

Amusement and Beyond -Challenges and New Directions for the Philosophy of Humor

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Abstract of Thesis

Humor and amusement are important parts of human life. In spite of their great relevance, they have been neglected in philosophy. One goal of this thesis is to advance philosophy of humor and ultimately to contribute to a better understanding of these phenomena. The thesis consists of an introductory chapter, five research chapters (with seven research papers), and a concluding chapter. While the first four chapters are concerned with particular issues and problems of humor research, chapter five connects humor research with other issues in philosophy.

The introductory chapter outlines the general plan of the thesis and introduces background for the individual papers of the chapters.

In the first paper of chapter one, I argue based on phenomenology and perceptual content that the notion of 'perception of incongruity', which is prevalent in the literature, should be retired. In the second paper of chapter one, I critically examine a specific account in which incongruity theory, and to a lesser extent superiority and relief theory, have been used to show why flatulence is funny.

In chapter two, I investigate a particular idea stemming from incongruity theory. Several authors have proposed that the so-called *formal* object of amusement is 'incongruity' or 'the incongruous'. Based on ideas of what the formal object of emotions most plausibly is, I will show that this view may not be tenable. Drawing on the widely accepted idea that the formal objects of emotions are evaluative properties, I argue that *incongruity* is not an evaluative property and therefore not the formal object of amusement.

In chapter three, I deal with the connection of humor and amusement to morality. Specifically, I focus on what is called *comic immoralism*, which is the claim that moral flaws can enhance amusement. Recently, it has been claimed that the comic immoralist must show that a humor token (e.g. a joke) can be funny *because* and not *despite* a moral flaw. I will examine this challenge and criticize two recent accounts defending comic immoralism. I will further present an account that is better suited to tackle the so-called immoralist challenge. Based on the view that amusement is a *compound* mental state, I will present an explanation of how moral flaws *causally* contribute to amusement.

In chapter four, I investigate whether our ability to be amused can be trained. I adopt the idea that training a capacity requires improving control. If we cannot

improve the control of a capacity, then we cannot train that capacity. I will show that we cannot improve the control of our capacity of amusement because of the cognitive process underlying amusement. I conclude that our capacity of amusement cannot be trained but that it may be enhanced by other means.

In the first paper of chapter five, my co-author and I ask whether scientific evidence can prompt us to revise conceptual theories of phenomena of the mind. We argue that it can — but only under the condition that they make a so-called 'ontological commitment' to something that is actually subject to empirical inquiry. In other words, scientific evidence pertaining to neuroanatomical structure or causal processes only has a refuting effect if philosophical or folk theories subscribe to either account.

In the second paper of chapter five, I attempt to make the case that there is a fruitful connection between philosophy of humor and philosophy of technology. I will pursue a twofold goal in this paper: First, I take an account from Henri Bergson, and bring out its merits for a philosophy of technology. I will show that Bergson's account of the comic gives us some interesting insights regarding our relation to technology. Second, I will show that thinking about humor and the comic also opens up a new perspective on technology and may facilitate some new ways of thinking about technological culture.

I will end the thesis with a general conclusion that summarizes the chapters and outlines some of their contributions.

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Setting the Stage

In this first section, I will give a general outline of the thesis. In particular, I will introduce the five key themes around which the thesis is organized. After that, I provide background for the papers that make up the individual chapters of this thesis. More precisely, I will outline the theoretical landscape regarding humor theories; present accounts regarding the link between humor, amusement and morality; and I will devote a section to sense of humor.

Please keep in mind that the individual papers of the chapters include introductions of their own, so I will limit this general introduction to issues that are not covered in the individual papers but are nevertheless useful for a better understanding.

Outline of the thesis - Five themes

"Humor is the quintessential manifestation of the human psyche [...]"
(Dineh 2008, 546)

Two things seem certain: Everybody loves a good laugh and humor and amusement are a crucial part of our life and culture. However, despite the importance and pervasiveness of humor and amusement they have not received a lot of attention from philosophers. In this work, I want to ameliorate this lack of interest by tackling some issues in philosophy of humor and amusement. More specifically, I will address some problems for the widely popular incongruity theory of humor. To this end, the thesis is organized around five important key themes concerning humor and amusement. The thesis is structured according to these key themes and I will proceed as follows:

(1) The first major theme concerns humor theory. Specifically, I will deal with what has come to be known as incongruity theory of humor. Incongruity theory has acquired the status of a standard theory of humor. In the first paper of chapter one, I will show that the notion of 'perception of incongruity', which is prevalent in the literature, should be laid to rest. The second paper of chapter one deals with a

particular application of incongruity theory to the case of flatulence. Specifically, the paper is a short critical examination of ideas presented by James Spiegel (2013). In his paper, Spiegel makes use of ideas from superiority theory, incongruity theory and relief theory to explain why flatulence is funny. I will point out problems of his account and show that his approach is not quite successful.

- (2) The second major theme concerns amusement as an emotion. There has been some debate whether amusement actually is an emotion. Drawing on recent accounts in the philosophy of emotions, I show that we have good reasons to believe that amusement is an emotion. Further, influenced by incongruity theory, there is a popular notion that the formal object of amusement is 'incongruity'. A formal object is the property that an emotion ascribes to its target. In the paper of chapter two I will show that this view is not tenable.
- (3) The third major theme of the thesis concerns humor and morality. More precisely, in chapter three, I attempt to defend the view that a moral flaw can positively contribute to the amusement value of a specific humor token (e.g., a joke). This view is commonly called comic immoralism. I will show what it is precisely that the comic immoralist must account for and how it can be done.
- (4) The fourth theme might loosely be called 'sense of humor'. In chapter four, I will investigate whether our ability to be amused can be trained. Based on a particular account of the cognitive mechanism that underlies the capacity of amusement (Hurley, Dennett & Adams 2011), I argue that to the extent that we cannot improve our control of this capacity, we cannot train it.
- (5) The fifth and last theme concerns the connection of humor and amusement to other fields of philosophical inquiry. Accordingly, in chapter five I will present two papers: The first paper examines the relationship between scientific evidence and conceptual theory (Co-author Joachim Lipski). The paper presents an argument to the effect that scientific evidence can only prompt a revision of philosophical or folk theories when they make a so-called ontological commitment to something that is actually subject to empirical investigation.

In the second paper of chapter five, I draw a connection between philosophy of humor and philosophy of technology. Specifically, I focus on a classic author of humor theory, Henri Bergson, and show the merits of his theorizing for philosophy of technology. I show that Bergson's account of the comic sheds light on our relation to technology. Further, I show that thinking about humor and technology might give us a fresh perspective on technological culture.

Definitions of humor and amusement

Before I proceed, I should address two key terms: 'amusement' and 'humor'. There are several definitions and characterization for 'humor' available. Dineh (2008) for example proposes that "[...] humor is any sudden episode of joy or elation associated with a new discovery that is self-rated as funny" (Dineh 2008, 547) and Roberts (2017) puts forth that "x is an instance of humour iff x would elicit humour-recognition from normal subjects in normal conditions". I take humor to be every stimulus that has been deliberately created to elicit the affective reaction of amusement (or mirth, I will use these terms interchangeably) and that elicits humor recognition. Examples are not hard to come by and include jokes and comedic performances. Of course, people are often amused by things that have not been intentionally created to do so. These stimuli, although mirth-inducing, do not count as humor according to my characterization. That is, the event of a man slipping on a banana peel, is not an instance of humor, although people may be amused by it¹.

Let me turn to 'amusement' now. As with humor, there are some more or less strict characterizations of amusement available. For example, Palencik (2007, 420) states that amusement "refers specifically to our reaction upon having perceived a particular situation to be humorous, which may or may not issue in laughter; it is our response to funny things and situations". Now, there is a distinction to be made between humor recognition and humor appreciation (see Roberts 2017). That is, we may recognize humor but that does not mean that we are amused by it. In other words, a joke can fail to amuse us although we recognize that it is the utterers intention to amuse us. As I will lay out in more detail in chapter two, we have good reasons to think that amusement is an emotion. Suffice it to say here that I take amusement (or mirth, or humor appreciation) to be an intrinsically pleasant affective mental state that we *usually* have in response to funny stimuli.

One brief remark: Palencik's characterization above makes reference to a phenomenon that is important to humor research in general but that is not featured prominently in this thesis: Laughter. Laughter is the overt expression that usually

¹ You will notice that Dineh's definition above lies square to my characterization. However, this is merely a choice of words, for I think what he is after is amusement and not humor.

accompanies amusement. However, the two should not be conflated. Just as laughter and humor are not coextensive (Attardo 2008, 120), I propose that laughter and amusement are not coextensive either. One can be amused without expressing this in laughter and one may laugh without being amused – for example, because the brain is stimulated by an electrical current (see Fried et al. 1998). In the papers of this thesis, I will be concerned with laughter only peripherally. The part of this thesis where the topic of laughter is featured most prominently is in chapter five in the paper on Bergson and philosophy of technology. For more on laughter, I would like to refer the reader to the classic treatment on laughter by Provine (2000). For the scientific investigation into laugher as well as the function and evolutionary history of laughter, Gervais & Wilson (2005) provide an excellent overview. For more recent treatments see Weems (2014) and Parvulescu (2010).

A short note on the topic's relevance

There are many reasons why engaging philosophically with humor and amusement is valuable. Here I will give three reasons. First, available empirical evidence overwhelmingly backs the claim that humor and amusement are an important part of our lives. For example, humor has been implicated in relationship satisfaction (Hall 2017). It facilitates pair bonding and helps finding a compatible mate (Bressler, Martin & Balshine et al. 2006). Humor also helps to cope with negative stimuli (Moran & Massam 1999). Further, humor reduces stress and anxiety and supports creative thinking (Lefcourt, Davidson, Prkachin, & Mills 1997; Martin 2006, 101-103). Therefore, I submit that for philosophy to fail to address amusement and humor more extensively would be an unfortunate omission.

