This volume compiles papers from the Young Academics Workshop at the Clash of Realities conferences of 2017 and 2018. The 2017 workshop – *Perceiving Video Games* – explored the video game medium by focusing on perception and meaning-making processes. The 2018 workshop – *Reframing the Violence and Video Games Debate* – transcended misleading claims that link video games and violent behavior by offering a range of fresh topical perspectives. From BA students to postdoctoral researchers, the young academics of this anthology stem from a spectrum of backgrounds, including game studies, game design, and phenomenology. This volume also features an entry by renowned psychologist Christopher J. Ferguson.

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Preface

GUNDOLF S. FREYERMUTH

“Civilization is but a thin blanket,” Auschwitz survivor Ella Lingens once remarked.¹ The blanket of human knowledge seems even thinner; though today we at least have a growing awareness of how little we now know. Macrohistory teaches us that the cognitive revolution through which we acquired language dates back roughly 50-70,000 years; the invention of writing systems some 3,500 years; the scientific revolution barely 500 years. These few recent centuries in which humanity established modern culture—particularly the academic way of thinking, rigorous scholarship, and the scientific method—look, in the words of Yuval Noah Harari, like “the blink of an eye compared to the tens of thousands of years during which our ancestors hunted and gathered.”²

Games, or at least playfulness, are known to reach back to these distant beginnings of human civilization and beyond, as several higher animal species have long been at play.³ Nevertheless, we know very little about games, particularly their latest incarnation. The scholarly investigation of digital games began—under the label of Game Studies—less than a quarter of a century ago. Establishing a new academic discipline has been compared to exploring un-

known territory. When the Clash of Realities Conference was first held in 2006, the lack of games knowledge manifested itself in both the Academy and the general public as a sweeping mistrust of—and even an outright hostility toward—this new medium, which was mischaracterized as inherently violent and highly seductive to a targeted group: the youth.

Considering these circumstances, it seems all the more astonishing that the conference did not create a space dedicated to the promotion of young researchers. Nothing changed in this respect in 2015, when the Cologne Game Lab (CGL) became the guiding hand of the conference and reframed it as the Clash of Realities—International Conference on the Art, Technology and Theory of Digital Games. We—my colleague Björn Bartholdy and I—decided to respond to the growing enthusiasm around digital games by boosting the frequency of the once biannual conference; the Clash became a yearly event. We also broadened the once singular focus on media pedagogy to include approaches from the humanities and transmedia research, while also advancing a strong artistic emphasis. However, we did not take that extra step of offering a specific forum for young researchers. It took the initiative of young academics themselves to remedy this regrettable shortcoming.

For the 8th Clash of Realities, which took place in November 2017, two CGL research assistants, Federico Alvarez Igarzábal and Curtis L. Maughan, along with Michael S. Debus of the IT University of Copenhagen, came up with the idea of a “Young Academics Workshop.” They developed a convincing concept characterized by diversity of both perspectives and participants—an initiative which Björn and I were happy to support. Starting with the first workshop (which I had the pleasure to attend) and ever since, the organizers have succeeded in bringing together a wide variety of both scholarly and artistic research. Side by side with game developers, young academics from a dozen disciplines have discussed digital games in a variety of contexts, from literature and film studies, to art history and game design theory, to theatre and performance studies, as well as pedagogy and cognitive science, among others. At each workshop, a large student audience filled the entire lecture hall to the last row. The young audience’s free, open, and active participation distinguished itself from their engagement in other summits of the conference, where senior academics set the tone.

Through the Clash of Realities conference, the Cologne Game Lab, which Björn and I founded in 2010, has gained international visibility as an educational institution and games research hub. The Young Academics Workshop was an essential puzzle piece missing from the conference. One of the many benefits of the workshop is its broad appeal to potential participants. In addition to the nu-
merous international guests, CGL’s own students of all levels—from Ph.D. candidates to particularly talented Bachelor’s students—get the exciting opportunity to present their research in front of a diverse audience and to publish their findings in the pages of this book, which for some will be their first academic publication.

Knowledge, its influence and its fate, has always depended on being passed down through the generations. Presently, such transmission seems especially tenuous. Even the relatively small sum of knowledge that we have thus far accumulated is in constant danger from social and political forces that fear we have already gone too far down the path leading to enlightenment. Knowledge is power; it has the potential to bring about great change. But like all power, it also frightens; both those in charge who should know better and those whom our modern societies have kept in the dark. The present shift in political culture puts not only basic values of liberal democracy at stake but also our hard-won “scientific mindset.”

Given the global resurgence of anti-Enlightenment forces, significant challenges await the scholars of today and tomorrow. In the field of games research, the Young Academics Workshop actively faces these challenges, pursuing new paradigms in the search for—and the sharing of—knowledge.

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Introduction
Establishing the Young Academics Workshop

FEDERICO ALVAREZ IGARZÁBAL, MICHAEL S. DEBUS, & CURTIS L. MAUGHAN

The present volume compiles papers presented at the Young Academics Workshop (YAW) at the Clash of Realities (COR) conferences of 2017 and 2018. For years, the COR—an internationally recognized conference—invited prominent academics and game developers to the Cologne Game Lab in order to share their unique perspectives on the subject of digital games. Prior to 2017, however, the COR lacked a space in which exclusively young scholars—BA and MA students, PhD candidates, and postdocs—could present and discuss their research.

