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The Reliable Revisionist

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Augustana College

The Reliable Revisionist

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Philosophy 440: Advanced Seminar

Professor Heidi Storl

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The Reliable Revisionist

“Rationalist approaches in philosophy stress ‘the power of a priori reason to grasp substantial truths about the world’ (Williams 69). Rationalist approaches in moral psychology, by extension, say that moral knowledge and moral judgment are reached primarily by a process of reasoning and reflection” (Haidt 2). Here is a discussion on if rationality (the head) can stem from reliable processes and make reliable moral judgements. *Neuroexistentialism*, edited by Gregg D. Caruso and Owen Flanagan, draws on different traditions and disciplines from a diverse collection of essays that elucidates the human predicament, and suggest new areas of research. The essay I will focus on by Paul Henne and Walter Sinnott-Armstrong, contributors of *Neuroexistentialism*, is called “Does Neuroscience Undermine Morality,” and aims at figuring out which moral judgments we can still trust. The importance of this text lies within the fact that we want to know whether or not our moral judgements are correct because if they are not, we will be more likely to unintentionally misbehave. I take it as a given that we care about doing the right thing and becoming more moral. We need to show that our moral judgments stem from reliable processes, so we can know which beliefs can make reliable judgements. Many have assumptions toward revisionism or conservatism being reliable, I believe that if you are a revisionist your first order intuitions that are not concerned with emotional processes are reliable. First, I will set a framework to begin. Then, I will display three key arguments that provide support for the line of argument. Finally, I will look at possible counter arguments.

Key Terms

Neuroexistentialism is classified as the third wave existentialism. “What we call neuroexistentialism is a recent expression of existential anxiety over the nature of persons” (Caruso & Flanagan 3). Caruso and Flanagan tell us neuroexistentialism is caused by the rise of

the scientific authority of the human sciences, and the clash between the scientific and humanistic image of persons. This clash is caused by social or political rearrangements that involves acknowledging the anxiety and analyzing its cause along with an attempt to gain back what makes human life meaningful. This anxiety becomes present in today's neuroscience and makes a vivid picture of Darwin's message from hundreds of years ago. "Humans are animals – not half animal, not some percentage animal, not just above the animals, but 100 percent animal" (Flanagan & Caruso, par. 1), removing any idea of the soul and self, and making it simply an illusion. A central preoccupation lies here focused on human purpose and meaning, along with the anxiety that maybe there is none.

"A claim on which certainly all moral philosophers agree is that no judgments are practical, which is to say that they must be capable in some sense of guiding or influencing human behavior" (Boatright 316). Meaning, that our **moral judgments** keep us in line and prevent us from misbehaving when temptation rises. Many neuroscience and psychology studies have presented to us flaws in our moral judgments. Jonathan Haidt gives a broad definition of "moral judgement" as defined as "evaluations (good versus bad) of the actions or character of a person that are made with respect to a set of virtues held by a culture or subculture to be obligatory" (Haidt 6). Henne and Armstrong tell us they're "emotional, inconsistent, based on a distant evolutionary past, susceptible to racial and gender bias, and so on" (Henne & Armstrong 54). Subjective moral judgements and objective moral judgments should be distinguished as well. Subjective moral judgements are the type of moral judgements that involve activity in emotional and social areas. Objective moral judgements are those that involve activity in working memory. As a revisionist is concerned, moral judgments are objective.

Henne and Armstrong tell us that **Conservatives** believe that we should accept first order moral principles. Meaning, they think ordinary moral judgements are mostly correct. Henne and Armstrong tell us that **Revisionist** believe that moral judgements should be revised to bring them in line with theory. Meaning, they think moral judgements can stray from ideas that reason tells us is correct. In the text, a case is given where moral judgments depend on disgust. Revisionists, are likely to decline these moral judgments because disgust can lead us into morally questionable behavior. Even though there is a know that disgust can lead us into morally questionable behavior, Conservatives are likely to accept these moral judgments because it can prevent us from possibly making a mistake.