Second, humor and amusement are universal among humans and are uniquely shared with our closest relatives in the animal kingdom (Gervais & Wilson 2005; Caron 2002). It seems fitting, then, that Aristotle characterized human beings as 'homo ridens' (the laughing man). Accordingly, for philosophy not to take humor (and related phenomena) seriously is to fail to acknowledge a uniquely human capacity.

Third, although the study of emotion is a staple of philosophy nowadays, with papers and books on emotions published almost every day, there is still a blind spot in philosophy when it comes to the emotion of amusement. Whereas philosophers have treated other emotions extensively, amusement has received short shrift so far.

After this outline of the thesis and the motivation for it, I now give a brief overview of the most influential classical humor theories. This will provide the uninitiated reader with background information for the upcoming chapters.

Brief overview of classical humor theories

Although Patricia Keith-Spiegel (1972) lists 8 categories for humor theories, it is common to cluster theories of humor and amusement in 3 categories: Superiority theory, relief theory and incongruity theory. In what follows, I will briefly introduce these three theories of humor in turn. Please keep in mind that I do not intend to give an exhaustive presentation of the three humor theories. Please also note that I will spend more space on the incongruity theory because it is currently the most influential theory of humor and features prominently in this thesis.

Superiority theory

The common core of superiority accounts of humor is the idea that a feeling of superiority is essential to both humor and comic amusement. Although Plato and Aristotle already proposed rudimentary versions of superiority accounts, the 'founding father' of this theory is Thomas Hobbes (1998). In his *Leviathan* from 1651, Hobbes claims that amusement and laughter are due to a 'sudden glory' when we realize that someone is inferior to us, which seems to be the case when we experience *Schadenfreude*. The superiority theory of humor has had many critics. Most notably, one of the earliest objections to Hobbes account comes from Francis Hutcheson (1973, originally 1725), who attacked Hobbes's notion that humor and amusement are always due to the feeling of superiority. Laugher and amusement also occur in situations where we do not feel superior to others. He also observes that we would expect that we are more amused when someone is more inferior to us. This, so Hutcheson, does not correspond with our experience. Despite his criticism, Hutcheson believes that the feeling of superiority is a contributing factor to humor, but only in a subspecies of humor that is known as ridicule.

More recently, the superiority theory has been revived by Gruner (1997), who proposes that "laughing at something that is "funny" is basically the same thing as our reaction to winning in sports and games" (p. 7). Enjoying humor, so Gruner, is

analogous to enjoying a win. According to Gruner, every instance of humor is a game that can be analyzed in terms of competition where there is always a winner and a loser. The superiority theory did not find many supporters however, mainly because it is hard to see how the feeling superiority is a *necessary* (let alone a sufficient) condition for humor. Further, textual evidence seems to suggest that even Plato, Aristotle and Hobbes did not take the feeling of superiority to be essential to humor and laughter (Lintott 2016).

Relief theory

Another influential account of humor was the psycho-physical relief theory. This theory holds that amusement is due to a release of useless psychic energy. The person commonly associated with the relief theory is Sigmund Freud. In his influential work *Der Witz und seine Beziehung zum Unbewussten*, Freud (1990, orig. 1905) proposes that laughter is a discharge of saved emotional or cognitive energy, which is no longer needed to inhibit one's urges.

Besides some intrinsic problems for Freud's particular account (see Carroll 1991), the obvious problem for the relief theory is that it is based on an untenable hydraulic account of the workings of the human mind and that it involves some nebulous talk about psychic energy. Further, if the relief theory were correct, we would expect that the enjoyment of hostile humor be positively correlated with the repression of aggressive drives. Yet, empirical research shows that this is not the case (e.g. Byrne 1956; Ullman & Lim 1962; Epstein & Smith 1956).

The relief theory was later rejuvenated by Minsky (1981), who relies on Freud's idea of the existence of cognitive censors. The sub-conscious, so Minsky's account goes, creates censors that alert us to faulty heuristics because a faulty heuristic might cause cognitive harm. However, when we elude these censors, or when no specific censors exist, we experience amusement. These censors learn and improve, which supposedly explains why a joke that is heard several times is less funny than the first time around.

Incongruity theory

By far the most influential theory of humor is the so-called incongruity theory. Proponents of the incongruity theory argue that some sort of incongruity2 is a necessary condition for humor and amusement. The two historically most influential forefathers of incongruity theory are certainly Kant and Schopenhauer, although the earliest account of humor based on incongruity comes from Gerard (1759). Kant puts forth that "laughter is an affection arising from the sudden transformation of a strained expectation into nothing" (Kant in Morreall 1987, 45) and Schopenhauer proposed that the "[...] cause of laughter in every case is simply the sudden perception of the incongruity between a concept and the real objects which have been thought through it in some relation, and the laugh itself is just an expression of this incongruity" (Schopenhauer in Morreall 1987, 52). Both Kant and Schopenhauer proposed a cognitive basis at the root of humor and amusement. It is no surprise, then, that subsequent incongruity theorists concerned themselves with the cognitive underpinnings of humor and amusement. One author who paved the way for cognitive theories of humor is certainly Arthur Koestler (1964) and his theory of bisociation. A bisociation occurs when a situation, event, or idea is perceived from the perspective of two self-consistent but usually unrelated or even incompatible frames of reference. According to Koestler, bisociation is also at the root of humor. An example here is a pun where different incompatible meanings are brought together.

Some authors have proposed that merely registering an incongruity is not enough to bring about amusement. What is needed instead, besides the detection of some incongruity, is a *resolution* of this very incongruity. Suls (1972) for example proposed a 2-stage model of humor processing. The first stage is the detection of incongruity and the second stage is the resolution of the incongruity. This process, so Suls, is similar to a problem solving process, where a cognitive rule has to be found that brings the incongruous elements together. Jokes usually comprise of a set-up and a punch line. According to the 2-stage model, first an expectation is not confirmed, which is to say that an incongruity has been detected. Then, on the second stage, the elements that do not fit together are reinterpreted to make sense. Shultz (2007, orig. 1976) presents an almost identical analysis in his cognitive-developmental analysis of

² What 'incongruous' means, however, is not always clear. Some authors use it as a synonym for terms like 'surprising' or 'unusual', which has led others to call for an abandonment of the notion of incongruity in humor research because it is not informative (e.g. Lippitt 1994). However, I will leave this matter aside for the moment.

humor. Please note that there are skeptics regarding the claim that a resolution is really necessary for amusement to occur (e.g. Forabosco 1992). There seem to be instances of humor where there is an incongruity but no resolution. The so-called nonsense humor is an example here. Other authors, like Oring (2003), believe that even in jokes the incongruity is never truly resolved. For Oring, all humor rests on "[...] the perception of an appropriate incongruity; that is, the perception of an appropriate relationship between categories that would ordinarily be regarded as incongruous" (Oring 2003, 1).

The idea that humor is due to some opposition (e.g. between categories, concepts and percepts) has also influenced the linguistic study of humor. The two most influential accounts here are the Semantic Script Theory of Humor (Raskin 1985) and the General Theory of Verbal Humor (Attardo & Raskin 1991), which develops ideas of the Semantic Script theory. The basic claim of the Semantic Script Theory is that a joke is related to 2 opposing scripts. A script, according to Raskin (1985, 81) is "[...] a large chunk of semantic information surrounding the world or evoked by it. The script is a cognitive structure internalized by the native speaker and it represents the native speaker's knowledge of a small part of the world". The joke activates two opposing scripts that are both compatible with the text of the joke. Please note that linguistic theories seem to be limited to certain types of verbal humor, that is jokes and puns.

Within the camp of incongruity theory, there is an account that has been updated in recent years and that has been used to empirically investigate humor. The theory is the so-called 'violation theory' developed by Thomas Veatch (1998). The violation theory is supposed to explain all humor and is not limited to linguistic humor. The violation theory consists of 3 conditions that are said to be necessary and jointly sufficient for amusement. The first condition, as the name of the theory suggests, is a violation of an affective commitment of how a situation is supposed to be. Second, the subject must, despite the violation, hold the view that the situation is normal. The third condition stipulates that the first two conditions hold simultaneously. Veatch's theory did not gain much traction among humor scholars until Warren and McGraw (e.g. McGraw & Warren 2010) updated it in recent years. According to their so-called 'benign violation theory', "[...] humor only occurs when something seems wrong, unsettling or threatening (i.e., a violation), but simultaneously seems okay, acceptable, or safe (i.e., benign)" (McGraw & Warner 2014, 10).

There are at least three well-known problems with incongruity theories of humor in general: First, most of them do not offer a satisfying explanation of humor and amusement but merely give a very elaborated description. Second, incongruity (or a violation, for that matter) is only a necessary but not a sufficient condition for humor, because we encounter a lot of incongruities in our daily live that are not amusing at all. Third, many authors (e.g. Latta 1999; Forabosco 2008; Warren & McGraw 2016) have pointed out that there is a problem with the notion of 'incongruity' because it is not used consistently within the literature and it also lacks the specificity to distinguish humorous from non-humorous stimuli. Despite these problems, the idea that some form of incongruity is crucial to humor has influenced a lot of empirical research in psychology (e.g. Martin 2006), in the cognitive sciences (e.g. Du et al. 2012) and investigations of the neural underpinnings of humor (e.g. Vrticka, Black & Reiss 2013). The latest installment is a quantum theory of humor (Gabora & Kitto 2017) that is also inspired by incongruity theory.

