-independent evaluative truths.

Works Cited

Beiser, Frederick C. (2016). *Weltschmerz: Pessimism in German Philosophy, 1860–1900.*
Oxford: Oxford University Press. 320 pp. ISBN: 978-0-19-876871-5. DOI:
`10.1093/acprof:oso/9780198768715.001.0001`.

Benatar, David (2006). *Better Never to Have Been: The Harm of Coming into Existence.*
Oxford: Oxford University Press. 256 pp. ISBN: 978-0-19-929642-2. DOI:
`10.1093/acprof:oso/9780199296422.001.0001`.

Cuneo, Terence (2007). *The Normative Web: An Argument for Moral Realism.* Oxford,
New York: Oxford University Press. 272 pp. ISBN: 978-0-19-958138-2.

Curry, Oliver Scott, Daniel Austin Mullins, and Harvey Whitehouse (2019). "Is It Good to
Cooperate?: Testing the Theory of Morality-as-Cooperation in 60 Societies". In:
Current Anthropology 60.1. Publisher: The University of Chicago Press, pp. 47–69. ISSN:
0011-3204. DOI: `10.1086/701478`.

Enoch, David (2011). *Taking Morality Seriously: A Defense of Robust Realism.* Oxford:
Oxford University Press. 320 pp. ISBN: 978-0-19-957996-9. DOI:
`10.1093/acprof:oso/9780199579969.001.0001`.

FitzPatrick, William (2021). "Morality and Evolutionary Biology". In: *The Stanford
Encyclopedia of Philosophy.* Ed. by Edward N. Zalta. Spring 2021. Metaphysics
Research Lab, Stanford University. URL:
`https://plato.stanford.edu/archives/spr2021/entries/morality-biology/`.

Haidt, Jonathan (2020). *The Righteous Mind: Why Good People Are Divided by Politics and Religion*. OCLC: 1226718869.

Hendry, Andrew P., Kiyoko M. Gotanda, and Erik I. Svensson (Jan. 19, 2017). "Human influences on evolution, and the ecological and societal consequences". In: *Philosophical Transactions of the Royal Society B: Biological Sciences* 372.1712. Publisher: Royal Society, p. 20160028. DOI: `10.1098/rstb.2016.0028`.

Lazari-Radek, Katarzyna de and Peter Singer (2014). *The Point of View of the Universe: Sidgwick and Contemporary Ethics*. Oxford: Oxford University Press. 432 pp. ISBN: 978-0-19-960369-5. DOI: `10.1093/acprof:oso/9780199603695.001.0001`.

Schwartz, Shalom (2012). "An Overview of the Schwartz Theory of Basic Values". In: *Online Readings in Psychology and Culture* 2. DOI: `10.9707/2307-0919.1116`.

Singer, Peter (2011). *The Expanding Circle*. Princeton University Press. ISBN: 978-0-691-15069-7.

Street, Sharon (2006). "A Darwinian Dilemma for Realist Theories of Value". In: *Philosophical Studies* 127.1, pp. 109–166. ISSN: 1573-0883. DOI: `10.1007/s11098-005-1726-6`.

PRIMING THE FUNCTIONALIST PUMP

A CLOSE ENCOUNTER WITH QUALIA

DAVID VELDRAN

Princeton University

Abstract. In this paper, I argue that a functionalist theory of the mind[1] may provide a complete account of the mind if a certain conceptual move succeeds. In the first part of the paper, I explain the purpose of this move in relation to other materialist theories, showing how it distinguishes functionalism as the strongest. In the second half of the paper, I develop the move itself, providing support for functionalism. The goal of this conceptual move, which attempts to define all mental states as functional states, is to dissolve David Chalmers' "hard problem" of consciousness.[2] This problem's name refers to the conceptual difficulty of explaining, in physical or functional terms, phenomenal states ("raw sensations," or qualia) as opposed to the practical difficulty of explaining non-phenomenal "psychological" mental states, such as attitudes, intentions and beliefs. Whereas the latter problem is "easy" (at least, it is clear *how* to proceed to solve it) the former seems impregnably "hard" because it requires an explanation of the relationship between physical and phenomenal properties. If, in brief, a functionalist can show that the "hard problem" consists only of "easy" ones masquerading as "hard," then she can motivate her claims.

---

[1]By functionalism, I mean, broadly, a system that defines mental states by the function they perform, rather than by their internal qualitative feel.

[2]See D.J. Chalmers, "Consciousness and its Place in Nature" in *Philosophy of Mind: Classical and Contemporary Readings*, 2021, pp. 260-278.

