The Neglect of Reason
A Plea for Rationalist Accounts of the Effects of Virtual Violence

Johnny Hartz Søraker
Department of Philosophy, University of Twente
Postbus 217, 7500AE Enschede, the Netherlands
Phone: +31-64-705-9544, e-mail: j.h.soraker@utwente.nl

Abstract
The purpose of this paper is to discuss how experiencing virtual violence might lead to changes in our moral judgments through a process of rational deliberation. This perspective is proposed as a complementary alternative to the dominant tendency in current research to exclusively focus on how virtual violence affects our emotions as behavioural dispositions. I will propose and consider a rationalist, descriptive account that is based on sound principles for case-based reasoning. The controversial notion of 'virtual rape' will be used as an example of how the rationalist and emotivist accounts ask fundamentally different questions and how the proposed account can yield an increased understanding of how experiences in virtual worlds can change our moral judgments. This approach can, in turn, yield increased understanding of how games and virtual worlds ought to be designed in order to foster rational deliberation. The ultimate aim of this paper is to make a plea for increased focus on rational deliberation in virtual world research, which calls for increased interdisciplinarity and active collaboration towards a more nuanced and constructive debate.

Keywords:
Moral judgment, casuistics, virtual violence, virtual rape, aggression, desensitisation, media effects, emotivism, rationalism

INTRODUCTION

Do we reach moral judgments on the basis of conscious rational deliberation or intuitive emotions – and to what extent does moral deliberation determine our actual behaviour? This age-old question, sometimes described in terms of emotivist versus rationalist theories of moral judgment, has been subject to heated debate in philosophy, psychology and other disciplines. It lies at the heart of ethics in the sense that moral rules and principles seem redundant if our judgments are primarily dictated by more or less instinctive emotions. Whether or not we subscribe to a rationalist or emotivist theory of moral judgment also determines how we approach a number of other problems. In this paper, I will focus on how it determines what kinds of questions we ask with regard to changes in our moral judgments following certain experiences – experiences of virtual violence in particular. By 'virtual violence' I mean engaging in or witnessing acts of simulated violence in interactive computer-generated environments. A typical case would be a virtual environment in which you witness or perform simulated acts of murder, torture or rape – or if a representation of you (your avatar) is being the victim of such acts. If our moral judgments are primarily motivated by our emotions, the crucial question becomes: how might our *emotional dispositions* change as a result of experiencing virtual violence? If our judgments are primarily motivated by reason, the crucial question becomes: how might our *reasoning* change as a result of experiencing virtual violence? The vast majority of claims regarding the effects of virtual violence,

by researchers as well as journalists and policymakers, seem to take for granted that virtual violence changes our emotions – and rational deliberation is usually left out of the picture.[1]

In focusing on effects on reasoning *in addition* to effects on emotions, our accounts of the effects of virtual violence could become less deterministic, more acknowledging of the intellectual capabilities of users, and lead to a more nuanced and less polarized debate. More pragmatically, it seems unlikely that games and virtual worlds will be purged of violence, so a better understanding of how our reasoning might change because of virtual violence could allow developers to counteract such effects by adding elements that foster deliberation, instead of removing virtual violence. For instance, if it is illusory to expect first-person shooters to disappear from the market, we could focus on how such violence ought to be portrayed in order to trigger deliberation in the player. In other words, it is not my aim to contribute to what Killen and Smetana has referred to as the pitting of "'cold, hard, logical reasoning' against 'hot, intuitive, emotions' [and] a dichotomized and often stereotyped portrayal of emotions versus moral cognition"(2005, p. 481) , but rather make a plea for a closer integration of rationalist and emotivist accounts of the effects of virtual violence.

In this paper, I will use the controversial notion of 'virtual rape' to illustrate how virtual violence might affect our moral judgments through a process of rational deliberation, and I will use casuistics, or principles for sound case-based reasoning, as a descriptive model of such moral reasoning. Before turning to the outline of this model and its applicability to virtual violence, I will first discuss some problems with emotivist claims about the effects of virtual violence.