In 2017, we—the workshop organizers—set out to address this gap by hosting The Young Academics Workshop at the COR. We also wanted to provide an environment where participants could gather (first) experiences in a conference setting without the pressure of presenting alongside seasoned scholars and industry professionals. To add extra value to the proceedings, we would invite an accomplished guest scholar or professional to the workshop, someone who could bring their knowledge and experience to the table in an advisory role.

It should be noted that we too are young academics. When we founded the YAW, we were all PhD candidates and today we are either in the postdoctoral phase or transitioning into it. Therefore, it has never been our goal to counsel participants as their seniors but to learn with and from them. With all of this in mind, we decided that the focus of the discussion would not only be placed on content, but also on form; exchanging advice on how to best communicate the results of one’s research in addition to a deep discussion of the research proper.

Furthermore, we strove to foster an interdisciplinary exchange by inviting researchers from all areas of academia. Though the title of the workshop addresses “Young Academics,” we expressly encouraged game development students and
young developers to share their research as well. In line with the spirit of the COR, research was broadly understood as scholarship and praxis, academic as well as creative.

The topics of the first two workshops, the presentations of which are featured in these pages, were “Violence and Video Games: Reframing the Debate” (2018) and “Perceiving Video Games” (2017).

The 2018 workshop established alternative perspectives on the still controversial topic of violence and video games. Specifically, we sought to elevate the discussion beyond the well-worn discourse that games with violent content, such as Mortal Kombat, are responsible for eliciting violent behavior—a spurious claim lacking the support of legitimate scientific research. In light of this, we encouraged participants to submit presentations that reframed this discussion in novel and productive ways. Instrumental in achieving this goal, Christopher J. Ferguson joined the proceedings as our distinguished guest speaker. Professor Ferguson’s work as a social psychologist and science communicator is a testament to the dire need to bring high academic standards and intellectual rigor to the debate concerning violence and video games. His text in this anthology provides an excellent summary of the research on this controversial topic, as well as the shortcomings of his own field, which were exploited to stoke the fire of moral panic around video games that continues to burn even to this day.

Frank Fetzer’s contribution applies phenomenology and Latourian theory to examine the dynamic between the player and the game, specifically representations of guns as an extension of the gameworld. Natali Panic-Cidic argues that violence in the United States of America is, first and foremost, a social problem that can be illuminated by the study of video games as they relate to human emotions. Christian Roth applies a model of ludonarrative meaning-making to explore the moral implications of a particular sequence of violence from A Way Out. Anh-Thu Nguyen criticizes the imprecision of the term violence in the context of video games, while exploring the concepts of voyeurism and affect as tools for a more nuanced examination of the relationship between video games and the player. Cornelia Janina Schnaars discusses the spectacle of murder in The Evil Within 2, placing special emphasis on aestheticized depictions of violence. Borrowing from Turner’s work on ceremonies and rituals, Rüdiger Brandis and Alex Boccia develop new terminology for discussing—and designing—sequences of combat and violence in video games. Finally, Derek Price explores the complex matrix of environmental violence in video games, which often overlook the consequences of such harm as well as the means of resistance.

The 2017 YAW benefitted from the presence of Cologne Game Lab co-founder and co-director, Gundolf S. Freyermuth, who also serves on the board of
the COR. As a guest moderator, Professor Freyermuth demonstrated how to constructively critique and collaborate in a conference setting, while imparting years of academic and professional expertise to the attendees of the workshop. He also authored the preface of this volume and played an integral role in the realization of this publication.

The 2017 workshop aimed to explore different aspects of perception, from lower-level sensory processes to higher-level meaning-making, all in the context of (digital) games. We were aware the topic of perception would include a wide array of research areas, from phenomenology to aesthetics to emotional engagement. The expansive reach of this topic, however, resonated with the COR goal to bridge the gap between industry and academia. In this light, our broadly-scoped workshop allowed us to set truly impressive precedents both in terms of its interdisciplinarity and diversity. Indeed, our 2017 workshop was globally inclusive and featured academics as well as game designers and artists.

In his contribution, Frank Fetzer explores the video game as a bodily experience, relying on the notion of the cyborg to conceptualize the player-avatar relationship. Nicolay Mohammad-Hadi examines how the audiovisual layer of video games affects player perception through the lens of Load Theory and the psychological notions of sensation, perception, and cognition. Natali Panic-Cidic explores the emotional bond created between the player and the characters in The Last of Us through Blending Theory. Leonie Wolf reviews the state of the research on treating depression with video games and offers potential pathways forward for this burgeoning discipline. Alberto Alvarez and Miruna Vozaru present their study on the design and programming of AI agents with a focus on behavioral believability. Cornelia Janina Schnaars examines how technological developments have impacted the evolution of the survival horror genre. Shunsuke Mukae analyzes the survival horror genre as well, coming from the perspective of Deleuzian masochism in relation to film. Finally, Ágnes Bakk draws parallels between video games and Das Heuvolk, an immersive theater play by the SIGMA company, investigating the audience’s experience of agency and immersion.

This anthology is a testament to the dream the YAW team has had right from the start: to offer a diverse array of participants the opportunity to share their research in a setting that fosters intellectual and professional growth. Correspondingly, this book granted participants the chance—for some, the first chance—to present their work in an academic publication, along with all the labor that such a process entails. By publishing the proceedings of both YAW 2017 and 2018 together, we strive to bring about more of the interdisciplinary connections and intellectual constellations that emerged from the interpersonal
dynamics of both workshops. On that note, we would like to acknowledge the crucial role played by the YAW audience, whose number and level of active participation greatly exceeded our expectations. And we hope that this book forms a new audience, one that matches the intellectual curiosity and discoursal civility that characterized the exchanges between workshop participants and audience members at the 2017 and 2018 Young Academics Workshops.