1   Introduction

To undermine the "hard problem" of consciousness requires the functionalist to face that gadfly of old, the problem's instigator and the worrying chink in the materialist's armor: *qualia*. As we will see, the functionalist's best move is not to eliminate *qualia*, since that would eliminate all experience, but to demystify the concept and ultimately *deflate* it by driving at its kernel. Once we glimpse the man behind the curtain that this wizard conceals, explaining phenomenal experience may not be so "hard." Since functionalism, like all materialist views, is an effable, extrinsic, and public theory, it will not intersect with things that are "ineffable," "intrinsic," and "private," three characteristics that Daniel Dennett ascribes to *qualia*.[3] For the functionalist, accommodating these Dennett-style *qualia* is a losing game, but eliminating *qualia*, Dennett's strategy, is to forfeit. The best strategy is a middle path that tinkers, reasonably, with concepts. Though this may not (dis)solve the "hard problem" entirely, the following argument is a crucial step in that direction.

2   Building on Past Materialist Theories

Functionalism has much to learn from the materialist theories that pioneered this strategy of re-defining, but not necessarily eliminating, mental states. Logical behaviorists argued that mental states are simply behaviors or dispositions to behaviors, while identity-theory physicalists insisted they are brain processes.[4] But both theories had drawbacks. As Hilary Putnam points out, logical behaviorism fails in the "X-world," whose inhabitants have learned to suppress their pain-behavior (and reports), but who are still in pain.[5] And the

---

[3]D.C. Dennett, "Quining Qualia" in *Philosophy of Mind: Classical and Contemporary Readings*, 2021, pp. 199-217.

[4]See, for example, J.C.C. Smart, "Sensations and Brain Processes" in *Philosophy of Mind: Classical and Contemporary Readings*, 2021, pp. 46-52.

[5]Hilary Putnam. "Brains and Behavior" in *Philosophy of Mind: Classical and Contemporary Readings*, 2021, pp. 61-70.

identity theory, though it accommodates X-worlders, is "chauvinistic,"[6] Ned Block tells us, since it restricts mental states to one medium (the physical brain). To avoid these problems, functionalism gives a more inclusive account of mental states. If mental states can be defined by their function, it shouldn't matter how they perform this function. Unlike its counterparts, functionalism is truly substrate-neutral. By dealing in "functional states," those states defined by their role in effecting a certain output in response to an input condition, it accommodates not only X-worlders but all systems that can achieve a certain functional state.

But can functionalism defend this move? The qualia-objection (how can phenomenal experience be functional?) is so ingrained that it seems to have vexed the most behaviorist minded thinkers, some of whom struggled to toe the line without denying phenomenal experience.[7] The tension is best summed up in Wittgenstein's remark that a sensation "is not a something, but not a nothing either."[8] To escape this murkiness, the functionalist should reject any hint of a suggestion that mental states have epi-causal existence. That is, the functionalist cannot tolerate phantom-events, since for her, mental states play a causal role. She can thus contest Skinner's claim that "the objection to inner states is not that they do not exist, but that they are not relevant in a functional analysis."[9] On the contrary, if mental states exist, they *are* relevant in a functional analysis.

3   Functionalism's Conceptual Move

To be so relevant, mental states must be of the same logical category as other functional events, lest we run into the "ghost in a machine" problem that plagued dualism.[10] But this

---

[6]Ned Block, "Troubles with Functionalism" in *Philosophy of Mind: Classical and Contemporary Readings*, 2021, p. 99.

[7]G. Graham, "Behaviorism," 2019w.

[8]Ludwig Wittgenstein, *Philosophical Investigations*, p. 108e.

[9]Ibid., p. 35.

[10]For why category errors lead to spurious interactionism, see Gilbert Ryle, "Descartes' Myth" in *Philosophy of Mind: Classical and Contemporary Readings*, 2021, pp. 46-52.

is a hard sell: my blue-sensation feels *sui generis* and allergic to an extrinsic description, one that defines its object in relation to others, as in physics. Billiard balls can hit rocks, but they can't hit my blue-sensation, right? We shouldn't be so sure. Consider Dennett's "experienced beer drinker," for whom the taste of beer has changed over time.[11] What could have caused this, if qualia are intrinsic islands-unto-themselves? His changing attitudes and reactions toward beer have caused this, says Dennett. His culture, say, has schooled him in the art of drinking via billboards and movies, and his fellow sippers have suggested how "hoppy," "earthy," and "local" their beverages are, influencing his (psychological)[12] relationship to beer and concomitantly affecting the taste. If this interaction is possible, his qualia, just like his attitudes, must be amenable to a functional definition. So, are my qualia really immune to billiard balls? Suppose you made a mosaic billboard out of billiard balls that touts the crispiness of pilsners. I pass the billboard on my way to the bar and, when I get there, decide to give their pilsner another try. When I imbibe, I notice a crispiness that was simply not there before. It would seem they are not immune to billiard balls after all.