SOME PROBLEMS WITH EMOTIVIST CLAIMS ABOUT THE EFFECTS OF VIRTUAL VIOLENCE
If our moral judgments result from more or less instinctive emotions, it is difficult to answer questions regarding the effects of virtual violence in any other way than by external observation – such as experiments and surveys. A number of such studies have been done and to some degree "the scientific debate about whether exposure to media violence causes aggressive behaviour is over ... and should have been over 30 years ago" (Anderson, Gentile, & Buckley, 2007, p. 4). Although the studies do clearly show that exposure to virtual violence causes a greater risk for aggressive and immoral behaviour, there are clearly a number of factors that determine individual differences –illustrated by the fact that the vast majority of those who engage in extreme acts of virtual violence do not carry this behaviour into the real word. According to the 'risk and resilience' perspective in psychology, there are a number of factors that "protect" many of us from 'risk exposure'. Although rational cognition is usually counted as *one* contributing factor, for instance as part of 'present internal states' in the influential General Aggression Model employed by many researchers (cf. Anderson et al., 2007, pp. 40-58), one purpose of this paper is to argue that rational deliberation should be counted as *the* most important of these factors. Indeed, this individual, rational 'resilience' can be seen as one of the main sources of the methodological problems that plague many of these experiments. In other words, rational deliberation is arguably the most important cause for why the following problems prohibit a straightforward causal explanation of the effects of virtual violence:

1. **Correlation is not causation**: In many studies, a significant correlation has been found between violent behaviour and playing video games (cf. Anderson & Dill, 2000). This kind of correlation has also been emphasized by the media with regard to both the Virginia Tech. and Columbine tragedies. One of the biggest (although probably over-emphasized) problems in psychological experiments is of course that correlation does not imply causation. If a significant correlation is

---

[1] Interestingly, what seems to be a neglect of reason in psychological research on the effects of virtual violence stands in stark contrast to Haidt's claim that modern psychological research on moral judgment has generally been dominated by rationalist models (Haidt, 2001). Haidt points out that psychology embraced emotivist accounts in the late 19th century, as exemplified by the dethroning of rationality found in psychoanalysis and behaviourism. This paradigm was then trumped by the influence of explicit rationalists Kohlberg and Piaget, an influence that still holds in most areas of experimental psychology according to Haidt.

found, this correlation can be due to 1) playing violent games and being a violent person could both stem from a shared cause, or 2) being a violent person in the first place might lead to playing more violent video games, not the other way around. This is a point that has been raised *ad nauseam* as a rebuttal of virtual violence research, but it is still a severe obstacle.

2. **Expectancy effects**: It is difficult to conceal the purpose of these experiments. If a subject is exposed to virtual violence and is then placed in a laboratory setting where it is possible to display acts of violence, he or she can easily figure out the purpose of the experiment and act in strict accordance or opposition to what is believed to be the researchers' hypothesis. This is particularly problematic when the subjects are college students, which is often the case (cf. Anderson et al., 2007), since they – especially psychology students – are more likely to reflect on the purpose, methodology and potentially undisclosed aspects of the experiment.

3. **Intervening experiences**: Even if virtual violence fosters aggressive behaviour, it is clearly just one among many factors, as discussed above. For this reason, it becomes extremely difficult to conduct longitudinal studies due to the multitude of intervening experiences. Longitudinal studies also tend to suffer from high dropout rates, which undermines the initial randomization. Thus, there are few if any published longitudinal studies that isolate video game effects on aggression (cf. Anderson et al., 2007, p. 33ff) so experiments on the effects of virtual violence focus almost exclusively on short-term effects. There is also some research that supports the intuitively plausible supposition that emotions primarily determine *short-term* effects, whereas *long-term* effects are more influenced by rational deliberation (cf. Anderson, 2004).

4. **Measurement problems**: For practical and ethical reasons, the effects of virtual violence cannot be experimentally measured by monitoring subjects engaging in actual violence. Instead, many researchers have tried to find alternative means of measuring increased aggression. One of the most common laboratory measures of aggression is to let the subject administer "a noxious blast of white noise" (Anderson & Dill, 2000, p. 776) to another person. These measurements have been widely criticized as too artificial to draw any general conclusions (see e.g. Kutner & Olson, 2008).[2] Closely related, measurements of aggression have not been widely standardized, making it difficult to perform meta-analyses.

5. **Aggression vs. excitement**: There is little doubt that video games, even those without any virtual violence, can create a high degree of excitement in the player. Thus, it can be difficult to decide whether the measured behaviour (e.g. higher noise blasts) is due to increased level of excitement or increased level of aggression.

6. **Ethical problems**: The ethical problem mentioned above does not only give rise to measurement problems, but in a catch-22 manner, the experiments would seem to be unethical if the hypotheses are verified. That is, if there really is a risk that being exposed to virtual violence leads to dramatic changes in behaviour, then it might be questioned whether these experiments can be ethically justified in the first place.

It is not my purpose to argue that experiments dealing with the effects of virtual violence are necessarily flawed. Indeed, Craig Anderson has done much to show that these methodological problems can be overcome.[3] Rather, the source of many of the intervening variables that raise doubt about the validity of these experiments lies in the individuals' capacity for rational deliberation. That is, accounts stating *that* virtual violence leads to immoral emotional dispositions rarely take into account our ability to reason about our emotions. The experiments methodologically presuppose to varying degrees the emotivist premise that "reason is … the slave of the passions, and can never pretend to any other office than to serve and obey them" (Hume,

---

[2] There have been studies that, in turn, try to correlate the administration of noise blasts with aggressive behaviour (see e.g. Anderson & Bushman, 1997), but these studies appear to inherit many of the same methodological problems.