As I have admitted from the outset, limitations of space do not allow me to make due on all the intricacies of the various accounts of humor. However, I hope that this brief overview will suffice to give the reader a feeling for the field and some background for the upcoming papers. Remember, in the first paper of chapter one I argue against the notion of a 'perception of incongruity' that is popular with some incongruity theorists. I attempt to show that amusement is not the perceptual experience of incongruity and, further, that incongruities cannot be perceived. The themes of superiority and relief will come up in the second paper of chapter one. Further, the topic of incongruity is picked up again in the paper of chapter two, which deals with the claim that the so-called formal object of amusement is incongruity.

To sum up this section: The three major theory clusters, superiority theory, relief theory, and incongruity theory, all point towards important features of humor but none of these features are sufficient (Or, in the case of superiority, not even necessary). Further, each theory seems to be geared towards either a particular type of humor or particular aspects of amusement: The superiority theory seems to focus on disparaging and put-down humor, the incongruity theory provides useful resources for the investigation of the cognitive aspects of amusement, whereas elements of the relief theory can be used to account for the pleasure that we take in humor, especially humor that deals with sexual or transgressive topics.

Having introduced the major theories of humor, I am now shifting the focus to the relation between morality and humor. In the next section, I will introduce some theoretical background for the paper of chapter three that focuses on comic immoralism.

Humor and morality - When is it wrong to laugh?

The connection between humor and morality has captivated philosophers a long time now. In the Republic (Republic 388e), Socrates shows a deep distrust towards humor because laughter, so Socrates, is a threat to rational self-control. Similarly, Aristotle thought that amusement is deeply problematic because it is linked to the feeling of superiority and he even proposed that certain kinds of humor, namely derisive humor, should be outlawed (Nicomachean Ethics 4, 8). This rather negative stance towards humor still echoes in de Sousa's more recent treatment of the subject matter. In one of the chapters of his influential book The Rationality of Emotion, Ronald de Sousa (1987) argues for the endorsement thesis of humor. He claims that there is a necessary connection between finding a joke amusing and holding certain beliefs about the butt of the joke. For example, you are amused by a sexist joke only as far as you share (or endorse) a sexist attitude (de Sousa 1987, 290). In other words, being amused by a racist or a sexist joke is evidence that you (at least to some extent) hold sexist or racist beliefs3. Some years after de Sousa, La Follette and Shanks (1993) have proposed a similar idea. The similarity is striking: "A joke which belittled women, then, could only be humorous to someone who had the appropriate sort of higher-order beliefs, in particular, beliefs that women are mentally or morally inferior to men. Hence, what is disturbing about this humor is not the bare joke, but what that joke indicates about those who find the joke humorous." (La Folette & Shanks 1993, 338). Yet, despite the likeness of their view to de Sousa's ideas they make no reference to de Sousa. However,

De Sousa's position (and to the same extent LaFolette and Shanks's position) has been met with a lot of criticism. One fairly obvious response against the endorsement thesis is that it is just not true that you need to endorse some stereotype on order to

³ For a reconstruction of de Sousas's argument see Smuts (2010).

find something funny. It is enough to be aware that a certain stereotype exists (Smuts 2010, 340; Bicknell 2007; Benatar 2014), which is not the same as endorsing this very stereotype. Further, it has been pointed out, contra de Sousa, that people can entertain certain attitudes and beliefs without actually holding them (e.g. Lengbeyer 2005) and that in jokes, similar to other kinds of fictions, we can adopt the perspective of an immoral person without actually being one (Roberts 1988, 135ff.).

Not every author has a negative outlook when it comes to humor and amusement. Some authors have focused on the link between humor and the virtues. Basu (1999) for instance argues that a sense of humor in citizens is necessary for a liberal democracy because it facilitates openness and playfulness regarding (new) ideas, knowledge and other people. Further, humor can act as a social and conversational lubricant and it is a means to soften criticism, which is important for the dialogical relationship between citizens. Other authors have also stressed the positive link between humor and both intellectual as well as moral virtues4. Humor is said to foster moral virtues like tolerance, humility and courage⁵. Especially humor that is directed at oneself has been continuously linked to the advancement of virtues. Roberts (1988) for example proclaims that a "[...] sense of humor about one's own foibles is a capacity of character-transcendence; but character-transcendence is basic to the very concept of a moral virtue" (p. 127). To transcend one's own character is associated with the virtue of humility. Similarly, Mordecai Gordon (2010) argues that the ability to laugh at yourself means that you are willing to look at yourself in a different light and from the perspective of others. This, so Gordon, contributes to the development of moral virtues such as open-mindedness, honesty and patience⁶.

It is crucial here to keep in mind the distinction between the issues whether humor (or a sense of humor) contributes to the virtues and the question whether humor (or a sense of humor) is itself a distinct virtue. The aforementioned authors argue in the affirmative regarding the first question. In contrast, other authors like Lippitt (2005), while agreeing that humor is contributory to the virtues, claim that a sense of humor can itself be 'virtuous' because it contributes to self-knowledge.

I will now turn to four specific approaches regarding the relation between morality and humor. These specific approaches are the backdrop of my paper in chapter three.

⁴ For more on the intellectual and moral virtues that are facilitated by humor see Morreall (2011, 111ff.).

⁵ Despite the link between humor and the virtues, it is important to note here that there is no necessary connection between humor and virtue, like there is no necessary connection between humor and vice (Morreall 2010, 23).

⁶ See also Morreall (2010) who has a similar treatment of the self-transcending character of humor.

The approaches that I will outline in the next paragraphs inquire into the relationship between the funniness and moral flaws of a humor token. I will briefly describe each position in turn.

Comic moralism

We can distinguish between a strong and a weak version of comic moralism. I will address the strong version first. Strong comic moralism, sometimes called comic ethicism, is the position that moral flaws of humor tokens *always* count against their funniness but moral flaws do not necessarily annihilate funniness because other non-moral features of the joke may contribute to funniness. In other words, immoral features always subtract. To defend their view, comic ethicists (e.g. Gaut 1998, 61) resort to the so-called *merited response argument* that states that the humor token in question is funny only if it merits the positive response of comic amusement and that moral flaws count against this merit. Hence, moral flaws count against the funniness of the joke token.

The merited response argument has met some criticism. Carroll (2014, 246) for example points out that comic ethicists confuse moral merit and comic amusement. Being morally appropriate and being comically appropriate can come apart. Smuts (2010) also argues against Gaut's claims because he believes that there is no conceptual connection between moral merit and amusement.

In contrast to the comic ethicist the *weak* comic moralist believes that the immorality of a humor token *sometimes* makes it less funny (Carroll 2014). Smuts (2013) defends a *moderate* version of comic moralism and argues for a symmetric comic moralism. According to Smuts, moral flaws in a humor token may raise moral disgust or condemnation, which then blocks amusement. Symmetric comic moralism holds that while moral flaws sometimes inhibit amusement, moral virtues of a humor token can sometimes contribute positively to amusement because moral condemnation helps to identify the target of the humor token (Smuts 2013, 60).

Comic immoralism

As with comic moralism, we can distinguish between a *strong* comic immoralism and *moderate* comic immoralism. Whereas strong comic immoralism holds that a moral

⁷ This discussion mirrors the debate about the relation of aesthetic value and moral value of works of art (see Sauchelli 2016 for more on this).

flaw of a humor token always adds to the funniness of it, moderate comic immoralism claims that a moral flaw sometimes makes the humor token funnier. So far, there is no author who endorses strong comic immoralism.

The challenge for all versions of comic immoralism, forcefully introduced by Smuts (2013), is that the comic immoralist needs to show that a humor token is amusing *in virtue* of the moral flaw and not despite it. In other words, the moral flaw must somehow causally contribute to the amusement. According to Smuts, the comic immoralist cannot give a plausible account of how a recognized moral flaw can enhance amusement.

Various authors have addressed the immoralist challenge in recent times. In the paper of chapter three, I will present and discuss two recent defenses of comic immoralism that have been offered by Woodcock (2015) and Nanicelli (2014). Further, in the paper I present an account that is better suited to tackle so-called immoralist challenge introduced by Smuts than the accounts offered by these two authors. My account is based on the idea that amusement is a compound mental state that can explain how moral flaws *causally* contribute to amusement. The most recent account comes from Sharadin (2017). Based on the idea that incongruity contributes positively to amusement, he proposes that sometimes the *comic* proattitude that we have towards a joke and the *moral* con-attitude that we have towards it create an incongruity: "[...] an agent who is first amused by a joke and only subsequently judges that it is morally condemnable will experience a distinctive kind of incongruity in her attitudes" (13). In turn, this incongruity can be a source of amusement, which means that the moral flaw of the humor token contributed to amusement.

Comic amoralism

Lastly, I would like to mention the position of comic amoralism. Comic amoralism is a position that is opposed to both comic moralism and comic immoralism. Proponents of comic amoralism hold that to say that a token of humor is morally flawed is to commit a category mistake. Humor tokes (e.g. jokes) are neither moral nor immoral. The underlying idea here is that jokes are make-belief and that ideas are merely entertained but not necessarily held by the joke-teller or the listener (Conolly & Haydar 2005, 122). Note, that this defense of amoralism rests on an assumption that is the mirror image of the endorsement thesis of de Sousa (1987),

who claims that amusement requires that one actually endorse the views expressed by a humor token.

I think most authors would agree with the comic amoralist that as far as humor *types* are concerned, they are morally neutral. That is, some utterance is not immoral simply by being a joke for example. But, so far as humor *tokens* are concerned, comic amoralism does not seem acceptable. Humor, like most communicative devices, can be put to morally objectionable use. Jokes and satire can be used to insult someone or to make a racist remark. Humor tokens are acts and as such they are subject to moral evaluation (Carroll 2014). That is, humor tokens can be moral or immoral.