The reluctance of many people to admit that qualia could be defined functionally may stem from some of our favorite myths which, however loudly they are denied, often lurk within us. The main culprit for our purposes is what Dennett calls the "Cartesian theater," logically-specious arrangement involving me (or something inside me) watching the movie of my experience.[13] Perhaps this metaphor is appealing because it often seems like qualia have no role but to entertain us. Color, we might say, "lights up" the world, making it interesting to look at, but doing little else.

Therein lies the mistake. As anyone who has ever color-coded anything knows, the point of doing so is not to make the information look nice—it is to be able to process information more efficiently. Colors direct us to important features of the world, helping us distinguish

---

[11]D.C. Dennett, "Quining Qualia."

[12]See the distinction between phenomenal and non-phenomenal "psychological" mental state in D.J. Chalmers, *The Conscious Mind: In Search of a Fundamental Theory*, 1996.

[13]Who is inside my homunculus' head? One asks, *ad infinitum*.

between them. If qualia were non-functional, why would we be able to appreciate more shades of green than all other colors?[14] Special receptivity to green would have been an extraordinary boon for our tree-dwelling ancestors, who, in scanning their visual field, would have profited to see camouflaged predators and prey. Just as pleasure and pain have functions–making us approach and avoid–the qualia of colors likewise elicit "outputs" in us. Consider the difference in "meaning" between the qualia of red and green. Compared to green, red-qualia mean to us something like "alert!" which is why we paint stop-signs red, give red flags, and say "red alert!"[15] The "meaning" is not theoretical or metaphorical, but practical and functional: it's cashed out in the well-known effects that colors have on us, causing physiological changes or directing our attention to what is important.

It may be said that while *receptivity* to green is surely functional, the experience of shades of green need not be. Thus, one may argue that I am smuggling in qualia with the decidedly functional component, which in this case is my sensitivity and concomitant behavioral response to certain wavelengths of light. And indeed, it is conceivable that our behavior in response to certain light wavelengths need not depend on phenomenal consciousness of color–or, green-shaded qualia. Many behaviors may be like this. As Block suggests, a functional "access-consciousness"[16] may coordinate my "outputs" in the absence of phenomenal experience, just as I can capably open my door without having a door-quale. But other behaviors might depend on phenomenal consciousness. Put another way, without qualia, some things may go awry. Consider those behaviors so conditioned by the kind of qualia we might call affect–pain, pleasure, etc.–those behaviors which seem to be motivated by a phenomenal state with clearly positive or negative valence, such as pain, hunger, or bliss.

If I couldn't feel pain, I'd have no aversion to keeping my hand in fire, and if I couldn't

---

[14]See Iowa State University: Center for Nondestructive Evaluation (website).

[15]One may object that such "meaning" is arbitrarily given by social convention. However, this only postpones the question: why is this our convention? And why do we have social conventions when it comes to colors?

[16]Involving "rational control of action or speech." See Ned Block, "Concepts of Consciousness" in *Philosophy of Mind: Classical and Contemporary Readings*, 2021, p. 181.

feel hungry, I'd have no motivation to eat. In these cases, it's most clear that qualia are there for our survival, not our entertainment. Similarly, the hedonic pleasure of eating, sex, and even sleep seem more motivational of behavior than epiphenomenal. Were it not for these affective, phenomenal states, it seems plausible that we would be far less likely to engage in the behaviors that precipitate them. Consider the difficulty that Zed, a smart, but purely "access-conscious"[17] zombie has in these domains: could reason alone motivate him to eat enough calories at each meal, for instance? To see the issue with this kind of creature, consider Zed's lack of reasons for his more unruly behaviors, which include binge-eating chocolate cake and wasting his life watching Netflix. Unlike his phenomenal friends, who have a reason to be so self-defeating (namely, pleasure), he has none! Indeed, supposing he is smart enough (and he is programmed, say, to maximize the years of his existence or the number of offspring he produces) he might rather have reason *not* to engage in these unhealthy behaviors. Further, if Hume is right, and reason is "slave of the passions,"[18] how can the passionless Zed reason in the first place? Like the rest of us, Zed can only reason or binge-eat cake without contradiction if he has phenomenal experience–here, a *conscious motivational drive.* It would seem, thus, that qualia have a function, for without such a function, Hume's "passions" would have no bite on us–they would merely be "lighting up" the world. In turn, if Hume is right about reason, then reasoning would not be possible. Because reasoning *is* possible, and because qualia do exercise their powers over us and cause changes in our behavior, qualia must have a function.