[3] See especially Anderson et al (2007). See also Anderson (2003) [retrieved January 2009, from http://www.apa.org/science/psa/sb-anderson.html], which contains a concise overview and further references.

1739/2008, p. 297). It seems reasonable to assume that behaviour and moral judgments stem from a combination of emotional dispositions and rational deliberation – and few researchers would argue that emotions constitute the *whole* story. Thus, it is the *relative* importance of the two that distinguishes rationalist from emotivist accounts. Although admittedly speculative, it also seems reasonable to assume that we are more likely to engage in rational deliberation when our intuitions are not immediately applicable to the case at hand, or if our intuitions are conflicting; that we are more likely to react intuitively and without proper deliberation when the case at hand closely resembles familiar experiences. If this is the case, the puzzling and often bizarre nature of many experiences in virtual worlds should make them particularly suited to fostering rational deliberation.

CASUISTICS AS DESCRIPTIVE MODEL OF MORAL JUDGMENT

One reason why it is difficult to propose descriptive, rationalist accounts of the formation of moral judgment is that there is no one way in which all people reason. Thus, I will choose one method of reasoning and try to show how *that* kind of reasoning is affected by different experiences. For the sake of the argument, I will use as a starting point the premise that one influential way of reasoning about moral problems is sound case-based reasoning – or what is sometimes known as casuistics. Thus, I will use casuistics as a *descriptive* model, i.e. a model that aims to *describe*, rather than prescribe, the formation of moral judgments. Some will argue that a descriptive casuistic model, especially one that builds on sound principles for case-based reasoning, is overly optimistic and presents an idealized version of moral judgment not found in most persons. Although this is probably true in many cases, my claim does not entail that all people form moral judgments in this manner. The condition is merely that we *can* deliberate in such a manner and that *some* people do, *some* of the time.[4] If this is the case, it is worth considering how moral judgments might be altered by a process of informed reasoning over new experiences and paradigmatic cases.

'Casuistics' is a generic term that covers different forms of case-based reasoning. Central to casuistics is the use of paradigmatic cases as a starting point. In short, a morally problematic case is compared to morally unproblematic cases, and the ethically relevant similarities are analyzed in order to figure out whether the judgment of the paradigmatic case is valid also for the problematic case. To use abortion as an example, the moral justification of such an act can be analyzed in terms of its similarities with cases in which most reasonable persons would agree that killing a living being is justifiable and cases in which it is not. By weighing the relevant similarities and differences against each other, we can come to a more informed decision regarding the ethical justification of abortion.

The advantage of casuistics is its ability to take a range of situational factors into consideration, thereby avoiding the rigidity of universal principles. Since the paradigmatic case should ideally be agreed upon from the perspective of any ethical theory, as well as different ideological and religious backgrounds, it can also be seen as a promising means of reaching agreement across cultural, political and religious divides. As long as we agree upon the paradigmatic case and the principles for sound case-based reasoning, the discussion can focus on ethically relevant properties rather than abstract ethical theories or more or less non-rational worldviews. One of its main problems is that it can be difficult to find paradigmatic cases – cases upon which most reasonable persons are likely to agree. After all, reasonable persons disagree on a

---

[4] Incidentally, Jonsen and Toulmin mention that the reason for attempting to revive casuistry in their seminal *The Abuse of Casuistry* (1988) was because they realized that they were already thinking in casuistic terms; They 'were independently struck by aspects of [their previous] methods and results that were hard to account for in terms of current ethical theory' (1988, p. vii). It should also be mentioned that casuistics occupy a central role in computer ethics, as reflected in the oft-cited definition of computer ethics by James Moor: 'A typical problem in computer ethics arises because there is a policy vacuum about how computer technology should be used' (Moor, 1985, p. 266) – the policy vacuum being due to difficulty finding paradigmatic cases.

number of things. Another problem is to discern which properties are (most) ethically relevant and to what degree these properties are shared by the problematic case at hand.

Furthermore, there are two main forms of casuistry, case-to-case and case-norm-case.[5] In case-to-case reasoning, we choose one or more paradigmatic cases with which the case at hand is compared. In case-norm-case reasoning, moral norms are established on the basis of an inductive inference from paradigmatic cases, and the application of these norms is done on the basis of deduction from the general norm to the case at hand. 'Inference' and 'deduction' is not to be taken in a strict logical sense, but rather in accordance to the various principles for sound reasoning (see below). In this sense, the case-norm-case approach has much in common with John Rawls' reflective equilibrium (Rawls, 1999) where cases and norms are reflected upon and revised in light of each other. Although the case-to-case and case-norm-case models have much in common, the main difference is that the use of norms as an intermediary can foster the method of reflective equilibrium and requires coherency between a larger set of cases than in case-to-case reasoning.