Leon Kass, a noted conservative bioethicist, has argued for what he calls “the wisdom of repugnance.” According to Kass, disgust as a practice such as human cloning can be “the emotional expression of deep wisdom, beyond wisdom’s power completely to articulate it” (Kass 36). Similarly, self-described conservatives surveyed by Haidt and Graham (2007) said that whether “someone did something disgusting” was quite relevant to deciding that an action was right or wrong, a view that was not shared by self-described Liberals (Inbar, Pizarro, & Bloom 715).

How a person responds to the moral judgements depending on disgust depends on higher order beliefs.

Many philosophers have advocated that intuitions are a close necessary condition for the acceptability of moral theory. **Higher order principles** involve complex judgmental skills, critical thinking, and problem solving. They are central in determining reliability issues because they help distinguish between reliable judgements and unreliable judgements. If we are not able to determine if our moral judgments are reliable, then which moral judgments can we trust? The appeal to the higher order principles may help to clarify this problem though. Frances Kamm

tells us she is not concerned with emotional responses, but “the judgements about the permissibility or impermissibility of certain acts:”

These judgments are not guaranteed to be correct {but} if they are, they should fall into the realm of a *priori* truths. They are not like racist judgments that one race is superior to another. The reason is that the racist is claiming to have “intuitions” about empirical matters and this is as inappropriate as having intuitions about the number of planets...Intuitions are appropriate to ethics because ours is an a priori, not an empirical investigation (Allman & Woodward 166).

An example of this is the principle of OEUR.

OEUR stands for **Order Effects Undermine Reliability**. If anyone’s moral judgments exhibit genuine order effects, then these moral judgements are unreliable” (Henne & Armstrong 60). If there are order effects, the processes that lead to the moral judgments are unreliable. So, some moral judgements would be undermined. Zachary Horne and Jonathan Livengood use genuine ordering effects to prove this. A genuine ordering effect “occurs when each participant in a study is presented the same collection of stimuli, some participants receive the stimuli in one order, some participants receive the stimuli in a different order, and participants who receive stimuli in different orders perform differently on some task that they complete after they have received all of the stimuli in the collection” (Horne & Livengood 7). If There are two pieces of evidence, A and B. Some participants will see the information in the order A then B. Other participants will see the information in the order B then A. For example, the first set of participants are given DNA evidence then eye-witness evidence, and come to the conclusion that the defendant is guilty. Then, the second set of participants are given eye-witness evidence then DNA evidence, and come to the conclusion that the defendant is not guilty. A genuine ordering effect would have just occurred since the participants were in different

conditions, and have answered the question significantly different. Although participants were seeing the evidence in different orders, you may think our moral judgements need to be consistent in order to be reliable. These inconsistencies in our judgements are unreliable.

Tackling the Revisionist Problem

Revisionism is considered unreliable because of the normative principle called OEUR. If you are a revisionist, then a trust theory (head) is how you would determine if you could trust your moral judgments. Due to this, your first order intuitions are not reliable because they rely on genuine order effects. These moral judgements are not reliable.

My response to this would be that there are safeguards in our brain that help to counter possible order effects that might produce error such as, experience and data analysis, group debate and challenge, governance, and monitoring. Dr. Brusman tells us that safeguards reduce the risk of red-flag conditions that can lead to bad decisions. We can greatly improve our odds of making the correct moral judgments with few to no mistakes. Experience and data analysis can be collected to offer absence of biases. This safeguard can help you make an informed decision to move forward in the correct direction efficiently to achieve a goal. Group debate and challenge can help expose irrelevant factors in your thinking as you identify challenges with others. Without this safeguard you have nothing to confront irrelevant factors, so there will be no need to change your thinking even when it is wrong. Governance provides to us reinforcement for any of our flawed judgements. Monitoring lets us be aware of our processes to think and rethink carefully. By monitoring our processes, we can compare our behavior with a set of standards to help make the best judgments.

Many decisions require more than one function in the brain working together at once.