We are deeply grateful to the entire network of people who made this publication and the 2017-2018 workshops possible. First and foremost, we would like to thank the team at the Cologne Game Lab—the venue of the workshop—for all of their help. We are especially grateful for the ongoing support we have received from Gundolf S. Freyermuth and Björn Bartholdy, co-directors of CGL and board members of COR. We would also like to thank the COR board, as well as the conference organizing team: Judith Ruzicka-Grote, Judith Neumann, Katharina Klimek, Alexandra Hühner, Tobias Lemme, Sebastian Felzmann, Su-Jin Song, Rüdiger Brandis, and the CGL “Events” Student Work Group. As intellectual diversity is a primary goal of our workshop, we are grateful for the transinstitutional support from the Center for Computer Games Research of The IT University of Copenhagen. We are also grateful for the support from the sponsors of the Clash of Realities conference, in particular the TH Köln—University of Applied Sciences (Cologne, Germany).

And certainly we would also like to thank all of our workshop participants and contributors for their impressive efforts: Frank Fetzer, Ágnes Bakk, Shunsuke Mukae, Cornelia Janina Schnaars, Alberto Alvarez, Miruna Vozaru, Thiago Gatti, Thomas Constant, Diego Saldívar, Nicolay Mohammad-Hadi, Natali Panic-Cidic, Hanns Christian Schmidt, Leonie Wolf, Ahn-Thu Nguyen, Alex Boccia, Rüdiger Brandis, Carman Ng, Anja Wodzinski, Derek Price, Christian Roth, and Christopher Ferguson. We are inspired by the relevance and significance of your contributions, the intellectual rigor of your research, and the dedication you have brought to the completion of this volume, which we see as a continuation of an already robust relationship that will stretch far into the future.

The Young Academics Workshop will continue in the fall of 2019, the 10th anniversary of the Clash of Realities, with an edition on “Play, Games, Mental Health.” This year we are happy to welcome a new member to the organizing committee: game scholar and producer Su-Jin Song. With her input, we look forward to further innovations in research and global collaboration, as well as the many new directions the Young Academics Workshop will pursue in the years to come.
Real Violence Versus Imaginary Guns
Why Reframing the Debate on Video Game Violence is Necessary

CHRISTOPHER J. FERGUSON

The debate on whether video game violence does or does not have an influence on players remains a heated one in the general public and among scholars. Naturally, we see one influence the other. For instance, after the 2018 Parkland shooting in the United States, President Trump initially invoked video games as a cause. Some Republican politicians and Trump administration officials invoked statements by the American Psychological Association linking video games to aggression, although his administration later backed down from such claims after official hearings during which evidence was prevented.¹ Many of the misunderstandings regarding the current nature and strength of video game violence research come from the difficulty in distinguishing violence from aggression. At the same time, scholars may inadvertently miscommunicate or fail to recognize the weaknesses within aggression research, eliciting/generating more confidence about the research on violent video games in the general public than is warranted from current data. At this juncture, the weaknesses of aggression research are well known. Current controversies now focus on the use and misuse of meta-analysis, the related issue of psychology’s “crud factor,” and the misuse of near-zero effect sizes. In this essay, I will briefly summarize the evidence for effects of games on violence (which society cares about). I will then spend more time focusing on the effects of games on prank-level aggression (which society argu-

ably does not care about), including “crud factor” results, misuse of meta-
analysis, and “death by press release.” I will conclude by observing that psycho-
logical science has gradually reduced the standard of evidence for the link be-
tween games and aggression over the course of 20 years, arguably in a defensive 
reaction to preserve the ostensible value of psychological science itself.

THE EVIDENCE REGARDING VIOLENT CRIME

Space constraints preclude an exhaustive summary of this data, but several pools 
of evidence highlight an increasingly clear lack of evidence for an impact of 
violent games on societal violence, ranging from mild bullying behaviors all the 
way to mass shootings. This evidence comes from several sources, none of them 
perfect, but all pointing in the same direction. These include:

Inverse Correlation Between Violent Video Game Sales and Violence. Most of the data in this realm comes from the US, where the inverse relationship 
between violent video game sales and significant reductions in youth violence, 
homicides, and other outcomes is clear and has been known for some time.² 
Such correlational data must be interpreted with caution, given the potential for 
ecological fallacies. However, other data does suggest that the release of very 
popular violent games is associated with immediate declines in crime.³

Little Evidence that Mass Homicide Perpetrators Consume High 
Amounts of Violent Media Including Games. This particular pool of evidence 
dates as far back as 2002 with a US Secret Service report that noted that school 
shooters tend to consume less rather than more violent media than the amount 
expected for males of their age group.⁴

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² Ferguson, Christopher J: “Does Media Violence Predict Societal Violence? It De-
E1–E22.

³ Markey, Patrick M./Markey, Charlotte/French, Juliana: “Violent Video Games and 
Real-World Violence: Rhetoric versus Data,” in: Psychology of Popular Media Cul-
The Relationship Between Video Games and Crime,” in: Social Science and Public 
Policy, In Press.

⁴ United States Secret Service and Department of Education: “The Final Report and 
Findings of the Safe School Initiative: Implications for the Prevention of School At-
Cross-National Comparisons Find High Game-Consuming Countries are Low Violent Crime Countries. The first analyses along these lines came from the Washington Post following the 2012 Sandy Hook shooting, but a recent update with Patrick Markey confirmed these conclusions. Essentially, high game-consuming countries such as Japan, South Korea, and the Netherlands are among the least violent on the planet.