This concludes the brief section on the relation of humor, amusement and morality. In the next section of this introductory chapter I will turn the attention to sense of humor, which is intended to give some background for the paper of chapter four.

Sense of humor

"The sense of humor is one of man's natural endowments [...]"
(Knox 1951, 541)

At least in the western world a 'sense of humor' is among the most popular traits that people look for in a prospective partner. Further, saying that someone has a sense of humor is a positive predicate and the Forbes magazine (Smith 2013) reports that the overwhelming majority of business executives believe that a sense of humor helps to further the career. Despite its importance in almost all areas of life, the notion of 'sense of humor' is rather vague. Hans Eysenck (1972) for example identifies 3 different meanings of 'sense of humor': First, saying that someone has a sense of humor may mean that the same thing amuses her and you. Second, it might mean that this person is easily amused. Third, 'sense of humor' might mean that she is good at amusing others. Psychologists have further refined this distinction in that "sense of humor" might refer to the ability to either comprehend jokes, the ability to create jokes, the tendency to reproduce jokes, the appreciation of jokes or the urge to seek humorous material (Hehl & Ruch 1985). By the end of the 20th century, sense

of humor has come to be viewed as a personality trait worthy of serious scientific attention (Ruch 1998).

As is evidenced by the plethora of recent studies that investigate sense of humor in connection with pathologies (Falkenberg, et al. 2007), stress (Abel 2002) and mental health (Bennett & Lengacher 2006), the notion sense of humor is still alive and well in psychology. Given that the notion of sense of humor features prominently in psychology together with the evidence that humor and amusement have a lot of positive effects, it is surprising that the notion 'sense of humor' has not gained a lot of attention in philosophy and that there is a lack of conceptual clarification regarding the notion. This is surprising because the notion regularly occurs in their publications. Here are some representative examples: In 1936 Max Eastman said that our sense of humor is instinctive, which for him means that it is not based on reflection but on a neural mechanism (Eastman 2009, 26). Alas, Eastman does not pursue this idea and neither does he clarify what he means by 'sense of humor'. In his treatment of the connection between sense of humor and the virtues, Lippitt (2005) often uses the term 'sense of humor' but never introduces it properly. I suspect he assumes that the notion is so clear that every reader has a firm grasp on it. Likewise, Swabey (1985) talks about "tickling our sense of humor" (p. 822) but fails to explain what he has in mind. And Moreall (2009) informs the reader "that people with a good sense of humor go through fewer and less pronounced emotional swings" (68) and that "[k]eeping our sense of humor makes us not only more tolerant of people's differences, but more gracious" (p. 117), but leaves his audience in the dark as to what having a sense of humor involves. In his older writings Morreall uses 'sense of humor' to designate a stance that we take in the face of things happening in the world. Having a sense of humor, so Morreall, "gives us an approach to life as a whole" (Morreall 1983, 121). The situations gets even more confusing when authors like Metcalf (Metcalf 2004) seem to use the notions "laughter", "taking something not so serious" and "sense of humor" interchangeably.

With this rather bleak situation in mind, I now want to introduce some of the ways in which the notion 'sense of humor' might be cashed in and I will also say something about what follows from each notion for the ability to cultivate a sense of humor.

Perception of incongruity

The first reason for proposing that a sense of humor can be cultivated or trained appeals to the idea that amusement is based on the perception of an incongruity (see Oring 2003; Carroll 2014; Roberts, 2003, 301). The prototypical list of incongruities includes "deviations, disturbances or problematizations of our concepts, rules, laws of logic and reasoning, stereotypes, norms of morality, of prudence, and of, etiquette, contradictory points of view presented in tandem, and, in general, subversions of our commonplace expectations, including our expectations concerning standard emotional scenarios and schemas, our norms of grace, taste, and even the very forms of comedy itself" (Carroll, 2014, 27). Wherever the incongruity may lie in, be it between concepts, perceptions, the difference between expectation and reality or the opposition of scripts, there seems to be a consensus among many scholars that amusement involves the ability to perceive and identify something as incongruous (Shaw 2010).

Now, we are all familiar with people that have refined perceptual abilities. For example, some art lovers have trained their eye for the intricacies of painting styles. Other people have sharpened their auditory perception for the minute details of pitch and timbre of a sound. These sophisticated forms of perception did not develop overnight but are acquired via practice and continued attention to details.

Given that it is plausible to think that perception can be refined, here is how the argument for the trainability of sense of humor might go: To the extent that amusement involves the perception of an incongruity and perception can be trained or cultivated, a sense of humor is trainable. According to this line of argument, someone with a skilled sense of humor is a skilled perceiver of incongruities. She can 'perceive' the potential incongruities in a situation. In other words, to have a sense of humor is, in Roberts's words, to have an "eye for incongruities" (Roberts 1988, 273).

However, it is hard to say what the talk about 'perception' of incongruity amounts to. It is often left unclear if it is really a form of perception or whether the term is used metaphorically. When used as a metaphor, the argument for the trainability of amusement does not have a grip, because the intention is to convey something real by it, namely that amusement is something that can really be trained or cultivated. Consider this: The metaphor 'love is a journey' opens up some important aspects of love but it is clear that you cannot really plan and prepare for love like you prepare

and plan for a real journey. Love is not really a journey, nor would perception of incongruity really be a perception.

If 'perception' is meant literally, I have a hard time understanding what is at stake. Obviously we do not have a special sense organ for incongruities like we have specialized sense organs for sight, smell and sounds. No doubt, amusement involves some perception or other because we usually read a funny joke, observe someone who acts in an amusing way or we hear someone telling a funny story. However, just because perception proper plays some role somewhere in the process this does not mean that there is a perception proper, which has an incongruity as its object. Sensory perception is the paradigmatic and the only non-metaphoric example of perceiving⁸. Any other form of perception comes with some theoretical baggage that is more demanding: Moral perception means something like having a moral standard and applying it to what is perceived (i.e. situation S meets moral category M, and perceiving that S is the case; thus, M is the case). These moral standards and, by extension, standards of what is amusing are not perceptual in the paradigmatic sense. It follows that these forms of alleged perception need to be distinguished from the paradigmatic perception proper. Someone might object that perception proper also works like this as a top-down process: I assume that X is the case, and I know that X holds if Y is perceived; so I'll check whether I can perceive Y. This is clearly apt for judging whether X is the case; but it is not an apt analysis of what perception is, since it relies on the perception of Y, which is non-judgmental perception, in other word the paradigmatic case. To disentangle this, it may be useful to point out that perception proper is indeed tied to the idea of the stimulation of sensory organs, and that these organs do not do the judging9. Hence, we do not literally have an 'eye' for incongruities. If the perception of an incongruity were perception proper than we would have to say that when someone is not amused by something when others are amused, she fails to perceive something that others do perceive and when she is amused when others are not amused she perceives something that others do not perceive. But does that mean that when it comes to the perception of incongruities we can find cases of illusion or hallucination similar to the other perceptual abilities? This is highly contra-intuitive. I think that nobody would claim that someone who is amused by something that others do not appreciate that she is the victim of an

⁸ Which is not to endorse a naive perceptual realism, holding that it is just a bottom-up process.

⁹ I owe this paragraph to remarks and ideas of Joachim Lipski.

illusion or hallucination. Even more complicated, assuming that the perceptual view has some grain of truth to it, I do not know how to distinguish cases of illusory perception of incongruity from cases of hallucinatory perceptions of incongruity.

A way out for the perceptualist account of amusement might be to claim that the form of perception that is involved in amusement is an idiosyncratic perception that only perceives idiosyncratic objects (in this case incongruities) that nobody else perceives in the same way. So it would be neither an illusion nor a hallucination. This is problematic, however, because perception entails that it can be appropriate or inappropriate regarding its object. In the idiosyncratic scenario, there is no way to assess whether the perception of an incongruity was appropriate or not.

Here is another problem regarding perception of incongruity and amusement: Even if we agree that there is some sort of perception of incongruities that can be trained, it is not clear that training this perceptual ability will help on the way to improve your amusement. After all, it is not the only essential element in the process leading to amusement, even if we concede that it is necessary. Other factors might be equally important so that training your perception of incongruity does little to enhance amusement. Some authors have claimed that the incongruity, once it is perceived, also needs to be resolved in order to elicit amusement because if the perception of an incongruity were sufficient, then magic tricks would be amusing given that they involve some sort of incongruity. However, magic tricks are rarely amusing but rather puzzling. So, the idea goes, the detection of an incongruity is not enough for amusement because it also needs to be resolved ((Suls 1972); (Shultz 1974)). Note, that the detection and resolution of an incongruity are not sufficient either, because solved magic tricks do not trigger amusement.

To take stock here, I submit that all of the above reasons cast some serious doubt on the idea of 'perception' of incongruity, which in turn disqualifies the above argument for the trainability of amusement that rests on it. In the paper of chapter one I will present further arguments to the effect that we should be highly skeptical of the orthodox view in the literature, which holds that amusement is due to perception of incongruity. The notion 'perception of incongruity' that is in wide circulation in the literature on amusement and humor should be retired. In the paper I will present reasons to think that amusement is not the perceptual experience of incongruity and I will also make the point that incongruities cannot be perceived.

Sense of humor as taste

A second reason for thinking that sense of humor can be cultivated is that it is a matter of taste and that we can cultivate and develop a taste in what amuses us (e.g. Sharpe 1975). Everybody has a certain taste when it comes to humor styles: Someone might enjoy sick humor, while others enjoy slapstick or non-sense humor. The same goes for the various genres of comedic movies. Based on the observation that taste is something that can be acquired and cultivated because sometimes our own taste changes and wine connoisseurs were not born that way, the claim goes as follows: Sense of humor is a taste and tastes can be changed and cultivated if you put in the effort.