What the different forms of casuistry have in common, at least as a normative model, is a set of rules and principles for how to extend moral judgment between cases and/or norms. The overarching principle is what is sometimes known as the *principle of formal equality*, which can be formulated as follows: Cases that are relevantly similar should be treated (or judged) in a similar manner; a differential treatment requires a relevant difference (cf. Thommessen & Wetlesen, 2003, p. 242). The relevant difference in question is a difference in the set of ethically relevant properties. Thus, sound case-based reasoning entails: 1) find paradigmatic cases with which the case at hand can be compared, 2) discern the ethically relevant properties in the paradigmatic case, and 3) analyze whether these properties can be found in the problematic case at hand to a sufficient degree. If we take animal ethics, for instance, we can argue as follows: 1) All reasonable persons agree that it is *prima facie* wrong to willingly inflict pain on another human being, 2) the ethically relevant property in the paradigmatic case is sentience, i.e. the ability to feel pain,[6] and 3) we have good reasons to believe that a horse is capable of feeling pain (due to having a similar central nervous system and pain-like behaviour). Hence, sentience is a sufficient, if not necessary, condition for extending our moral judgment from the paradigmatic case (humans) to the case at hand (horses). In other words, there is not an ethically relevant difference between humans and horses when it comes to inflicting pain.[7] In reaching this conclusion, we can then form or revise our moral norms in light of that judgment. For instance, the resulting norm would be that, *prima facie*, it is morally wrong to cause pain to *any* being that is likely to be sentient. Judgment regarding other problematic cases can then lead us to further revise and refine that moral norm, for instance by reflecting on cases such as embryos, animals with no central nervous systems, humans with Congenital Insensitivity to Pain Syndrome and so forth.

Perhaps the most central aspect of casuistry, and what separates sound casuistry from its abuse, is the requirement that we cannot reach any conclusion we want simply by focusing on the properties that are conducive to the conclusion we wish to reach. I believe this can be emphasized by relating casuistry more closely to discourse ethics, and require it to be twice intersubjective. That is, we take cases upon which most reasonable persons would agree as a starting point, and our arguments concerning the ethically relevant similarities between this case and the case at hand

---

[5] We can also add norm-to-case as a third form of casuistry, although this model strictly speaking amounts to a mere deduction from principles, and should perhaps be seen as a descriptive model of what happens when paradigmatic, moral norms are taken to be a priori and dogmatic (cf. Thommessen & Wetlesen, 2003, p. 247).

[6] Sentience is Peter Singer's criterion in arguing that animals should be ascribed a similar moral status as that of humans (Singer, 1990).

[7] This similarity entails that it is *prima facie* wrong to inflict pain on horses, but it does not prevent us from having a hierarchy in which this is less wrong than inflicting pain on a human being. See Wetlesen (1999) and Søraker (2007) for two theories of moral status in which beings are ascribed different degrees of moral status in light of their relevant similarities with moral persons.

must make sense to any reasonable person – beyond non-rational beliefs.[8] Thus, the starting point and ultimate guiding principle ought to be agreement among reasonable and well-informed persons. In the words of Habermas, "practical discourse is not a procedure for generating justified norms but a procedure for testing the validity of norms that are being proposed and hypothetically considered for adoption" (Habermas, 1990, p. 103). This also restricts the ethically relevant properties to empirical and theoretical notions, excluding arguments that cannot be subjected to discursive testing in this manner.

As can be seen from the examples above, casuistry is not a direct route to certainty, but at the very least, it allows us to focus on the important questions, and it provides a common platform for discussion. As a descriptive model of how we might deliberate about our moral norms, it can help us understand how we might come to change our moral norms and corresponding behaviour in light of being confronted with new experiences. I will now turn to how certain virtual experiences might, through a process of casuistic deliberation, change our moral norms. I will focus on the controversial notion of 'virtual rape' and its possible impact on moral norms regarding rape in general.[9]

WHAT IS A 'VIRTUAL RAPE'?
In a much-debated paper originally published in 1993, Julian Dibbell describes what is commonly referred to as the first virtual rape. The event is difficult to comprehend unless one is familiar with different kinds of virtual worlds. Dibbell describes his initial reaction to the phenomenon:

> I was still the rankest of newbies then … still too unsteady to make the leaps of faith, logic, and empathy required to meet the spectacle on its own terms. I was fascinated by the concept of virtual rape, but I couldn't quite take it seriously. (Dibbell, 2007, p. 21)

But, when Dibbell describes the personas and the events that happened in a virtual world called *LambdaMoo* one night, it soon becomes clear that the differences and, albeit weak, similarities between a virtual and a real rape cuts to the very essence of what it is – *and might become* – to immerse oneself in virtual worlds. As Dibbell later notes, "Where before I'd found it hard to take virtual rape seriously, I now was finding it difficult to remember how I could ever not have taken it seriously" (Dibbell, 2007, p. 27).