All the above data are societal in nature. Intriguingly, the psychological research field has seldom engaged with this societal-level data and, for the most part, ignores its existence. Unfortunately, this creates a situation in which the psychological science remains largely divorced from the real world. To the extent that psychological research may disagree with the real world (although that itself is a matter of interpretation, as I will show in a moment), scholars may often come across as implying that the real world is less important than what happens in psychological laboratories.

THE EVIDENCE FROM PSYCHOLOGICAL STUDIES

Psychological studies can be either experimental or correlational/longitudinal. We’ll consider each in turn.

Experimental Studies. Experimental studies of violent video game effects typically take individuals (often, though not always college students) and randomize them to play violent or non-violent games in an artificial, laboratory setting. So long as the games are equal on all levels other than violence, this provides an argument for causal effects. Because it would be unethical or even illegal to cause individuals to behave violently, the aggression measures are, by nature, prank-level aggression—such as giving someone hot sauce when they do not like spicy food or putting someone’s hand in a bucket of ice water. Such measures can certainly be interesting, though likely tell us little about violent crime. Nevertheless, this pool of studies has been known to suffer from a number of flaws.

Publication Bias. First, it is now well-understood that experimental studies of video games and aggression suffer from publication bias and, when such bias

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5 Markey, Patrick M/Ferguson, Christopher J: Moral Combat: Why the War on Violent Video Games is Wrong, Dallas, TX: BenBella Books 2017.
is controlled for, effects drop pretty close to zero.⁶ Further, more recent preregistered studies⁷ of violent game effects have returned non-significant findings.⁸ Thus, despite some claims to the contrary, it is not clear that experimental studies of violent game effects have provided evidence for causal effects.

**Poor Matching of Video Game Conditions.** For about a decade, it has been understood that a common confound of video game experiments has been a failure to match video games carefully on factors other than violent content.⁹ Other factors such as game difficulty, frustration, and competition may differ systematically between mainly violent and non-violent games, introducing critical confounds.

**Use of Unstandardized Aggression Measures.** Unstandardized aggression measures allow for researchers to pick and choose outcomes that fit their hypotheses while ignoring those that do not. It has been demonstrated that such unstandardized aggression measures result in upwardly biased effect size estimates.¹⁰

**Demand Characteristics.** In many designs, the close pairing of the game condition with measures of aggressiveness makes the study hypotheses obvious. Under such conditions, participants may be able to guess the study hypotheses and change their behavior accordingly.

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⁷ i.e. Those in which the analysis plan and hypotheses are published in advance of data collection to reduce questionable researcher practices.


Correlational/Longitudinal Designs

Correlational and Longitudinal designs do not control video game exposure, thus limiting causal attributions, but do allow for the assessment of more serious aggression or violent behavior. However, they too are known to experience a number of critical issues.

**Failure to Adequately Control for Relevant Variables in Longitudinal and Correlational Studies.** Many studies fail to control for important variables that may explain links between violent games and aggressiveness, ranging from gender to trait aggression to genetics. Studies that control for such variables suggest that actual socialization effects for violent games (or other media) are minimal.\(^{11}\)

**Unstandardized Self-Report Measures.** As with experimental studies, many correlational and longitudinal studies use poorly-designed self-report measures. This problem is compounded by their self-report nature. Most studies do not include checks for unreliable or mischievous responding, both of which can cause spurious correlations.

**Demand Characteristics.** As with experimental studies, the close pairing of questions about video games with measures of aggression or violence (or worse still, asking participants to rate the violent content of the games they play) create significant demand characteristics and potential spurious positive results.

**Researcher Expectancy Effects.** One curious effect that has been observed is the presence of researcher expectancy effects. In particular, it has been observed that studies that employ citation bias (citing only studies favorable to the authors’ personal views) tend to have higher effect sizes than those with more balanced literature reviews.\(^{12}\) As with experimental studies, preregistration can help remove some researcher expectancy effects. Thus far, preregistered correlational studies, as with experimental studies, have not been encouraging of violent game effects\(^{13}\)—aside from one study with college students.\(^{14}\)

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13 Przybylski, A./Weinstein, N.: “Violent video game engagement is not associated with adolescents’ aggressive behaviour: evidence from a registered report,” in: *Royal Soci-
To conclude this section on research from psychological studies, the data from nearly four decades worth of research is, on balance, not impressive for violent game effects. Nonetheless, it remains common to find a few scholars defending the potential for effects. These defenses are undoubtedly in good faith, but include critical errors in thought. Namely, these include the misuse of meta-analysis, as well as declining standards of evidence wherein ever smaller, close-to-zero “crud factor” effect sizes are considered “evidence” for effects, despite many reasons to suspect that such tiny effect sizes do not represent population level effects. It is to these issues I now turn.

**On The Misuse of Meta-Analyses**

It has become something of an unfortunate tradition in the social sciences that, when individual research studies disagree regarding support for a hypothesis, meta-analyses are summoned as a djinni to fix the problem via a magical wish. Unfortunately, meta-analyses only function well in this regard when considering a homogeneous pool of randomized controlled trials. For messy social science studies with unstandardized measures, poor control condition contrasts, researcher expectancy effects, and the like, we can be certain that the pooled average effect size is *not* a remotely precise measure of a population effect size. Put simply, meta-analyses can tell us which foibles of research methodology are associated with higher or lower effects, but they cannot tell us what the *true* effects are. Nonetheless, many scholars persist in such a belief.