Even if we concede the antecedent of the claim, namely that sense of humor is a matter of taste, we do not have to agree to the subsequent part that it is the kind of taste that can be actively cultivated or changed. It is not clear that sense of humor is as cultivatable as the taste of wine or the taste in classical music. So although your taste in wine and classical music might be malleable, your humor taste might not be changeable via practice. That does not mean that we have to deny that sense of humor as a preference can change. Psychologists tell us that the preference for humor style changes with age (Ruch 1990). It changes during the course of life, without any effort on our part; similar to the change of culinary taste that is said to occur every seven years.

Also, the taste in some kinds of humor might be simply a preference that never changes. What I am aiming at is that sense of humor might be a taste similar to sexual preferences. Sometimes sexual preferences are also called a taste for some practice or other. However, in cases of sexual preferences it is not so clear-cut whether they can be changed. Although, of course, the behavioral aspects of a particular sexual taste can be omitted, the preference nevertheless remains. To stay in the analogy, you might not help it to experience amusement in some situation, but you can suppress your laughter: "[...] laughter is more controllable than the sense of humor, since with great effort it can usually be quelled, even after it starts" (Smuts, 2010, 344). Further, as far as preference for a certain humor style is connected to personality traits like experience seeking (Samson, et al., 2009), I am unsure whether they are even subject to training, given that it seems that personality characteristics cannot easily be changed.

To sum up: Although I do not see any trouble with the idea that sense of humor partly due to taste, I am not convinced that it is a taste that is malleable.

Reproduction of funny material

I think the least challenging idea when it comes to the training of sense of humor is the reproduction of already existing comedic material. Familiar examples are of course the recitation of jokes or the re-enactment of humorous scenes from movies.

I said least challenging because the ways to improve your ability to do all that have nothing to do with amusement but concern other abilities such as memory and techniques of recitation (e.g. the right timing). We all know that memory can be improved and that techniques of presentation can be trained (Otherwise confidence coaches and presentation teachers would have gone quickly out of business). You do not even have to be amused by the material that you are presenting, because an actor does not really have to be frightened in order to authentically convey fear to the audience. To sum up, training may enhance sense of humor in the sense of the ability to recite material, although it is detached from amusement.

Production of funny material

The production of humorous material like jokes or funny sketches seems to be something that that can be improved because nobody is born as a comedian. Despite the findings of a recent comprehensive review suggesting that practice might not be that important for the mastery of a skill and that the amount of practice required varies from field to field (MacNamara et al., 2014), it does not follow that practice does not make you better. It only draws into question the factor of practice time as the sole relevant factor in gaining expertise.

I wager that the production of humorous stuff is a sub-class of creative activity and that "a capacity for comedy reveals a capacity for creativity" (Miller, 2001, 415). The production of humor is similar to other creative endeavors like creating poetry of scientific insight in that yields a novel product that establishes new connections between things. It also usually requires some good amount of imagination.

So, besides some special measures of improvement that particularly pertain to the creation of humor (like reading how-to books or paying attention to how jokes work) the things that are generally considered to improve creativity will be of importance. Research has already told us that brain integration and processing speed correlates

with creativity (Travis & Lagrosen, 2014) and that openness to experience is a major contributor to creativity (Li, et al., 2014). Whereas the first might be something that can be improved by practices such as meditation (Travis, 1979), the latter is certainly something that can be improved with a little will-power. Nobody is doomed to be close-minded and openness to experience is something that can be cultivated. All in all, sense of humor in the form of creative production of humor is something that I think is cultivatable and trainable by almost everybody.

All of the above is intended to give some background for the paper in chapter four, where I concentrate on the ability to be amused and the question whether we can actually cultivate or train our ability to be amused. In the paper, I will advance an argument to the effect that we cannot because training is detrimental to the cognitive process underlying our ability to be amused.

Chapter One

In the introductory chapter I have introduced the three big humor theories,

superiority theory, relief theory and incongruity theory. Please recall that the

incongruity theory of humor is the most popular account of humor and amusement

today. In the first paper of this chapter, I will turn to incongruity theory. More

specifically, I will address a notion that is popular with proponents of incongruity

theory: The view that amusement is due to a 'perception' of incongruity. I will give

reasons why the talk about 'perception' of incongruity should be discarded.

In the second paper of this chapter, I will offer a critique of Spiegel's (2013)

account of why flatulence is funny. Spiegel makes use of ideas from incongruity

theory, but also elements from superiority and relief theory. I will point out flaws in

his account. Together, the two papers suggest that there is still a lot of theoretical

work to do for incongruity theorists.

The Queen would not be amused - Perception of incongruity debunked

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Author contributions: Steffen Steinert wrote the paper.

1. Introduction

Arthur Schopenhauer claimed that amusement is due to the perception of a

mismatch between concept and percept and Francis Hutcheson believed that

laughter is the response to the perception of incongruity. Ever since these forefathers

of incongruity theory, a lot of philosophers of humor adopted the view that

amusement requires the perception of incongruity. To name just a few recent

examples here: Oring (2003) holds that amusement depends on "the perception of

an appropriate relationship between categories that would ordinarily be regarded as

incongruous" (p. 1). According to Carroll (2014) one is in the mental state of comic

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amusement only if the primary object of that state is a perceived incongruity (Carroll 2014, 27). Various others have also claimed that amusement is the enjoyment of a perceived incongruity (Clark 1970) or the perception of only a certain range of incongruities (Roberts 2003, 301).

It is interesting to note that the idea of perception of incongruity is so prevalent in the literature on humor and amusement although, as far as I can see, there is no argument for it on the market other than its intuitive appeal and its supposed power to explain a wide range of phenomena better than competing accounts like superiority theory or relief theory. Given this lack of argument it is rather funny (funny 'huh', not funny 'haha') that the notion is usually used in a matter-of-factly way, as if it were obvious to everybody that this is the correct way of talking about amusement.

In this paper I will advance some arguments to the effect that we should be highly skeptical of the orthodox view that amusement is equal to or involves a perception of incongruity. This amounts to the claim that the notion "perception of incongruity" that is in wide circulation in the literature on amusement and humor should be retired. I will present reasons to think that amusement is not a perceptual experience of incongruity and I will also make the point that incongruities cannot be perceived.

2. Incongruity

As a start it will be useful to consider what an incongruity is. Here are some candidates from the literature of things that are said to be incongruous: The classic rendering comes of Schopenhauer, who says that an incongruity can consist between perception and concept. He argued that the cause of laughter is in every case the sudden perception of incongruity between the concepts that have been applied to the object and the real objects itself. It has further been suggested that categories can be incongruous to one another (Oring 2003). Most recently, it has been claimed that incongruities are "deviations, disturbances or problematizations of our concepts, rules, laws of logic and reasoning, stereotypes, norms of morality, of prudence, and of, etiquette, contradictory points of view presented in tandem, and, in general, subversions of our commonplace expectations [...]" (Carroll 2014, 27). From these examples, we may distill some minimal characterization of incongruity: (1) An incongruity is relational; (2) An incongruity is a comparison of some sort; (3)

Incongruity depends on the norms, background knowledge, values and motivation of the individual. This is not intended to be a definition of incongruity and I will come back to this characterization later. Please note that I also will not take a principled stance on the issue of whether incongruity is a helpful concept in the examination of humor. Some authors have further pointed out that one problem for incongruity theory is the lack of definitional clarity regarding the notion of "incongruity" and raised concerns as to the explanatory power of this notion and presented modifications (Warren, McGraw 2016). Let me just say here that I think that there are some good reasons to believe that incongruity might not be the best notion to go about humor (Latta 1999).

Proponents of the perception of incongruity-view may cash in their position in two ways that are not mutually exclusive but might be combined. First, they may claim that amusement merely *involves* the perception of incongruity. We may call this the additive model of amusement, because it holds that amusement is perception of incongruity *plus* some element X. A possible candidate that has been put forward in the literature adds *resolution* to the perception of the incongruity. Second, the notion might gain its momentum from the claim that emotions are perceptual experiences. It has become popular to claim that emotion is a kind of perception (Prinz 2006; Prinz 2004) or that emotion is analogous to perception (Roberts 2003; Deonna 2006). Hence, the proponent of the perceptual view of amusement may argue that given that amusement is an emotion and emotions are perceptual experiences, amusement is a perceptual experience, namely the perceptual experience of incongruity.

After this rudimentary clarification of incongruity and a distinction of the perceptual view, I will now advance arguments to the effect that amusement is not a perceptual experience of incongruity. After that, I will show that incongruities cannot be perceived.

3. Perception of incongruity? - Phenomenology, content and illusion

Before delving into matters of phenomenology and representational content, let me begin with three quite superficial reasons why we should regard the claim that amusement is perception-like with suspicion: First, a good reason to think that amusement is not perception-like is that the experience of amusement is not exteroceptive like other perceptions. Visual experience and also olfactory experience for example are exteroceptive in that when one smells or sees something the object is external to the body (Richardson 2013, Sniffing and Smelling). So, via perception we find out about stuff that is external to our body like objects or the qualities of these objects.¹⁰

Second, another good reason to question the claim that amusement is perception-like is that perception can be repeated without being that same experience. What I have in mind here is this. Imagine that everyday at noon you would look at some red object. Even after 5 years of looking at the same red object, the experience would still be the same; namely an experience of this particular red object. Now imagine doing the same with a particular joke. Everyday at noon you would read or hear the same joke. I wager that after 5 years the experience is not similar it was on the first day. You would still read or hear what you know is a joke, but it would not be amusing anymore, which is to say the experience has changed in an important respect. If amusement where analogous to perception, then the repetition should not change the experience, but this is not the case.