All qualia, I believe, have such "meaning," though we may be unaware of it (consider how artfully olfactory qualia teach us how to interact with the world). They are functionally meaningful–that is, they are always directing our behavior–because they don't

---

[17]On non-phenomenal philosophical zombies, see D.J. Chalmers, *The Conscious Mind: In Search of a Fundamental Theory*, 1996. Here, I bring a zombie to life not to rebuke Chalmers or Block directly, but to stress the function of qualia.

[18]David Hume, "On the Influencing Motives of the Will" in *A Treatise on Human Nature*, 1739.

live in ivory towers or beetle-boxes,[19] reserved for the homunculus audiences of the Cartesian-theater. If they did, we couldn't talk about them; I could not say that boldface looks more "salient" than light-text if qualia were truly ineffable, nor could you understand my distinction between a "sharp" knife and and a "soft" blueberry, if they were truly private. When I describe these qualia to you, I am fundamentally describing my functional relationship with the objects associated with them: precisely because it's so "soft," I caress the blueberry gently, and precisely because it's so "alarming," I slam on my brakes before the stop-sign. To borrow a term, the qualia communicate my affordances[20]: they teach me how to interact with the world, thus performing a function.

4   The Cartesian Defense

Unfortunately, the Cartesian-theater trap is not easy to dodge: we all too readily impute agency and personality to the objects of our world. Regarding agency, Nietzsche tells us in the *Genealogy of Morality* that a "seduction of language" makes us posit an inner "doer" for every "deed."[21] Analogously, we have trouble renouncing the idea of an inner experiencer for every experience. One might think this arrangement impossible, so the functionalist's answer is to re-define the experiencer. Just as rocks have no sanctum in which they will their falling, a person has no sanctum in which they behold qualia–the falling and the experiencing are extrinsic, causal events with consequent "outputs." Therefore, "doer" and "experiencer," simply identify the systems that output in response to input and no longer tow the weight of a Cartesian soul. Wielding Nietzsche's insight that "there is no 'being' behind the deed, its effect and what becomes of it...the doing is everything" in this debate, the functionalist may only speak of an experiencer after she deflates that term, defining it as a causal system, not a disembodied subject who observes

---

[19]See Ludwig Wittgenstein, *Philosophical Investigations*, p. 106e.
[20]See J.J. Gibson, "The Theory of Affordances," 2015.
[21]Friedrich Nietzsche, *On the Genealogy of Morality*, p. 26.

the world without participating in it (an oxymoron, to her ears).

To a skeptic of our project, the question of how a quale could be explained functionally seems no less of a non-starter than how it could be explained behaviorally or as a brain-state. But wedged tightly in this "explanatory gap"[22] is an inflated concept of qualia, Dennett-style qualia. Dennett tries to eliminate the gap by eliminating qualia, but this is problematic for two reasons. First, it is not clear what phenomenal experience remains sans qualia and second, it is dubious that qualia can be eliminated. In the footsteps of Descartes, if I ask myself what an evil demon could deceive me about qualia, I find that some aspects of qualia are dubitable (such as their being intrinsic, ineffable, and private). But other aspects, such as their direct[23] and infallible[24] nature (and their existence), seem irrefutable, contra Dennett. Just as Descartes could not doubt that he was doubting, I cannot doubt my blue-quale. If I tried to, I would have to know the object of my doubt—my blue-quale—and then I'd have a blue-quale!

Fortunately, a functionalist may decline to "quine" qualia much like Dennett, without giving ground. As long as apprehending qualia is a functional state, like other mental states, and as long as qualia are purely instrumental, there is no issue. Rid of our myths, we can come to see qualia as a method of informing my body about how to interact with the world. If language can tell me to do something–eat your greens, say–then so can color, texture, sounds, and smells, which communicate different kinds of information. The fact that I can feel these sensory inputs — and do not always process them as a zombie would–is no objection to their functional role.

---

[22]Joseph Levine, "Materialism and Qualia: The Explanatory Gap," 1983.

[23]There is nothing between qualia and my apprehension of them, since my apprehension of a quale is itself the quale.

[24]I cannot be wrong about my quale: to use a Cartesian example, a square tower may appear round from a distance, since my senses can deceive me about reality, but I cannot be deceived about the roundness I see (it is not as if the quale too is squarish, though I fail to see it).