Harvard Business Review tells us that we need to be aware of environmental changes that could help us. We will not be able to do this unless we are able to prioritize the most important tasks while shutting out all other distractions. They give us an example of a control network safeguard used in a soccer player's mind during a play:

The soccer player so intent on getting off a winning shot may not notice a wide-open teammate who could score more easily if he were passed the ball. The player may also fail to realize that time is running out—ignoring an entirely separate and more critical priority because he's so focused on shooting. It's a tricky attention-management challenge the control network deals with. On one hand, it needs to prevent distractions from every shiny object thrown in front of us. On the other hand, it needs to let us respond when one of those shiny objects is an opportunity or an important demand. To pursue these twin objectives concurrently, the control network hedges. It biases the brain to notice and respond to information related to both our current task and other outstanding goals. (Not just any stimuli, only those related to goals.) To keep us agile, the control network aims for the sweet spot: It tilts the scales in favor of actions compatible with our goals but not to such an extent that our resources are overcommitted. This safeguards our flexibility in unpredictable environments, but it also predisposes us to distraction. Not every player sprinting across the field is open for a pass and better positioned for a shot, and we shouldn't have to look at the clock every few seconds to make sure we have time to shoot. (Waytz & Mason, par. 44).

This safeguard has allowed the soccer player to recognize the field is open, there is time left on the clock, a player is open for a pass, and they're in the right position to shoot. This safeguard in our control network has now helped the soccer player avoid mistakes in his judgment, and be led to victory.

Yes, these safeguards may not be able to prevent every risk of OEUR, but in knowing that it is also important to recognize that life will never let us get every judgment right. These

safeguards will significantly improve our first order intuitions to where our moral judgments are considered reliable.

Argument One

A mistaken belief naturally leads to a signal to revise one's view. By self-correcting we can better grasp the weight of the moral decision at hand. To do so, we must have what Rene Descartes calls "clear and distinct ideas." "When Descartes reflects on why he is certain of it, he says 'in this first knowledge, there is nothing except a clear and distinct perception of what I affirm.' He goes on to argue that at the time we consider it, a thought which is clear and distinct we must believe to be true, we cannot doubt it" (Routledge 2). Clear and distinct ideas are those perceptions and concepts that we grasp clearly, and cannot be doubted. They are defined as those perceptions which are so self-evident that even though they are held in the mind, they cannot be logically doubted. An example of a clear and distinct perception would be A equaling A. You may be eager to think of genuine ordering effects here, but the process of self-correction is not unique, instead it is a repetitive cycle until a mistaken action, belief in this case, is gone.

In the following argument below "SC" stands for self-correction, "CD" stands for clear and distinct ideas, and "IR" stands for improving reliability.

$$SC \rightarrow CD$$

$$CD \rightarrow IR$$

$$SC \rightarrow IR$$

If you are able to self-correct, then you can identify errors and contradictions by having clear and distinct ideas. If you are able to identify errors and contradictions by having clear and distinct

ideas, then you can improve the reliability of your moral judgments. So, having the ability to self-correct helps you improve the reliability of your moral judgments. Therefore, due to self-correction, if you are a revisionist your first order intuitions are reliable.

There are three dimensions that are involved in self-correction. “(a) The application of concepts (the actions of applying or misapplying a concept). (b) The ability to evaluate (a). (c) The modification of (a) according to the results of (b)” (Satne). First you must misapply a concept in order to correct it. Secondly, you have to be able to evaluate by looking at the weight of the different moral considerations, or by engaging with the world. Then, you must modify that concept until the concept is corrected. You will repeat this process repeatedly until you are left with the correct concept. For example, take a simple math equation. You can check your answer to see if you are correct. If you are not correct, you may recognize the fault by weighing the answer or engaging in the world. This shows that self-correction improves the reliability of your mathematical moral judgments.