The main details are roughly as follows. In a virtual world, the inhabitants are represented by avatars, i.e. graphical representations through which the participants act, speak and portray more or less consistent identities.[10] A virtual rape entails that someone takes control over your avatar, the representation of you in a virtual world, and forces your avatar to engage in acts that you never would consent to. In particular, this includes extreme forms of self-mutilation and perverse sexual activities. The avatar, which you normally use to channel speech and actions according to how you wish to present yourself, is forced into doing these activities while you and all bystanders witness the events helplessly. Importantly, the bystanders have no way of knowing – and little reason to assume – that the offensive behaviour is not controlled by the same user as before.

---

[8] Please note that by non-rational I mean beliefs that cannot be verified by or grounded in empirical data. Non-rationality, in contrast with irrationality, is not necessarily inconsistent with reason. Thus, although I see religious beliefs and various forms of superstition as non-rational in this sense, this does not entail that they are *irrational* or necessarily that they ought to be excluded from our value systems. Such beliefs cannot, however, provide the basis for sound, case-based reasoning; History has taught us that mere beliefs about differences between classes can have disastrous effects and, indeed, is the reason why casuistry fell into disrepute in the first place.

[9] There have been a number of other philosophical studies of virtual experiences that, implicitly or explicitly, employ a casuistic approach. See e.g. Morgan Luck (2009) for a very interesting, casuistic analysis of virtual murder and virtual paedophilia.

[10] In Dibbell's case, the virtual world was purely text-based and the avatars were only nicknames with short descriptions, but similar events have been known to happen in graphical virtual worlds as well – even cases that have been reported as such to the police (cf. http://www.wired.com/culture/lifestyle/commentary/sexdrive/2007/05/sexdrive_0504, Retrieved January 3, 2009).

To someone unfamiliar with virtual worlds and presenting yourself through an avatar, this might seem like a trivial affair. The problem is that the way in which users relate to their avatars differ enormously, ranging from casual detachment to a complete blurring of oneself and one's representation. In order to understand how such actions can be interpreted as equivalent to rape, keep in mind that some individuals dedicate the majority of their social life to online role playing, that they have invested many years in creating a consistent, trustworthy and virtuous character in order to overcome the lack of physical presence, and that all of those efforts can be annihilated by one single instance of having one's avatar commit the unspeakable acts in question. Keep also in mind that these forced acts are witnessed by your closest friends and that there is often no way in which to submit proof that you were in fact under the control of someone else.[11] Your name is damaged for always, trust and friendships dissolve, feelings of shame, humiliation and lost autonomy ensue.

Describing the events as a 'rape' seemed to be an attempt to find some real life concept that could give meaning to why the main victims and the spectators found themselves shocked and overwhelmed by their own reactions. The use of the concept was not the result of one person's over-reaction. Even the bystanders who had never before experienced virtual rape "immediately appreciated its gravity and were moved to condemnation of the perp" (Dibbell, 2007, p. 17). 'Virtual rape' was already, and still is, commonly invoked to describe these kinds of events. The main victim of the Dibbell case, in real life a "theory-savvy doctoral candidate" (Dibbell, 2007, p. 17) described that as she was trying to make sense of what had happened "she was surprised to find herself in tears – a real-life fact that should suffice to prove that the words' emotional content was no mere fiction" (Dibbell, 2007, p. 16). Still, given the apparent differences between actual and virtual rape, can our moral judgment of the virtual rape in any way be informed by paradigmatic judgments of actual rape?

'VIRTUAL RAPE' AS SEEN FROM A RATIONALIST, CASUISTIC ACCOUNT

One of the reasons for choosing 'rape' as an example is that any rational being would intuitively and forcefully condemn a clear case of rape as ethically wrong. At the same time, opinions differ widely on the notion of 'virtual rape'. Hence, this is a typical casuistic challenge where it is difficult to understand whether our judgment of the paradigmatic case is relevant to the problematic case at hand. One of the main reasons for this problem is that it is notoriously difficult to discern exactly what it is that makes something a rape – what the ethically relevant properties are. If we do not consider the mindset and consent of the parties involved, there is in some cases no way in which to ascertain whether it is a rape or not. This is of course the reason why rape, unfortunately, is one of the most difficult cases to prove in court. Most kinds of physical acts *can* be consensual and desired. Likewise, experiencing something as a rape is not sufficient or necessary for calling it a rape. How we experience something is highly subjective and can be altered by drugs or past experiences. For instance, if someone does not recollect having been raped, this does not entail that a rape did not take place. In other words, the problem with defining rape stems from the fact that 'it is *in part* mind-dependent and *ontologically* subjective.