5   Conclusion

Demystified and deflated, qualia are bona fide psychological mental states. Always inclining us, directing us, effecting "outputs" in us, they are functionally meaningful. With this definition, we can begin to dissolve the "hard problem" into an "easier" one, like that Chalmers has called the "meta-problem" of consciousness–namely, why we tend to think consciousness poses a problem.[25] I have tried here to sketch some reasons why the "Cartesian theater" and the Dennett style qualia myths, which lead directly to the "hard problem," are so pervasive, but a full error theory of consciousness should go much farther, asking why, and how, we distinguish between phenomenal and non-phenomenal states in the first place. To conjecture about the future of such a theory, perhaps a deeper scientific investigation of metacognition and interoception[26]–that is, of mental states akin to Block's "monitoring consciousness"[27]–will shed light on the conditions under which sensory information, or cognition in general, becomes phenomenal.

---

[25] D.J. Chalmers, "The Meta-Problem of Consciousness," 2018.

[26] Sensing inner physiological events, like heart rate.

[27] Ned Block, "Concepts of Consciousness."

Works Cited

Block, Ned (2021a). "Concepts of Consciousness". In: *Philosophy of Mind: Classical and Contemporary Readings*. Ed. by D.J. Chalmers. Oxford University Press, pp. 179–191.

— (2021b). "Troubles with Functionalism". In: *Philosophy of Mind: Classical and Contemporary Readings*. Ed. by D.J. Chalmers. Oxford University Press, pp. 99–102.

Chalmers, D.J. (1996). *The Conscious Mind: In Search of a Fundamental Theory*. Oxford University Press.

— (2018). "The Meta-Problem of Consciousness". In: *The Journal of Consciousness Studies* 25.9, pp. 6–61.

— (2021). "Consciousness and its Place in Nature". In: *Philosophy of Mind: Classical and Contemporary Readings*. Ed. by D.J. Chalmers. Oxford University Press, pp. 260–278.

Dennett, D.C. (1991). *Consciousness Explained*. Boston: Little, Brown and Company.

— (2021). "Quining Qualia". In: *Philosophy of Mind: Classical and Contemporary Readings*. Ed. by D.J. Chalmers and D.J. Chalmers. Oxford University Press, pp. 199–217.

Descartes, Rene (n.d.). "Meditations on First Philosophy". In: *The Philosophical Works of Descartes*. Trans. by E.S. Haldane. Cambridge University Press.

Gibson, J.J. (2015). "The Theory of Affordances". In: *The Ecological Approach to Visual Perception*. Psychology Press.

Graham, G.Behaviorism (2019). "Behaviorism". In: *Stanford Encyclopedia of Philosophy*. Ed. by E.N. Zalta.

Hume, David (1739). "On the Influencing Motives of the Will". In: *A Treatise on Human Nature.* Ed. by Selbie-Biggie. L.A.

Levine, Joseph (1983). "Materialism and Qualia: The Explanatory Gap". In: *Pacific Philosophical Quarterly* 64, pp. 354–361.

Nietzsche, Friedrich (2007). *On the Genealogy of Morality.* Ed. by K. Ansell-Pearson and C. Diethe. Cambridge University Press.

Nondestructive Evaluation, Iowa State University: Center for (n.d.). *The Human Eye's Response to Light.* Nondestructive Evaluation Techniques. URL: `https://www.nde-ed.org/NDETechniques/PenetrantTest/Introduction/lightresponse.xhtml`.

Putnam, Hilary (2021a). "Brains and Behavior". In: *Philosophy of Mind: Classical and Contemporary Readings.* Ed. by D.J. Chalmers. Oxford University Press, pp. 61–70.

— (2021b). "The Nature of Mental States". In: *Philosophy of Mind: Classical and Contemporary Readings.* Ed. by D.J. Chalmers. Oxford University Press, pp. 79–85.

Ryle, Gilbert (2021). "Descartes' Myth". In: *Philosophy of Mind: Classical and Contemporary Readings.* Ed. by D.J. Chalmers. Oxford University Press, pp. 46–52.

Skinner, B.F. (n.d.). *Science and Human Behavior.* New York: Macmillan.,1953.

Smart, J.C.C. (2021). "Sensations and Brain Processes". In: *Philosophy of Mind: Classical and Contemporary Readings.* Ed. by D.J. Chalmers. Oxford University Press, pp. 46–52.

Wittgenstein, Ludwig (2009). *Philosophical Investigations.* Trans. by G.E.M. Anscombe and P.M.S. Hacker.