Neuroscientists have taken the time to monitor errors to look at how the brain is processing things from A to Z. This is where they found evidence in the centro-parietal region of the brain. The neuroscientists tell us “when participants made a mistake, they became really focused on correcting *that* response—almost to the point that they lost sight of the fact that they were supposed to keep moving on to the next trial,” (Sukel, par. 12). The participants did have trouble recognizing their mistakes as wrong beyond an initial level, but with the help of the repetitive cycle of self-correction, and engaging in the world the signal to revise one's view and self-correct will arise naturally until modification has taken place. Having the ability to assess a claim for accuracy by self-correcting can significantly improve the reliability of an individual's

moral judgments. In return making your first order intuitions that are not concerned with emotional processes reliable, if you are a revisionist.

Argument Two

Many common individuals have a misinterpretation of moral matters by believing that one idea is clearly right, and the other idea is clearly wrong. This is not the case though, moral matters at many times lack a concrete answer. “Even when one comes to a decision in the end, doubts may persist. Good judgment must take into account these doubts, and address uncertainty in a way that is both fair and productive” (Schaefer & Savulescu, par. 16). Since this is the case, having good judgement is a necessary condition in this type of situation.

In the following argument below “GJ” stands for good judgement, “D” stands for doubts, and “U” stands for uncertainty.

$$GJ \rightarrow D$$

$$D \rightarrow U$$

$$GJ \rightarrow U$$

If you have a good judgment, then you must take doubts into account that are both fair and productive. If you take doubts into account that are both fair and productive, then the uncertainty that lies in the revisionist view diminishes, and your first order intuitions are reliable. So, if you have good judgement the uncertainty that lies in the revisionist view diminishes, and your first order intuitions are reliable. Therefore, if you are a revisionist your first order intuitions are reliable.

Embracing uncertainty is critical to making good judgements. Margie Warrell, a Forbes contributor tells us that “the reality is that in our fast changing, unpredictable and accelerated workplace and world, it’s those who are willing to embrace uncertainty (ie. doubts) and take decisive action, risky action, despite the many "unknowns" who will reap the greatest rewards” (Warrell, par. 4). We live in a time of uncertainty, and there's nothing we can do about it but to embrace this uncertainty. We can embrace this uncertainty by getting comfortable with taking calculated risk. In other words, to be successful you have to embrace the uncertainty by making good judgements. A great example is the well-known trolley problem given to many student philosophers:

A run-away trolley is headed toward 5 people and will kill them unless diverted by a switch, in which case it will kill 1 person. Most people judge it permissible to flip the switch. On the other hand, most people judge it impermissible to push a large man in front of the trolley, killing him but stopping the trolley and saving the five. Almost no one is able to provide a reasoned justification for these judgements; instead, they present themselves as immediate reactions whose source or basis is not readily consciously accessible (Allman & Woodward 165).

There is an uncertainty that lies here in knowing if we are making the correct judgement. No matter how many times we practice this particular problem there will still be an uncertainty because it is nearly impossible to provide a reasoned justification for a judgment as such. The only thing we can do is get comfortable with this uncertainty, be prepared to take calculated risk, and remember that it is those who “embrace uncertainty (ie. doubts), take decisive action, risky action, despite the many "unknowns" who will reap the greatest rewards” (Warrell, par. 4). Embracing the uncertainty that lies within a revisionists view is critical to making good moral judgements.

Recently, researchers are finding neural signals that quantify risk-related factors, uncertainty, and ambiguity of possible outcomes in the brain. Schnabel tells us that the ventral tegmental area (VTA) in the midbrain activates when the a human is presented with the possibility of an award. The dopamine-producing neurons that become active in the VTA are code for anticipated value of the award. Meaning, that we are not indifferent toward risk and uncertainty. We know it exist and it's not going anywhere, so we need to embrace it. Schnabel asks the question; how do we know this? "Several recent studies have found that separate groups of neurons in the prefrontal cortex become significantly more activated as the uncertainty associated with two possible outcomes increases" (Schnabel, par. 8). The insular cortex, called the Insula also is code for uncertainty related signals. It represents either a bad set of outcomes from the choice at hand, or a good set of outcomes from the choice at hand. We are not sure which one, but evidence of brain-imaging studies points towards the Insula representing a bad set of outcomes. This is the reason why we are not indifferent towards uncertainty and risk taking. Similar evidence lies in the brain ability to produce outcomes by tracing ambiguity. Schnabel tells us of a recent study in by Caltech's Ming Hsu and his colleagues in 2005. The study presented evidence that "the perception of ambiguity, as opposed to mere risk, correlated with activity in the amygdala, an emotion-processing center in the limbic system, and also in the orbitofrontal cortex, and "in the same study, individuals with damage to their orbitofrontal cortices were found to be relatively insensitive to ambiguity in their decisions" (Schnabel, par. 16). The ability to make good moral judgements has a direct relationship with addressing these uncertainties in our ever-changing world, and systematically in the brain. This direct relationship significantly improves an individual's moral judgments making your first order intuitions reliable if you are a revisionist.