Given the sensitivity of the subject matter, it is important to be precise about what this entails. John Searle (1995) has argued that there is a world of difference between epistemological and ontological subjectivity, and that the latter often entail epistemologically objective facts. For instance, the fact that particular pieces of paper count as legal tender in a given country cannot be wholly described in terms of physical properties alone; it is *in part* determined by the beliefs held by a number of people. In other words, it is an ontologically subjective fact, but this does not entail that it is a matter of mere subjective preference. The fact that pieces of paper of a particular layout count as legal tender in the context of the United States is *ontologically* subjective but

---

[11] Although many find it tempting to point out that living the majority of your life online and having only online friends is unhealthy in itself, a view that itself rests on a number of controversial assumptions, this does not remove, neither should it devalue, the emotional distress caused by such events.

epistemologically *objective;* if you disagree you are quite simply mistaken. Thus, we have a range of different kinds of facts ranging from those that are ontologically and epistemologically objective (e.g. that there is gravitational force between the moon and the earth), those that are ontologically subjective yet epistemologically objective (e.g. that the piece of paper in my hand counts as legal tender), and those that are ontologically *and* epistemologically subjective (e.g. that I find Munch to be my favourite painter). Thus, although rape is not ontologically objective in the same manner that gravitational force is, it is certainly not epistemologically subjective in the same manner as my taste in paintings. Still, part of the meaning of rape is ontologically subjective, or mind-dependent. This does in no way detract from its seriousness, quite the contrary, but it is what makes it more difficult to define than murder and other crimes.[12]

The fact that 'rape' is to some degree ontologically subjective allows us to better understand how it can be applied to events in virtual worlds. As argued by Philip Brey (2003), some entities that are socially constructed in the manner outlined above can be *ontologically reproduced* in virtual worlds. For instance, no particular physical properties are needed for something to be money; sea shells, paper, metal discs, and electronically stored digits have all been recognized as money and, in many cases, can be traded against each other without loss of value. The same lack of physical requirements can be found in other 'institutional entities', to use Searle's phrase, such as the game of chess, contracts, institutions and elections. All of these can, and have been, ontologically reproduced in virtual worlds because the lack of physical properties in virtual worlds is not a hindrance to their reproduction. Entities that do require particular physical properties, such as trees, mountains and cars, cannot be ontologically *reproduced* but at best *simulated* in virtual worlds. Finally, there are a number of entities that do not *require* particular physical properties for their existence, but where particular physical properties are regarded by many as *important* to their value or disvalue. For instance, there are numerous churches in virtual worlds and 'church' is an ontologically subjective construct, illustrated by the fact that physical churches come in countless different sizes and shapes. Still, many would argue that a church cannot be wholly reproduced in a virtual world, because the physical properties of a physical church (say, a medieval cathedral with monumental stained glass windows and spandrels) is important to the experience – what Borgmann (1999) refers to as the "commanding presence" of actual reality. What about rape? Are particular physical events, or states of affairs, *necessary* for something to be a rape, and consequently ontologically non-reproducible in virtual worlds? In particular, are violations of the physical body necessary for something to be judged as a rape?

In case-norm-case casuistics, this is where we encounter a reflective equilibrium between the case at hand and our moral norms. If we hold that 'virtual rape' is not a form of rape, we (indirectly) hold that some kind of bodily violation (or some other condition that cannot be met in virtual worlds) is a necessary requirement for judging something to be a rape. If we do hold that 'virtual rape' really is a minor form of rape, we indirectly assume that bodily violation is *not* a necessary requirement for judging something to be a rape. Furthermore, if we are to act consistently and revise our moral norms in accordance with sound principles for case-based reasoning, we would need to revise our moral norms regarding rape so as to either exclude or include instances of non-virtual rape where no bodily violation takes place. We are then left with either a more exclusive or inclusive notion of rape that *carries over into real life judgments.* In other words, this would be a form of case-norm-case reasoning in which the virtual *case* might prompt a revision to our *norms*, which in turn might change our judgment of cases in the physical world – and this is how virtual cases might change our reasoning about actual cases. The conclusion might be the same as an emotivist account, but the explanations are radically different. Consider:

Possible emotivist explanations: If our moral norm regarding rape becomes more *inclusive* due to experiencing virtual rape, this is due to being made more emotionally aware of rape-like acts. If our moral norm regarding rape becomes more *exclusive*, this is due to a desensitisation of our

---

[12] See MacKinnon (2006) for a more detailed analysis and social history of 'rape' and its relevance to 'virtual rape'.

emotions regarding rape-like acts.