Third, an additional difference between amusement and perception is that the values, norms and motivations of a person can interfere with her experience of amusement. The person that holds religious faith in high esteem is less likely to be amused by material that targets religious beliefs. Similarly personal history can have an effect on amusement. You will likely not be amused by a dead-baby joke when you have some experience in that area. We can look at empirical evidence that suggests that people with a high level of commitment to a norm are less likely to be amused when this norm is violated (McGraw & Warren 2010). In contrast, the values, norms and motivations as well as the personal history of experiences do not interfere with perception. The apple is red and the sky is blue not matter what your denomination or political conviction. There is an objection to my line of thought due to the work by cultural psychologists which focuses on the cultural differences of perception. Research in cultural psychology seems to have shown that to some extent people from different cultural backgrounds perceive the world differently (Nisbett 2004) so

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¹⁰ It seems, however, that not all perception is about things that are external to the body. It is common to distinguish between exteroception and interoception. The former relates to stimuli that are external to the body, whereas the latter is about stimuli that are produced within the body. Examples of interoception are hunger and pain. Proprioception, which gives us information about the position and movement of the body, is another example for interoception. Whether all bodily sensations can be accounted for in perceptual terms has been the subject of a lot of philosophical debate. It seems that bodily sensations, such as touch for example, are perceptual in nature, whereas this is not so clear in the case of bodily feelings like hunger.

values and norms result in a different style of perception. As remarkable as it is, the cultural background seems to influence perception only in a very general way and not the specific way I have addressed here. Further, the research on cultural differences does not show that there are interpersonal differences in perceptual styles within a certain culture that are due to subjective sets of values or norms. It is correct that there are cultural differences in humor appreciation as there are cultural differences in perceptual styles. Some humor is hard to appreciate, when you do not come from a certain cultural background. However, culture cannot account for the individual sense of humor that is based on individual norms and values. Personal values and norms affect amusement in a way in which it does not affect perception.

The topic of values and norms will also become crucial in a later part of the paper. I will now turn to other, more technical, reasons why amusement is not a perceptual experience of incongruity.

3.1. Argument from phenomenology

In this section, I will put forward a simple claim: The position that amusement involves the perception of incongruity (in any shape or form) does not do justice to the phenomenology of the experience of amusement. Put differently, the 'what-its-likeness' of amusement does not sit well with the claim that it is a perceptual experience.

Following Batty (2011), I want to deploy a phenomenological notion of representational content here: "the representational content of an experience is the way the world appears to the perceiver when she undergoes that experience [...]" (165). What follows from this notion is that there is a *phenomenological constraint* when it comes to the characterization of the content of experience in that the characterization and assignment of the content of the experience must respect and should be compatible with the way that the things appear to a perceiver who undergoes that experience. For example, the characterization of the content of visual experience as objects, features of objects and spatiality sits well with how the world appears to the perceiver when she has this experience. Similarly, a characterization of the content of fear as something that the person undergoing this experience wants to avoid respects what it is like to undergo the experience of fear. Fear entails a strong desire that the situation may change and also has a strong motivation for

certain actions like fleeing the situation. In the case at hand here, the characterization of the content of amusement must respect what being amused is like to the person who is amused. Now, being amused is not to experience some incongruity. In the experience of amusement the world does not appear in a certain way, which is to say the world does not appear to have some incongruity. In being amused we are not in touch with some incongruity, as it were. Amusement does not present itself to the individual as having a representational content that can be described as an incongruity. The representation of there being an incongruity is not part of the pleasant experience of amusement, like the representation of an object with some features and certain spatial configurations is part of the visual experience. So, the notion of amusement as the perception of incongruity is misguided. In other words, the incongruity is not part of the experience of amusement.

The phenomenological character of the perception of the outside world allows us to distinguish between different colors, lengths, sizes, and so on. If there was a perception of incongruity, then the phenomenological character of the experience should enable us to distinguish between different incongruities. That means that the phenomenological character of the perception of incongruity concerning norms should allow us to distinguish it from the phenomenological character of the perception of incongruities regarding concepts. However, we all know from our own experience that the phenomenological character of amusement does not enable us to make this distinction. What it is like to be amused always has a similar phenomenological character (I think that emotion kinds can, in part, be distinguished by their phenomenological character). Hence, characterizing amusement as perception of incongruity is misguided and does not really do justice to the phenomenology of amusement.

Another related reason why amusement is not a perception of incongruity is based on the following consideration: If amusement is a perception of incongruity, then it would qualify as *intentional* in the sense that it would represent something as being in this or that state because perception represents things as being in this or that way. That is, amusement would represent something as being incongruous. However, the experience of amusement does not represent something as being in this or that state. Amusement does not give us something as being incongruent. Hence, amusement is not a perception of incongruity. Also, perceptual experiences are sometimes expressed in propositions like 'There is an apple that is red'. We do not have

something similar regarding amusement. If amusement were the perception of incongruity, we should (at least sometimes) witness people expressing this experience with sentences like 'This is incongruous'. However, I wager that nobody ever used a sentence like 'This thing is incongruous' as an expression of amusement. So, amusement is not a perceptual experience of incongruity.

Which is not to say that amusement is not a distinctive kind of intentional state. The structure of the intentional state goes something like this: 'I am amused about/ that/ by x', where x can be an event, an object or a person. Please note that the content of x does not have to be propositional in form. The content can be propositional as in cases where I can give statements like 'I am amused that the clown fell down the horse', but it can also be non-propositional in the sense that x is an object or a person that is funny.

3.2. Incongruity and content of perception

Another reason to be skeptical of the notion of perception of incongruity has to do with perceptual content. For the proponents of the perceptual thesis of amusement, the content of the perception is an incongruity. After all, that is what it is supposed to be: a perception of incongruity. Now, according to the minimal characterization given above, they would also admit that an incongruity depends on the background knowledge, values, norms and motivations of the person. But these two claims are at odds and actually work against the perceptual thesis. The content in paradigmatic cases of perception is not dependent on the motivations, norms and values of the person (Deonna 2006). The apple in front of me is red no matter how I am motivated, what values I have or whether I prefer bananas over apples. Likewise, the apple is also red whether I have some background knowledge about apples or not. Similarly, I hear a piece of music, not matter whether I value music at all or have any background knowledge about the particular piece.

Now, if incongruity is dependent on values, background knowledge, norms and motivations of the person, and if the content of paradigm forms of perception is not dependent on the motivations, norms and values of the person, then the content of the alleged perception of incongruity is dissimilar to the content of paradigm forms perception. This, I think, is another reason to be skeptical of the notion of perception of incongruity.

3.3. Illusion

Perceptual experiences can be illusionary. The spoon in your tea looks as if it is bend and the lines in the famous Müller-Lyer drawing look as if they have different lengths. An illusion is "any perceptual situation in which a physical object is actually perceived, but in which that object perceptually appears other than it really is" (Smith 2002, 23). In an illusion, your are aware of an object that has some quality or feature that it does not really have. In other words, the object of perception is not represented accurately; the world is simply not that way. Now, if amusement really is or is grounded in some perception of incongruity, then illusions should be possible. However, there are no illusions when it comes to amusement. There are no cases where you are aware of some quality of an object (being incongruous, that is) that may turn out not to be a quality of this object. There are no illusions when it comes to amusement, because illusions are not possible. In order to be under an illusion, you need to be aware of an object that has some quality F. An illusion presupposes an object that seems to have a certain quality. However, incongruities are neither objects, nor qualities of objects. It does not make sense to say that object O has the quality F incongruous. According to the minimal characterization, an incongruity is a relation between two things. Another related point is that there seems to be immunity to error because incongruity depends on the subjective normative set-up, the expectations and so on. Crucially then, you cannot be mistaken when it comes to incongruities. If it is incongruous to you, then it is incongruous, period. And it cannot turn out to be the other way. Illusions are a possibility for perceptual experience and they are not a possibility when it comes to the experience of amusement. This should serve as another reason to be skeptical of the perceptual view of amusement.

4. Incongruities cannot be perceived

When we perceive we perceive either material objects or features that are dependent on these material objects. For example, in vision, we perceive the chromatic or dimensional features of an object or its position (Mc Neill 2010). I visually perceive the brownish-wooden color of the table and how it extends in front of me. In contrast, incongruities are not material objects itself. So, incongruities cannot be perceived. However, detected incongruities may depend on material features like

distorted faces in a slapstick routine, but that does not mean that the incongruity itself is perceived.

Someone may object here that an incongruity in some way depends on material objects and their features. After all, we see the comedian making a funny face and listening to a joke is picking up sound waves and sound waves are physical object, broadly construed. Similarly, visual incongruities, like the different lengths of objects, depend on the material objects that we perceive. Now, I think we can concede that incongruities depend on some perception of material objects (either auditory or visual), but that does not mean that the incongruity itself is perceived. My visual perception of the numbers on a sheet of paper is the basis for calculating the balance, but I do not perceive the balance itself. Reading the words of a poem on the page is the basis for me imaging a scenery but the scenery itself is not perceived.

In the next section will now consider another possible objection to the points that I have made here.