Argument Three

According to Nozick, a bias “involves the uneven application of standards to different groups or individuals... there will be a bias in the selection of standards when the explanation of these standards rather than others were chosen, or why these weights rather than others are given, in part involves the belief by some that these very standards and weights would work to the exclusion or detriment of particular groups and this motivated them to put forward these particular standards” (Nozick 103). Nozick's definition of bias shows that people can violate their own norms, and why doing so is a universally problematic issue. Schaefer & Savulescu tell us this definition is too broad, and instead we should use a narrower definition such as, “taking factors into account in a moral judgment that are not relevant to that moral judgment” (Schaefer & Savulescu, par. 33). We want to be able to properly defend the importance of bias avoidance. Biases are feelings of prejudice towards a thing, person, or group compared with another. These ways are usually considered unfair. This feeling is usually not allowed in its derivation. Avoiding biases in your moral reasoning process is favorable because they silence irrelevant factors that can mislead your moral judgements.

In the following argument below “S” stands for silent irrelevant factors, “I” stands for influence, and “R” stands for reasoning.

$$S \rightarrow \sim I$$

$$\sim I \rightarrow R$$

$$S \rightarrow R$$

If you silence irrelevant factors in your moral reasoning process, then you are more likely to not be influenced by irrelevant factors that can distort your reasoning. If you are more likely to not

be influenced by irrelevant factors that can distort your reasoning, then your first order intuitions are reliable. So, if you silence irrelevant factors in your moral reasoning process, then your first order intuitions are reliable. Therefore, if you are a revisionist your first order intuitions are reliable.

Biases result in taking factors into account in your judgment that are not relevant. “This noise tends towards arbitrary judgments, rather than well-reasoned ones that factor in considerations that are pertinent to the issue at hand” (Schaefer & Savulescu, par. 34). We need to eliminate this noise completely and remain from being influenced by such factors in the first place. I would like to point out John Rawls, theory of justice as an example of revisionism. He tells us that we should eliminate biases toward the rich and poor, religious and non-religious perhaps by using the “veil of ignorance.” The veil of ignorance tells us we should agree on certain principles without any know of our position in society or what the good is. The point of this is “that no one is advantaged or disadvantaged in the choice of principles by the outcome of natural chance or the contingency of social circumstances. Since all are similar situated and no one is able to design principles to favour his particular condition, the principles of justice are the result of a fair agreement or bargain” (Routledge 1). This procedure would eliminate all possible biases.

The amygdala is a subcortical structure that plays a part in emotional learning and evaluation. A study called “Performance on Indirect Measures of Race Evaluation Predicts Amygdala Activation” focuses on an emotional learning experiment in connection with bias. In experiment one, White Americans focused on unfamiliar Black and White males. In this experiment the amygdala activation was correlated with measures of race evaluation, but not with conscious expression of race attitudes. In the second experiment, known and exemplary

Black Americans who were just as well liked as White Americans were evaluated by the participants. The results of these studies suggested that the “amygdala and behavioral responses to Black-versus-White faces in White subjects reflect cultural evaluations of social groups modified by individual experience” (Phelps 1). Irrelevant factors such as feelings and emotion towards White and Black Americans influenced the results given by the participants instead of well-reasoned factors. If they were to have silenced these biases, then their first order intuitions would have been more reliable.