As an example, the American Psychological Association relied on meta-analysis in its technical report on video game violence. From a field that, during the time frame considered, likely included 60-70 empirical studies, the APA included only 18. Puzzlingly, 5 of these contained no data relevant to the question of whether violent games cause aggression, lacking either aggression

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measures or contrasts between violent and non-violent games. Thus, it is unclear how the APA task force extracted effect sizes from these studies. But the task force’s failure to consider the impact of the methodological issues discussed earlier, as well as their overreliance on spuriously high bivariate effects from correlational and longitudinal studies, result in pooled effect size estimates that assuredly bear little resemblance to population level effects.

At least for video game violence, and likely for many other research fields as well, it is likely time to abandon the belief that meta-analyses are debate enders, or that the pooled mean effect size is meaningful. Such pooled mean effect sizes, capitalizing on elevated power, are almost always “statistically significant,” (which is to say they cross an arbitrary line that suggests results aren’t due only to random chance in the selection of samples from a population) causing scholars to have overconfidence in the strength of evidence for effects, despite weak effect sizes (more on this in a moment). This is not to say meta-analyses are without value: as indicated above, they can actually be quite informative in understanding why effect sizes are elevated in some studies and lowered in others. But they seldom tell us what the true population effect size is.

**Psychology’s Crud Factor**

The concept of “crud” factor was described by psychologist Paul Meehl to refer to the observation that almost everything correlates just a little bit with almost everything else, but that these tiny correlations should not be interpreted as meaningful.16 Unfortunately, as sample sizes increase (normally a good thing), these tiny effect sizes can pop out as “statistically significant” even though they are crud. This is an easy issue for scholars to lose sight of, considering that many are inherently excited (or biased) to find “statistically significant” results and loathe to embrace the null. This crud factor can cause scholars to make bad decisions regarding the interpretation of crud-level findings as meaningful.

Orben and Przybylski recently demonstrated this with statistically significant (but trivial) relationships between screen use and mental health. The authors compared these to statistically significant effects of similar magnitude for obviously irrelevant factors such as eating potatoes or wearing eyeglasses on mental health. If the magnitude of screen use is similar to potatoes on mental health,

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such correlations should clearly be dismissed as nonsense even if “statistically significant.”17

Most meta-analyses of video game effects find effect sizes in the range of $r = .04$ to .08, particularly for longitudinal studies.18 But what are we to make of effect sizes in such a range even when “statistically significant”? Such effect sizes are no different in magnitude than the effect of potatoes on suicide. Thus, is the overinterpretation of such effect sizes and indication of the crud factor or what we might also call the “suicide potato effect”?

The naïve interpretation of such effects is demonstrated by one recent meta-analysis by Prescott and colleagues.19 The meta-analysis found a best-controlled effect size estimate of $r = .078$ for longitudinal studies of video game violence. But is such an effect a reasonable indication of population effect sizes or consistency between studies as the authors claimed? It seems doubtful this is the case. First, given that such an effect size is near zero, it would best be interpreted that most studies find an effect size that is little different from zero. Second, this effect size is based on self-report surveys, many of which suffered from the methodological limitations indicated above. As such, there are good reasons to conclude that even this effect size is upwardly biased. Third, taken at face value, this effect size indicates that the ability of knowing a person’s video game habits when predicting their aggression is 0.61% shared variance, essentially only 0.61% better than a coin toss. Fourth, at least two of the effect sizes calculated from my own studies in the Prescott meta-analysis appear to be upwardly biased miscalculations, thus raising the possibility that even this effect size estimate is too high. On balance, the Prescott meta-analysis is better evidence against violent video game effects than for it. Only a decision to ignore the crud factor leads one to suggest otherwise.

19 Ibid.
Relying on such miniscule effect sizes to support a hypothesis is a statistical grasping at straws. Over time, the standards of evidence for this field considered sufficient for scholars to claim that evidence supports effects has gradually diminished. Just over a decade ago, scholars assured us that the effects were similar in magnitude to smoking and lung cancer with perhaps 10-30% of the variance on aggression and violence attributable to video game and other media violence.\(^\text{20}\) Now, without the slightest hint of embarrassment, our field is reduced to arguing whether 0.61% shared variance is enough to ring the clarion bells of alarm in the general public. If this is all our field has to show for itself, it is time to pack it in or settle for being “that nasty little subject”\(^\text{21}\) William James once repudiated psychology for being.

**Concluding Thoughts**

Considering all of the above, I argue that it is time to reframe the debate away from the notion of the effects games have on people—a line of research that has seldom borne fruit. Rather, it may be helpful to understand the interactions between games and players, their motivations for playing action-oriented games, and how such game play can be understood in the context of a greater milieu of a given individual’s life. In essence, I argue for an abandonment of the entire moral enterprise of blaming games, violent or otherwise, for negative outcomes and, instead, treating them more or less like any other hobby or, alternatively, cultural experience. I note this also means that we ought to be cautious in exaggerating positive as much as the negative impacts. But I think that removing games research from negative effects and, quite frankly, cultural criticism, would be beneficial to the objectivity of games research.

To this end, I found reasons for optimism among the other sessions at the Young Academics Workshop. Many of these sessions demonstrated the potential for a sophisticated inquiry into games and player experiences that eschewed the easy moralization of the “blame games” movement. I think a fundamental aspect of this optimism came from a degree of respect shown to gamers themselves and gamer culture. Too often, gamer culture appears to be an easy target for stigmatization, whether through the earlier paradigm of social psychologists or more

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recently through cultural criticism. Divorcing the science of games from moral posturing is essential to an objective science of game effects or game culture.