Possible rationalist, casuistic explanations: If our moral norm regarding rape becomes more *inclusive*, this is due to rationally recognizing that bodily violation is not a necessary requirement for something to be a rape. If our moral norm regarding rape becomes more *exclusive*, this is due to rationally recognizing that bodily violation *is* necessary for something to be a rape.[13]

It is not my concern to prescribe which conclusion we ought to reach. The main lesson is that the two accounts lead to radically different questions and explanations. On an emotivist account, the question is: in what way are your emotions regarding rape altered by experiencing virtual rape? On a rationalist, casuistic account, the question becomes, for instance: do you regard bodily violation as a necessary requirement for something to be a rape? The former, especially if we regard emotion as an instinctive source of moral judgments, can primarily be measured through observation of behaviour. Can we measure these changes on the basis of a rationalist account? It should be possible to design experiments on the basis of a rationalist account as well, where deliberation on a particular topic is measured in subjects that have and have not been subjected to different kinds of virtual experiences. For instance, Stromer-Galley has developed a coding scheme for describing the process and content of deliberation (Stromer-Galley, 2007). Such experiments can also be set up inside the virtual world itself. Thus, research carried out from a rationalist perspective could help us gain a more holistic and nuanced understanding of the effects of virtual violence – not only its effect on our emotions but also on our deliberation, not only on children but on rational adults as well. Furthermore, it could give important insights into *how* virtual violence in different forms ought to be portrayed and contextualized in order to prompt rational deliberation that could counter changes to our emotional dispositions.

It is important to emphasize that even if virtual violence might foster deliberation, this is not in itself a justification of excessive virtual violence. In particular, some games portray nothing but disrespectful and perverted views of humanity – such as the controversial game *Rapelay* where the only objective is to engage in acts of virtual rape and other forms of male domination. There is also little doubt that children are more likely to suffer negative effects from virtual violence, precisely because they will often lack the ability to rationally deliberate over their experiences. Thus, I also agree that there should be content rating systems to classify games into age-related groups. However, on the presupposition that virtual violence is unlikely to be purged from games and virtual worlds targeted at adolescents and adults, my hope is that increased focus on rational deliberation could be used to urge virtual world and video game developers to frame virtual violence in a manner that fosters deliberation. In purely pragmatic terms,[14] it is more likely that developers will adopt the idea of adding compelling storylines to their games than that they will rid their products of virtual violence. Virtual violence probably sells more games, but adding elements that foster deliberation can make the games both better and more profitable – as evidenced by the fact that most game classics and best sellers, although sometimes violent, do employ intricate plots and intellectually challenging scenarios.[15] If it is the case that we are more likely to engage in rational deliberation when confronted with experiences where our pre-formed intuitions cannot be readily applied, where our intuitions conflict in interesting ways, or when we have particularly strong reactions to certain characters and events,[16] then a better understanding of these factors

---

[13] See MacKinnon (2006) for an interesting discussion of how the notion of virtual rape might change our rational deliberation regarding rape in general.

[14] See Søraker (2006) for a general defence of the use of 'pragmatic arguments' when principled arguments are unlikely to gain support.

[15] To take but a few examples, the *Sims*, *Grand Theft Auto* and *Final Fantasy* series are among the best selling games of all time, and they are all intellectually challenging and employ intriguing plots.

[16] As one of the anonymous referees made me aware, there is a related and potentially useful discussion in philosophy of literature concerning the so-called "paradox of emotional response to fiction". The paradox stems from the fact that we often have strong emotional and rational reactions to certain fictional characters and events despite the fact that they are

could be one way of countering negative effects on our emotional dispositions – one way of fostering resilience to the risks demonstrated by emotivist psychological research.

CONCLUDING REMARKS

The rationalist, casuistic account of the effects of virtual violence allows us to ask a different set of questions than emotivist accounts. Rather than asking how our moral *emotions* are changed, the question becomes how our moral *reasoning* changes. That is, personal experiences and paradigmatic cases are seen as providing new factors to take into consideration when deliberating over our moral norms. Although I have focussed on 'virtual rape' and only given a rough overview of how such a model can be applied, I believe that more research should be done on how these questions can be answered within rationalist frameworks. Such models underline that there is no deterministic relation between virtual violence and aggressive, immoral behaviour – and that our moral judgments can be altered by other means than emotional distress, trauma, desensitisation and the like. This does not in any way entail that psychological experiments carried out on the basis of emotivist assumptions have no value, but that more effort should be put into devising experiments that take rational deliberation into account as well – even if this means that the results cannot be quantified. It also entails that researchers should not exclusively focus on the effects on children, but consider how virtual violence might affect rational, consenting adults as well. Finally, and the most important plea in this paper, this calls for more interdisciplinary research in which psychologists, philosophers, neuroscientists, sociologists, computer scientists, statisticians, game developers and other researchers more actively collaborate towards a more nuanced debate.