5. Possible objection

Just to be clear, my argument is only aimed at debunking the idea that amusement is or involves some perception of incongruity. This is not to say that some process in which incongruity plays a role cannot cause amusement. There is just no perception of an incongruity. Cause and representation are distinct. Thunder may represent lightning in virtue of being caused by it, but, as evidenced by hallucinations, an experience does not have to represent its cause. The representation of a mental state might be caused by something that this mental state does not represent. In turn, a mental state can represent something that did not cause the representation. Usually, sensory perceptual experience represents the thing that causes it and, further, sensory perceptual experiences are normally caused by the things that these experiences represent. For example, the visual experience of a green tomato in front of me is a direct response to the green tomato in front of me. So what is represented is not necessarily what has caused the experience. Amusement as mental state might have the intentional content of incongruity although it was not caused by it. Or amusement might be caused by an incongruity although it does not represent this incongruity. An argument in favor for one option or the other would require more thorough considerations and possibly another paper. The arguments advanced here,

however, do not turn on these matters. Amusement is not a perception of incongruity, whether or not incongruity might play a role as cause or representational content of the mental state of amusement.

Let me now look at an objection to the points that I presented above. I have argued that amusement is not a perceptual experience of incongruity. But someone may suggest that if amusement is an emotion, as several authors have claimed ((Sharpe 1975; Roberts 2003; Palencik 2007)), and we also have good reasons to believe that an emotion is a perception, then amusement is perceptual. And what else would it be a perception of other than incongruity?

There are a few responses to this objection: This line of argument does not establish that there is a perception of incongruity involved. We need to differentiate here between a perceptual view of emotion and the claim that amusement is the perception of incongruity. You can hold the view that emotions are perceptual, without having to affirm the claim that amusement is or involves a perception of incongruity. Amusement might be a form of perception like other emotions in that it is modular process that shares all the features of paradigm perceptions (see Prinz 2006), but that does not meant that it is a perception of an incongruity.

But even the view that emotions are perceptual should not be taken for granted because there are good reasons to be suspicious. It is worth underlining that emotions do not involve one of the 5 perceptual modalities (Whiting 2012). Emotions are not like sensory experiences because emotions are normally caused by other mental states, whereas sensory experiences are not caused this way. Also, claiming that emotions are like sensory experiences implies that people who fail to possess the relevant sensory modalities cannot experience the emotion in question. But this is false. Deaf and blind people for example are susceptible to the same range of emotions as anybody else. Further, we also need to consider that the view that emotions are sensory experiences does not describe correctly the phenomenology of the experience of having this emotion. To be angry is not like visually experiencing something.

6. Conclusion

I have advanced reasons to the effect that amusement is not a perceptual experience of incongruity and that incongruities cannot be perceived. If the points that I have made here are convincing, then we have good reasons to retire the notion of perception of incongruity. The notion may still have some metaphorical value but ultimately, I would like to suggest, it stands in the way of a proper understanding of amusement and I propose we start looking for a less metaphorical and more scientifically tenable notion of what goes on when we are amused.

Cut to the cheese - Reply to Spiegel's 'Why flatulence is funny'

(Published in *Think*, 2017)

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Author contributions: Steffen Steinert wrote the paper.

1. Introduction

I am always happy when philosophers tackle phenomena that lay besides the trodden

path of scholarly attention. Therefore, I was excited to encounter the piece by James

Spiegel in *Think* (Vol. 12, Issue 35) that focuses on humor and flatulence. Upon close

inspection, however, there are some problematic issues with his account of why

flatulence is funny that I would like to address here. I will start off by giving a short

summary of Spiegel's arguments. Then, I will present five problems of his account:

(1) His claim that laughter always results from a pleasant psychological shift is false.

(2) His argumentative move from what makes paradigm cases funny to what makes

flatulence funny is unwarranted.

(3) His notion of a psychological shift is not specific enough and lacks explanatory

power.

(4) The claim that funniness of flatulence involves superiority is doubtful.

(5) Fifth, his talk about 'nervous energy' is theoretically questionable and has

implausible implications.

2. Spiegel's account

Spiegel's answer 'why flatulence is funny' has two parts. First, he elucidates what

generally makes things funny. Second, he claims that there are several reasons why

flatulence is especially funny. I will now briefly present the two parts.

(1) What makes things funny? Following Morreall's theory (Morreall 2009) of

humor that is amalgamated out of insights from the major classical theories of

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humor, Spiegel claims that what makes jokes and other incidents amusing is a pleasant psychological shift that results in laughter. According to Morreall, the shift is a change of psychological state, whereas the shift is rather broadly construed as either cognitive, affective or perceptual. Spiegel concludes that it is a psychological shift that is also responsible for why flatulence is amusing to us (if it is amusing, that is).

- (2) What makes flatulence especially funny? Based on the claim that flatulence is more humorous than most other comical phenomena (A claim that I find doubtful but that I will not address further.), Spiegel sets out to find an answer as to why that is. Given that 'there are diverse ways to produce the pleasant psychological shift leading to laughter' (p. 23), flatulence (in contrast to things that are less funny) is especially funny because it has a variety of comic qualities that render it amusing. Spiegel identifies three comic qualities that are said to produce the pleasant psychological shift:
- (i) Flatulence produces a sudden sense of superiority in the observer in that it diminishes the dignity of the person who farts in public.
- (ii) Flatulence presents multiple incongruities at once. Incongruities can be all kinds of deviations, disturbances or contradictions of our concepts, expectations, norms or etiquette. One incongruity in the case of flatulence pertains to the social context because there are a limited number of contexts where flatulence is permissible. The sound of flatulence is incongruous with the formal setting of seriousness at a public presentation for example. Another incongruity is that farting diminishes the dignity of the social standing of the person who farts in public, given that she or he has a high social standing (This point is obviously connected to the first about the dignity of the person).
- (iii) Flatulence is a social taboo. Because it is a social taboo, so Spiegel, nervous energy is released upon witnessing somebody fart. This nervous energy is then released in the form of laughter. For Spiegel the reason why the nervous energy is built up in the first place is because we all fear the embarrassment of farting in public. We value a proper public appearance and are anxious to come across as decent members of society. That in turn means, 'we all must exert some effort to arrest, forestall, or silence our emissions, lest we undermine all our work to maintain a decent appearance.' (p. 24). To master all this, we build up nervous energy. So

upon witnessing somebody fart in public, the idea goes, we are reminded of our fear of public farting and our nervous energy is released as laughter.

After this short sketch of Spiegel's account, I will now point out and explore some challenges. Please note that it is not my intention to argue that flatulence is not funny (because I think it more than often is), I merely want to address some issues and pressing problems of his account.

3. Shifts and laughter

First, I want to take issue with Spiegel's point that 'laughter always results from a 'pleasant psychological shift' of some kind' (p. 20; italics mine). If left unqualified, this claim is simply not true. There are instances of laughter that clearly do not result from a pleasant psychological shift. Inhaling nitrous oxide causes laughter and if you suffer from pathological laughter and crying (a condition that even has its own abbreviation, PLC) you experience uncontrollable bouts of laughter and crying without any stimulus that triggers it. Further, the laughter that sometimes overcomes us in uncomfortable situations is also not due to some pleasant psychological shift. It is more like a defensive gesture. Other kinds of laughter that are not due to said shift include socially beneficial laughter at the horrible joke of your boss, the pity laugh at the botched comedy performance of your friend and, I am following Henri Bergson (1917) here, laughter as an instrument to install social discipline. So clearly, a pleasant psychological shift is not causally necessary for laughter.

4. Of shifts and amusement

Spiegel claims that whatever makes paradigm cases (like jokes funny) is also what makes flatulence funny. Flatulence is amusing, he says, because it triggers the pleasant psychological shift that is the condition of humor.

I want to contest the argumentative step that he makes from the claim that a psychological shift is responsible for many amusing phenomena to the conclusion that flatulence is amusing because it also involves such a psychological shift. I think this step is more of a leap because it is unwarranted and requires additional justification.

Why should we believe that a pleasant psychological shift is produced by such diverse amusing episodes like the antics of a toddler and a joke? Only in the latter case I would be inclined to say that there might be a psychological shift of some sort because in the punch line an expectation is rendered void or some incongruity is resolved. It may very well be that what makes flatulence funny is something completely different from a psychological shift (whether cognitive, affective or perceptual), although a psychological shift is what makes jokes or slapstick funny.

It does not help that Spiegel states that Morreall's notion of pleasant psychological shift has a lot of explanatory power where incongruity theory, relief theory and superiority theory fail. He claims that '[w]hether tickling or making faces at an infant or young toddler, the child surely experiences a 'pleasant psychological shift', so the consequent laughter is easily accounted for.' (p. 20). Why should we believe that the child 'surely' experiences a pleasant psychological shift? The reason for believing that there is a psychological shift cannot be because the child laughs, because that amounts to the claim that if there is laughter, then there is a psychological shift. A claim that is false.

Phenomenology and introspection are obviously not a proper guide here, because we cannot conclude from the same 'feeling' of two experiences that they are due to the same underlying psychological mechanism or cognitive process. The same emotional reaction can have a variety of underlying cognitive mechanisms. Just because flatulence and jokes sometimes share the same affective reaction that has a positive valence (i.e. Amusement or mirth), does not mean that the underlying process is the same.

5. Explanatory power

Spiegel seems to make the following deductive argument:

- 1. All episodes of amusement involve a psychological shift. (Although he does not use the word 'amusement' but 'laughter', I assume that is what he has in mind.)
- 2. Flatulence is amusing.
- 3. Therefore, flatulence involves a psychological shift.

Although this deductive argument is valid, it is also unsatisfying because the first premise is highly underspecified and in need of elaboration. Obviously, it cannot be that the notion of a psychological shift refers to all psychological and cognitive operations that bring forth amusement because then the argument would be trivial There is always something cognitive and psychological going on before, during and after episodes of amusement. But the cognitive mechanisms responsible for the amusement we find in puns are certainly different from the mechanisms of funny cartoon captions or the mechanisms involved in Slapstick. This means that as long as it is not specified what the notion of 'psychological shift' amounts to, the argument does not get any real traction.