Criticisms

The first criticism is the time at hand regarding self-correction. How long would it take for the opportunity to present itself to be able to evaluate a moral consideration? The ability to evaluate the application of concepts by engaging in the world and weighing different moral considerations. By the time you may have evaluated the application of concepts, you may of already made the moral judgement, or of been forced to make the moral judgement. At this point you may have made a bad moral judgement. Not to mention this process as stated needs to be repeated until you are left with the correct concept, which in return could point to many bad moral judgments. My response to this is that we have a lot of experience that has produced a lot of different results. If there is a time crunch, we should favor the moral judgement that has a history of doing the right thing. This response is favorable to John Stuart Mill’s response to the utilitarianism objection “time to calculate.” The “time to calculate” objection tells us that in real life there is no time to calculate the effects of our action in accord with happiness, so utilitarianism is useless. Mill’s response is that “there has been ample time, namely, the whole past duration of the human species. During all that time, mankind had been learning by experience... the effects of some actions on their happiness; and the beliefs which have thus

come down are the rules of morality (Utilitarianism). Showing, that we don't need to do direct calculations and we can apply rules of thumb, similarly with self-correction as well.

The second criticism at hand is the problem with the ventral tegmental area (VTA). The VTA will give its owner dopamine every time the person thinks they did something good (ie. a reward), even if that's something bad for the whole. For example, a drug addict with heroine. So, how does the VTA and it causing us to "not indifferent toward risk and uncertainty" a positive thing for us and our moral judgements? The same things happen when a person falls in love. The VTA in the brain floods the caudate nucleus with dopamine. The caudate then floods with more dopamine, and the more dopamine the higher a person feels. This same system becomes activated when someone takes cocaine. My response to this is that there are protective factors in the individual, family, peers, schools, and communities. The VTA is only one part of the brain. Engaging in the world and fact come from different parts of the brain, which also help to diminish uncertainty in the brain. For example, the first time we had a cookie as an award we thought it was good, and it raised our levels of dopamine. By engaging in the world, we now know that cookies are bad and are unhealthy. Someone had to take the risk and uncertainty of eating a lot of cookies and getting a stomach ache or overweight. This also includes finding facts such as calories, sugar, and the amount of sugar and calories we should have. To be successful we had to make a correct moral judgement about whether or not to stop eating cookies. We wouldn't of know this unless we took the risk and embraced the uncertainty though.

The third criticism at hand presents a question, how are we just not robots? Many individuals may say that we can't and don't choose what we want, we are just doing what we are told by sedimentation and the chemicals in our brain. Some individuals may go as far as saying that anybody with the right technology can know us, so why aren't we just robots doing what we

are forced to do? My response to this is that even if you don't have free will, you're still a person. For example, your dad has programmed in your brain to be a professional tennis player from day one. The dad represents the chemicals in the brain. Now, you are on the path to becoming a professional tennis player, but on the court you've come up with a strategy about how to place and hit the ball better. You picture the court as a piece of art with different lines, sections, and colors. In the process you have developed a love for art. It has made you who you are today. This shows that there are other factors outside the brain, besides your dad, that make you who you are. Even without the free will to choose whether or not you were going to be a tennis player, you still had this new thing (art) that made you who you are.

Works Cited

Allman, J. and Woodward, J. (2008), WHAT ARE MORAL INTUITIONS AND WHY SHOULD WE CARE ABOUT THEM? A NEUROBIOLOGICAL PERSPECTIVE*.

Philosophical Issues, 18: 164-185. doi:10.1111/j.1533-6077.2008.00143.x

Caruso, Gregg D., and Owen J. Flanagan. Neuroexistentialism: Meaning, Morals, and Purpose in the Age of Neuroscience. Oxford University Press, 2018.

CYBULSKA, Eva. Nietzsche's Übermensch: A glance behind the mask of hardness. Indo-Pac. j. phenomenol. (Online) [online]. 2015, vol.15, n.1 [cited 2019-01-20], pp.1-13. Available from:<http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1445-73772015000100003&lng=en&nrm=iso>. ISSN 1445-7377.
<http://dx.doi.org/10.1080/20797222.2015.1049895>.