ACKNOWLEDGMENTS

REFERENCES

Anderson, C. A. (2003). Violent Video Games: Myths, Facts and Unanswered Questions. *Psychological Science Agenda, 16*(5).

Anderson, C. A., & Bushman, B. J. (1997). External validity of "trivial" experiments: The case of laboratory aggression. *Journal of Personality and Social Psychology, 78*(4), 772-790.

Anderson, C. A., & Dill, K. E. (2000). Video Games and Aggressive Thoughts, Feelings, and Behavior in the Laboratory and in Life. *Journal of Personality and Social Psychology, 78*(4), 772-790.

Anderson, C. A., Gentile, D. A., & Buckley, K. E. (2007). *Violent Video Game Effects on Children and Adolescents: Theory, Research and Public Policy*. New York: Oxford University Press.

Anderson, E. C. (2004). Moral Cognition: A Dual-Process Model of Moral Judgments [Electronic Version]. Retrieved January 9, 2009, from http://www.hampshire.edu/upl/fpg_89_3252_1108478855.pdf

Borgmann, A. (1999). *Holding On to Reality: The Nature of Information at the Turn of the Millennium*. Chicago, IL: University Of Chicago Press.

Brey, P. (2003). The Social Ontology of Virtual Environments. *American Journal of Economics and Sociology, 62*(1), 269-282.

Dibbell, J. (2007). My Tine Life: Crime and Passion in a Virtual World. Retrieved January 1, 2007, from http://www.lulu.com/content/1070691

---

not real. The proposed solutions to this paradox could be instructive for a better understanding of the kinds of virtual characters and events that foster appropriate deliberation (see e.g. Walton (1990)).

Habermas, J. (1990). Discourse Ethics: Notes on a Program of Philosophical Justification (C. Lenhardt & S. W. Nicholsen, Trans.). In *Moral Consciousness and Communicative Action*. Cambridga, MA: MIT Press.

Haidt, J. (2001). The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment. *Psychological Review, 108*(4), 814-834.

Hume, D. (1739/2008). *A Treatise of Human Nature*. Sioux Falls, SD: NuVision.

Jonsen, A. R., & Toulmin, S. (1988). *The abuse of casuistry: A history of moral reasoning*. Berkeley: University of California Press.

Killen, M., & Smetana, J. G. (Eds.). (2005). *Handbook of moral development*. Mahwah, NJ: Lawrence Erlbaum.

Kutner, L., & Olson, C. (2008). *Grand Theft Childhood*. New York: Simon & Schuster.

Luck, M. (2009). The gamer's dilemma: An analysis of the arguments for the moral distinction between virtual murder and virtual paedophilia. *Ethics and Information Technology, Forthcoming*.

MacKinnon, R. (2006). Virtual Rape. *Journal of Computer-Mediated Communication, 2*(4).

Moor, J. (1985). What is Computer Ethics? In T. W. Bynum (Ed.), *Computer and Ethics*. Oxford: Blackwell.

Rawls, J. (1999). *A Theory of Justice* (Rev. ed.). Oxford: Oxford University Press.

Searle, J. (1995). *The construction of social reality*. New York: Free Press.

Singer, P. (1990). *Animal Liberation* (2nd ed.). London: Thorsons.

Søraker, J. H. (2006). The role of pragmatic arguments in computer ethics. *Ethics and Information Technology, 8*(3), 121-130.

Søraker, J. H. (2007). The Moral Status of Information and Information Technologies – a relational theory of moral status. In S. Hongladarom & C. Ess (Eds.), *Information Technology Ethics: Cultural Perspectives* (pp. 1-19). Hershey, PA: Idea Group Publishing.

Stromer-Galley, J. (2007). Measuring Deliberation's Content: A Coding Scheme. *Journal of Public Deliberation, 3*(1), 1-35.

Thommessen, B., & Wetlesen, J. (2003). *Etisk tenkning*. Oslo: Gyldendal.

Walton, K. L. (1990). *Mimesis as make-believe*. Cambridge, MA: Harvard University Press.

Wetlesen, J. (1999). The Moral Status of Beings who are not Persons: A Casuistic Argument. *Environmental Values, 8*, 287-323.