As some excellent examples of the research being done, here were some of the things discussed as the Young Academics Workshop. Derek Price discussed how violence is represented in games outside the United States. Less focus on the violent game debate has allowed for a greater interest in other issues such as economic deprivation or social strife. Frank Fetzer discussed how avatars act as moral shields between the player and their behavior in games. This line of research may help us to understand the gulf between what people do in games and what they don’t do in real life. Along this thread Christian Roth examined how moral disengagement allows players to take on roles in games they would not take on in real life. Natali Panic-Cidic examined how violence in games can take on meaning that allows players to explore cognitive and emotional boundaries. Exploring violence in games can actually help us to understand empathy and compassion in real life. Cornelia Janina Schnaars explored the aesthetics of violence in games and how violence itself can be rendered unto art as is often done in other media. Rüdiger Brandis and Alexander Boccia examined how ceremony and ritual in violent games are used to give meaning to the player experience. Taken together, all of these papers take seriously the perspective of game play from the player’s experience, something that has been fundamentally lacking in most of the social science research.

After four decades of research, it is likely time to admit that we have not amassed an evidence base that justifies warning the public about harmful effects of violent video games. I suspect that the reluctance among some to let it go stems from dedicating a life’s work to a topic that, in the end, may have been a false path. Or perhaps a defensiveness of psychology itself and a hope to see magic in the wonder of statistics however small and subjective they may be. Worse, we seem to have learned very little about the lack of value in “statistical significance” and are repudiating any worth in the concept of effect size by defending any effect size that is not zero and manages to achieve “statistical significance” in large samples, including meta-analyses. There are, to be sure, some positive movements such as preregistration and an increasing awareness that tiny effect sizes may not matter after all. But until a greater intellectually honest culture takes root in our science, it will continue chasing its tail as a nasty little subject.
LITERATURE


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**ONLINE RESOURCES**


Avatars Don’t Kill People, Players Do!
Actor-Network-Theory, Mediation, and Violence
in Avatar-Based Videogames

FRANK FETZER

In this chapter, I will apply Bruno Latour’s actor-network-theory to address how the avatar co-shapes the player’s program of action, especially concerning violent acts. The avatar functions primarily as instrument that mediates how the player perceives and acts in the game world. Nonetheless, this instrument often has strong narrative aspects, which make it difficult to grasp as a tool alone. The lines between instrument and protagonist are blurred, making the nature of the avatar-character ambiguous. Because these aspects are intertwined, both form the player’s being-in-the gameworld. Therefore, I cannot discuss the instrumental side of the avatar and ignore the narrative aspect. In this light, I will begin by focusing on the instrumental nature of the avatar, then I will move to its story component.

Because of the ambiguous character of the avatar as tool or object on the one hand and protagonist or subject on the other, the work of Bruno Latour provides a perfect starting point. One of the main characteristics of his work is his attempt to overcome the subject-object dichotomy that is prevalent in contemporary philosophy. Latour claims that it is not just the human subject that shapes the way actions unfold, but that things or technologies are equally important—at least when we enter the realm of engineers and craftsmen where no unmediated

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action is possible. As French philosopher Bernard Stiegler has argued, this is an essential part of the human condition, which is even truer regarding video games.

To foreground the symmetry between human beings and objects, Latour introduces the term “actant,” which is used equally to describe human agents and non-humans or instruments. For Latour, reality cannot be understood if humans and non-humans are treated “asymmetrically.” The two are always bound up with each other in a network of relations. Only these relations make them what they are. Therefore, the two basic concepts of Latour’s theory are “actors” and “networks.” His universe consists of actors that are related to each other and interact via networks. Agency, he claims, cannot be restricted to human beings.

In his essay “On technical mediation,” Latour contrasts the well-known claims of gun-control advocates (“Guns kill people”) with the NRA’s stance (“People kill people, not guns”) to reflect on the role of technical mediation. He asks: “What does the gun add to the shooting?” Regarding the gun-control position, Latour claims that “the gun acts by virtue of material components irreducible to the social qualities of the gunman.” He calls this the materialistic position: it is based on the view that the carrier is changed by the affordances of the gun.

For the NRA, on the other hand, the gun does nothing in itself: “it is a tool, a medium, a neutral carrier of will.” This is what Latour calls the sociological position, which is based on the view that the gunman is the one that acts while the gun plays a neutral role.

But neither the materialistic nor the sociological position are right. It would be absurd to attribute the action of shooting someone to the gunman alone. Equally absurd would it be to think of the gun as solely responsible for the act. Don Ihde, a philosopher of technology, has also dealt with the NRA slogan and arrives at a similar conclusion:

5 Cf. ibid., p. 35.
6 Ibid., p. 31.
7 Ibid.
8 Ibid.
“The gun of the bumper sticker clearly, by itself, does nothing; but in a relativistic account where the primitive unit is the human-technology relation, it becomes immediately obvious that the relation of human-gun (a human with a gun) to another object or another human is very different from the human without a gun. The human-gun relation transforms the situation from any similar situation of a human without a gun.”

While researching that bumper sticker I came across another one that stated: “Guns don’t kill people, they just make it easier” which sums up Ihde’s claim quite nicely, I believe. The absurdity of those positions which ignore the part technology or technological artifacts play in human relations is emphasized by Latour here: “The bizarre idea that society might be made up of human relations is a mirror image of the other no less bizarre idea that techniques might be made up of nonhuman relations.”