Haidt , Jonathan. *The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment* . 31 Oct. 2000,
www.motherjones.com/files/emotional_dog_and_rational_tail.pdf.

Horne, Zach & Livengood, Jonathan. (2015). Ordering Effects, Updating Effects, and the Specter of Global Skepticism. Synthese. 10.1007/s11229-015-0985-9.

JAMA - Journal of the American Medical Association, American Medical Association, 9 Jan. 2016, experts.illinois.edu/en/publications/ordering-effects-updating-effects-and-the

specter-of-global-skept.

Kaebnick, Gregory E. "Reasons of the Heart: Emotion, Rationality, and the 'Wisdom of Repugnance.'" *The Hastings Center Report*, vol. 38, no. 4, 2008, pp. 36–45. *JSTOR*, www.jstor.org/stable/25165349.

Mason, Adam WaytzMalina. "Your Brain at Work." *Harvard Business Review*, 1 Aug. 2014, hbr.org/2013/07/your-brain-at-work.

Nozick, Robert. *The Nature of Rationality*. Princeton University Press, 1995.

Phelps, Elizabeth A., Kevin J. O'Connor, William A. Cunningham, E. Sumie Funayama, J. Christopher Gatenby, John C. Gore, and Mahzarin R. Banaji. 2000. Performance on indirect measures of race evaluation predicts amygdala activation. *Journal of Cognitive Neuroscience* 12(5): 729-738.

Routledge Taylor & Francis Group. *Descartes, the Cogito and Clear and Distinct Ideas*. cw.routledge.com/textbooks/alevelphilosophy/data/a2/descartes/descartescognito.pdf.

Routledge Taylor & Francis Group. *Rawls and Nozick on Justice*. documents.routledge-interactive.s3.amazonaws.com/9781138793934/A2/Political/JusticeRawlsNozick.pdf.

Schaefer, G Owen and Julian Savulescu. "Better Minds, Better Morals: A Procedural Guide to Better Judgment" *Journal of posthuman studies : philosophy, technology, media* vol. 1,1

(2017): 26-43.

Schnabel, Jim. *Risk, Uncertainty and Ambiguity in the Brain*. 24 July 2008,
www.dana.org/News/Details.aspx?id=42822.

Sukel, Kayt. "How the Brain Learns from Mistakes ." *Dana Foundation - Home*, 16 Oct. 2012,
dana.org/News/Details.aspx?id=43246.

"Interaction and self-correction" *Frontiers in psychology* vol. 5 798. 23 Jul. 2014,
[doi:10.3389/fpsyg.2014.00798](https://doi.org/10.3389/fpsyg.2014.00798)

Warrell, Margie. "Why Embracing Uncertainty Is Critical To Your Success." *Forbes*, Forbes
Magazine, 21 July 2015, [www.forbes.com/sites/margiewarrell/2015/07/21/why-](http://www.forbes.com/sites/margiewarrell/2015/07/21/why-embracing-uncertainty-is-critical-to-your-success/#1d4bb97673cd)
[embracing-uncertainty-is-critical-to-your-success/ #1d4bb97673cd](http://www.forbes.com/sites/margiewarrell/2015/07/21/why-embracing-uncertainty-is-critical-to-your-success/#1d4bb97673cd).

Working Resources . "The Brain Science of Bad Decisions." *Working Resources - Managing
with Emotional Intelligence: The Power of Empathy*,
[www.workingresources.com/professionaleffectivenessarticles/the-brain- science-of-bad-](http://www.workingresources.com/professionaleffectivenessarticles/the-brain-science-of-bad-decisions.html)
[decisions.html](http://www.workingresources.com/professionaleffectivenessarticles/the-brain-science-of-bad-decisions.html).

Yoel Inbar, David A. Pizarro & Paul Bloom (2009): Conservatives are more easily disgusted
than liberals, *Cognition & Emotion*, 23:4, 714-725