**The Four Meanings of Technical Mediation**

Technology and the connection between instruments and human beings play an important part in shaping actions. But how can this technical mediation be understood more precisely?

Latour identifies four meanings of technical mediation: translation, composition, reversible blackboxing, and delegation. I will focus here mostly on translation, composition, and delegation. These three meanings seem to be most relevant in analyzing how technical mediation takes shape and how the responsibility for actions is distributed in the special case of the avatar.

When technology or an instrument is part of an action, it translates the program of action. Regarding the example of the gun-man, we can assume that a person (actant 1) is angry and wants to take revenge. The person is probably not strong enough to follow through with her intention, and so the program of action is blocked. However, this person can take on a relation with a gun (actant 2). The gun mediates the program of action of actant 1, via its own program: “shooting.” Note how Latour does not differentiate between human and object. The program of action of both actants is transformed or translated into a new one. Both actants

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are transformed in the relation to one another. A new actant comes about (actant 1+actant 2) with a new translated program: the killing of a person.\footnote{Cf. B. Latour: “On Technical Mediation,” p. 32.}

Mediation always involves several actants that jointly perform an action. Responsibility for that action, therefore, is spread out over the ensemble of parts. Latour calls this complexity of agency composition. By composition, he means that action “is simply not a property of humans but of an association of actants.”\footnote{Ibid., p. 35.} It is not the person that shoots, but person + gun.

Mediation consists not only of the programs of action but simultaneously of the links between actants. Mediation, therefore, seems to be not a matter of persons and objects, but a matter of hybrids. These hybrids arise in the form of complexes of human and technology.\footnote{Cf. Verbeek, Peter-Paul: What Things Do: Philosophical Reflections on Technology, Agency, and Design, University Park, PA: Penn State Press, 2005, p. 156.} Latour further introduces the terms “substitution and association” or “replacement and linkage.”\footnote{Cf. B. Latour: “Where Are the Missing Masses?” p. 171.} Association is the dimension in which the forming of compositions is localized; substitution is the dimension of the translation of possible programs for action. Each mediation takes part within these two dimensions.

Latour illustrates these dimensions with the bulky key ring that hotel managers often attach to room keys, meant to remind hotel guests to return them when they check out.\footnote{Ibid., p. 175.} The role of the bulky key ring can be understood in terms of the mediation of programs of action. The hotel manager’s program of action is: make the guests return their keys upon departure. This program of action might conflict with that of the guests, who are not necessarily inclined to return their keys. Latour describes some of the options the manager has to counter the “anti-program” of the guests. In the first situation, the manager merely wishes that the hotel guest might return the key. That program of action does not conflict with the anti-program of the guests, but is also not very successful. In the second situation, the manager adds an oral message to counter the guests’ “anti-program” —which is, arguably, already a technological mediation. In the third and fourth situation, she forges a connection with another entity. She hangs up a sign and attaches a large, heavy object to the key. With each of these steps, the manager broadens her network in order to realize her program of action. At the same time these associations transform the behavior of the hotel guests.

The third meaning of mediation is reversible blackboxing. Briefly put, blackboxing is a process that makes the joint production of actors and artifacts
entirely opaque. We become aware of an instrument’s existence and of the role it plays in the network of relations when it breaks down—Latour uses the example of an overhead projector failing during a lecture. To analyze mediation, we have to open the box deliberately and look into the parts the network consists of.  

Latour calls the fourth meaning of technical mediation “delegation,” and considers it the most important of the four. A popular example is the speed bump on a university campus, which translates a driver’s goal from “slow down so as not to endanger students” into “slow down in order to protect your car’s suspension.” The driver then adapts her behavior due to the mediation of the speed bump. Humans have “inscribed” the program of action they desire (to make drivers slow down on campus) in concrete. Inscribing a program of action in a lump of concrete delegates the task of a traffic sign or a policeman to the speed bump. “Delegation,” Peter-Paul Verbeek observes, “makes possible a curious combination of presence and absence: an absent agent can have an effect on human behavior in the here and now.”  

Another example to illustrate the process of inscription is that of a doorspring: Humans delegate to the door-spring the task of shutting the door after somebody opened it; they inscribe the program of action “close the door if it is open” in the spring. The door-spring in turn invites a particular kind of use (e.g. walk quickly through, do not swing the door too hard).  

Technologies co-shape the use that is made of them; they define actors and relations between actors, and share responsibilities and competencies between humans and things. Latour calls the behavior that a non-human delegate imposes on humans a “prescription.” He indicates such “built-in” prescriptions as the script of a technology. Consequently, a script is the program of actions or behavior invited by an artifact. The designer of an artifact works with an inscribed user in mind to whom she prescribes properties and behavior. This does not mean that the user acts exactly in the way the designer intended. They can refuse to use the artifact, or use it in a novel and unexpected way. But, by using it, they have to subscribe to the inscriptions.

These four meanings of mediation are closely intertwined. In the case of the speed bump, this interrelation can be formulated like this: The president of the  

17 Cf. ibid., p. 36.  
18 Ibid., p. 38.  
20 Ibid., p. 160.  
university campus where the speed bump has been installed associates herself with a lump of concrete (composition), assigning to it what is necessary to realize her goal (delegation). The resulting speed bump does not need the president to fulfill its task (blackboxing) because its physical properties allow it to change a driver’s program of action from “drive slowly to be responsible” to “drive slowly to protect my shock absorbers” (translation). Translation, composition, reverse-blackboxing and delegation each describe a different aspect of technical mediation.\textsuperscript{22}

**TECHNICAL MEDIATION AND THE AVATAR**

Now I will try to apply those four meanings of mediation to the avatar. In light of Latour’s theory, what can we say about the ways the avatar mediates action?

In entering the virtual world of the video game, the player enters a realm of engineers and craftsmen where no unmediated action is possible. Therefore, the player necessarily has to connect with technology to experience the game world. Teaming up with an avatar translates the player’s program of action to a great extent. Being able to act within the game world is a much bigger step than being able to shoot somebody. Now the player can shoot somebody in a virtual world.

Here, a new actant emerges (Player+Avatar) who is able to do things that none of the elements of that network would be capable of alone. Mediation always involves several actants that jointly perform an action. The responsibility for that action, therefore, is spread out over the ensemble of parts. It is not the person that shoots, but person+gun. Mediation consists not only of the programs of action but also and simultaneously of the linkage of actants.

Here, I want to make a brief detour: Henrik Nielsen describes his experience of playing *Call of Duty* 4, and claims that while playing as a soldier he is somehow shielded from the actions, being positioned in the gunship let him experience the war with his own eyes:

> “Up until that point (playing COD4), the conventionalized ‘being’ and ‘not-being there’ of the first-person perspective had worked as a buffer, separating me from the actions in the game – giving me status as a quasi-I. But when positioned in the gunship, the alterity of the perspective disappeared and left me with my own eyes to experience the war.”\textsuperscript{23}

\textsuperscript{22} Cf. ibid.

This experience is based on the narrative existence of the avatar. It has a life of its own. While playing as another subject, the player can pretend that the actions are not completely her own. But from the perspective of the instrument there is no difference between piloting an avatar or piloting a vehicle. For this matter, the fourth means of mediation, delegation, is the most useful of the four. The relation of player and avatar is loaded with delegations and prescriptions for action.

I skipped the third meaning of mediation, “reversible blackboxing,” but for analyzing the connections between avatar and player we have to open the blackbox and look into their relation. The avatar, just like the game as whole, is a designed object. Therefore, it is similar to the speed bump, albeit more complex. The difference is that a program of action is inscribed into the avatar. The designer of an artifact works with an inscribed user in mind, who might not do as the designer has intended. In contrast to the material artifact that only invites a certain behavior, the video game demands it. The player subjects herself to the rules. The game is designed with, as Espen Aarseth calls it, an “implied player” in mind. While it is entirely possible to use a gun as a hammer in the physical world, to behave differently from the intended behavior in a video game demands more effort. This is what Aarseth refers to as the “transgressive player,” a player who makes use of bugs and does unexpected things to rebel against the tyranny of the game and to preserve a sense of selfhood in a completely rule-based environment.

The idea of symmetry between human actors and things is an important perspective in the field of human-technology relations. Consequently, so is the idea that responsibility for action is spread across the complete network of humans and non-humans. Still, we have to examine it very carefully: In most of Latour’s examples we find an asymmetrical treatment of humans and nonhumans: house owners delegate the task of closing the door to the door spring; hotel managers transfer the task of making sure that guests return their keys to the bulky keyring; and engineers and university officials transfer the task of getting drivers to slow down to the speed bump. Can Latour really claim that all actants are equally responsible when we find a human being at both ends of the chain? I think not. Therefore, responsibility for violence in video games can only be taken by the humans on both sides of the game.

25 Cf. ibid.
26 Cf. ibid., p. 185.
The program of action a gun provides, (i.e. the program of action it is scripted with) differs from the program of action of a virtual gun. The virtual gun is a second order technological artifact. It cannot be isolated from the game world, as opposed to a real gun, which is a technological artifact in its own right. Thus, the artifact we need to address here first is the video game as such. The gun that provides the player with certain options is part of the game world through the will of the designers and it certainly provides the player with some lethal options within the game world. To claim that those options are the player’s to decide would be wrong. The game world was designed in a certain way and the affordances of that game world are reflected in the gun. The designers seem to follow a maxim attributed to Chekhov: “If in the first act you have hung a pistol on the wall, then in the following act it should be fired. Otherwise don’t put it there.”27 In other words: the player is provided with a gun, so the problems of the game world are designed to be solved with a gun. Of course, in some games (mostly role-playing games) the player has other options, as exemplified by the vegan runs in The Legend of Zelda: Breath of the Wild.28,29 However, what Diane Carr has observed here is still correct:

“This kind of replay does not represent real options in terms of interactive intervention in narrative outcome: as a player, I can do, undo and redo until Lara has effectively performed the challenge presented to her by the game, but I can only proceed through the game, through the space itself, if I perform the task as the game demands. […] Driving Lara means occupying a place shaped and then vacated by her designers.”30

Looking into the relations between gun and gun-man in the material world might be an overwhelming experience. Here, there are many aspects to consider, including the gunman’s personal history, education, and character, as well as the position her social environment takes on the matter of gun-use. In video games the matter is simpler. As the game is a technological artifact in itself, we can hold the creators of that game world responsible for designing situations in a

28 The Legend of Zelda: Breath of the Wild, (Nintendo 2017, O: Nintendo)
way that they can only be solved through violent acts. Equally responsible is the player for placing herself in those situations. The avatar and the virtual gun are scripted to invite certain actions, but so is the game as such. Where would we start to differentiate between the two? Gameworld and avatar are two sides of the same coin. The avatar is part of the gameworld and the gameworld is designed in a way that situations can be solved with the limited skills of the avatar. Because the avatar forms a part of greater artifact, the video game, to hold it responsible for violent acts would be absurd.

**Literature**


LUDOGRAPHY