My point is not that Spiegel's account is wrong but that as it stands right now it is rather uninformative. Simply to say that flatulence is amusing for the same reason that other things are amusing is like saying that the ball is red precisely for the same reason that other things are red and that this reason is some activity in the brain that brings about the experience of redness. The account is simply incomplete in that it does not provide an explanation of how the cognitive shift is said to cause laughter, let alone what the nature of this shift is. What is needed here is an account of how the mechanism underlying the psychological shift is supposed to work (For an example of such an account see Hurley, Dennett & Adams 2011).

6. Questioning the superiority claim

I also want to call into question Spiegel's claim that flatulence triggers a certain sense of superiority in the spectator. Why would it involve a feeling of superiority when at the same time, according to Spiegel himself, we all have a fear of passing gas in public, something that Spiegel calls 'flatulence anxiety'? I want to object here, that the other person passing gas painfully reminds us that we are in fact not superior to him or her because it brings to mind that we also have a body that is sometimes not under our control (Ribeiro, 2008, 140) and that farts always remind us of the presence of the body that makes itself known (Critchley, 2002, 41 ff.). So we are not better or superior than the person who farts. This casts doubt on his superiority claim and is in need of clarification.

7. Nervous energy

The last point I would like to address is Spiegel's claim that bearing witness to a fart invites the release of nervous energy that is exhausted in laughter. There are two

problems here: First, this claim subscribes to a highly suspicious hydraulic account of the mind that involves some immeasurable nervous energy and defies falsification. Second, the claim also entails the implausible consequence that there is a built up energy for all kinds of fears that pertain to public appearance. Because we are not only afraid of farting in public but also of burping in public or having a running nose in public, there should also exist built-up energy accordingly. Or maybe you are afraid of bumping into strangers on the subway, or you are afraid of people watching you eat in public. There should be build-up nervous energy for these all the time too.

Even if I were to adopt the assumption that there is something like a built-up nervous energy, I think it makes more sense to say that the energy is build up and the fear level rises when we are on the verge of passing gas ourselves because this is a potential situation where your decent public appearance is on the line. When you are simply reminded of this fear there should not be any build-up of energy unless you are suppressing a fart yourself at the moment.

8. Conclusion

I have presented five problematic points in the account that Spiegel gives of the funniness of flatulence. First, his claim that laughter always results from a pleasant psychological shift is false. Second, his argumentative move from what makes paradigm cases funny to what makes flatulence funny is unwarranted. Third, the nature of the psychological shift is not specific enough and lacks explanatory power. Fourth, his claim that the funniness of flatulence involves superiority is doubtful. Fifth, besides the problematic theoretical standing of 'nervous energy', the idea of a build-up nervous energy has implausible implications.

Despite my critique, I think that Spiegel's paper is a valuable step towards understanding an interesting but neglected humorous phenomenon. My hope is that the critical points that I raised here help to clarify some of the issues so that we gain a better grasp of what really makes flatulence funny.

Chapter Two

In the two short papers of chapter one I have attempted to show that the notion of

'perception of incongruity', which is popular among incongruity theorists, should be

discarded. Further, in the second paper I have presented a critique of a particular

application of ideas taken from incongruity theory, superiority theory and relief

theory.

The single paper in this chapter also deals with incongruity theory but has a

specific focus on emotions and emotion theory. Several authors have proposed that

the formal object of amusement is 'incongruity' or 'the incongruous'. My goal in this

paper is modest: I will show that this view not tenable. Drawing on the widely

accepted idea that the formal object of emotions is evaluative properties, I argue that

incongruity is not an evaluative property and therefore not the formal object of

amusement.

Amusement and incongruity - On the formal object of amusement

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1. Introduction

In this paper I want to argue against a fashionable claim in the literature on humor.

The claim is that incongruity or the incongruous is the formal object of the emotion

of amusement. The question regarding the formal object of amusement is

philosophically relevant because amusement is one of the most important emotions

and at the same time one of the most understudied emotions.

I will proceed as follows: In the first part I will set the stage by introducing some

authors who have claimed that the formal object of amusement is incongruity. Then,

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I will make plausible the claim that amusement is an emotion and also say something about what formal objects are. I will then introduce the widely accepted view that the best candidate for formal objects of emotions is evaluative properties. Next, I will give two arguments to the effect that incongruity cannot be the formal object of amusement: First, incongruity is not the formal object of amusement because incongruity is *not* an evaluative property. Second, based on the idea that the formal object is the feature by which we evaluate the appropriateness of emotions, I show that holding on to the assumption that incongruity is the formal object of amusement runs into problems in accounting for the appropriateness of amusement.

2. Amusement and its formal object

In this section, I will illustrate a dominant view in the literature is that the formal object of amusement is some incongruity (sometimes also referred to as 'the incongruous'). Keep in mind that I do *not* attempt to give a comprehensive review of the literature on amusement. Instead, I will use representative examples.

In his attempt to give a defensible version of incongruity theory, Clark (1970) presents his candidate for the formal object of amusement as follows:

"I will suggest that it is an essential feature of any object of S's amusement that it should be seen as incongruous by S. In other words 'that which is seen as incongruous' gives the formal object of *being amused by*."

((Clark 1970, 24), italics original).

A couple of pages further, Clark puts it even more succinctly: "[...] the apparently incongruous is the formal object of amusement." (1970, 28). In a subsequent paper, Clark repeats his thesis that every object of amusement is perceived *as incongruous* and that incongruity characterizes the formal object of amusement (Clark 1987, 238). I take it that what Clark means when he talks about 'perceiving as' is not an actual perception, but something along the lines of *appraisal* or *apprehending*. Similarly to saying that in the emotion of fear we appraise something as dangerous.¹¹

More recently, Carroll (2014, 49) has claimed that a creature is in a state of comic amusement just in case the (1) object of the mental state is a perceived incongruity which (2) one regards as non-threatening or otherwise anxiety producing and (3) not

¹¹ Please note that some authors use the term 'appraisals' and other use the term 'evaluation'. For a definition of appraisal and an overview of appraisal theory of emotion please see Moors et al. (2013). For my purposes here, I take the term 'appraisal' to be synonymous with 'evaluation'.

annoying and (4) towards which one does not enlist genuine problem-solving attitudes (5) but which gives rise to enjoyment of precisely the pertinent incongruity and (6) to an experience of levity (that is an experience that accompanies the disappearance of a cognitive demand into nonsense). Regarding the objects of the emotion of amusement Carroll offers the following:

"Humor for the incongruity theory, is a response-dependent property of a certain type of stimulus, viz. stimuli that support our amusement in response to their display of the property of incongruity (or incongruous properties). That is, perceived incongruity is the *primary object* of the mental state of comic amusement; one is in a state of comic amusement *only* if the object of that state is a perceived incongruity." (Carroll 2014, 27).

Some unpacking is necessary here: A response dependent property is a property that depends on the cognitive response we have. It is not a property that something has intrinsically. So, for example, visual experience presents the response-dependent property of color. Similarly, the emotional experience of anger presents the response-dependent property of being offensive. Note that the property of incongruity is also a response-dependent property, because it depends on the availability of a cognitive response we have. Which does not mean that the property of incongruity is necessarily dependent on having the emotion of amusement because we can judge that two things are incongruous in the absence of amusement (More on this later in the paper).

For an incongruity theory, a version of which Carroll proposes, the formal object of amusement is clear:

"[...] on the incongruity theory, the formal object is that which seems to me (or which I apprehend and appraise as) incongruous." (Carroll 2014. 56).

On the page before, he characterizes the intentionality of comic amusement parallel to the intentionality of fear when he writes that the object "[...] is perceived to be threatening, but may not be. [...] Likewise, the object of comic amusement is perceived to be incongruous, but need not be." (55). Given that this is supposed to be an analogy between fear and amusement and given that the formal object of fear is danger (or 'the threatening'), I believe we can assume that what Carroll has in mind here is that the formal object of amusement is *incongruousness*.¹²

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¹² As I have stated in the beginning of this paragraph, the idea that the formal object of amusement is incongruity or the incongruous is the prevalent view, but it is by no means the only view. Other authors have offered other

I want to close this section with brief detour that includes a tentative diagnosis: The reason why scholars have considered incongruity to be the formal object of amusement might be because they have focused too much on the deliberately created stimuli that reliably cause amusement. That is, they focused on the features and structure of humor and took one of the features, i.e. incongruity, to be a defining feature of the emotion of amusement itself. History is on their side because the idea that incongruity is essential to humor goes back a long way. As early as 1759, Alexander Gerard in his essay on taste claimed that we have a sense that produces laugher, mirth and amusement. The object of this sense, so Gerard, is incongruity (Gerard 1759, section 4). Not to forget the more well-known and influential forerunners of the so-called incongruity theory of humor, Schopenhauer (1988, 102) and Kant (2008, 154 f.), who both stress some form of incongruity in their analysis of laughter and amusement. Another source that I think has facilitated the inclusion of incongruity in the structure of amusement is the success of the linguistic analysis of humor. The influential semantic script theory of humor (Raskin 1985) and the socalled general theory of humor (Attardo & Raskin 1991) both focus on some form of incongruity that is said to be essential for jokes and other verbal humor.

In this section, I have presented the view of some authors that the formal object of amusement is incongruity. In the next section I will address the skepticism as to whether amusement even is an emotion.

3. Amusement as emotion

At this point, someone might raise his skepticism as to whether amusement is indeed an emotion. When amusement is not an emotion then, so the skeptic, then arguing over its formal object is pointless. I will now briefly respond to this skepticism.

There are intuitive parallels between paradigmatic emotions and amusement: Both come in degrees and we can suppress their behavioral manifestations. Further, like emotions amusement is subject to a certain measure of self-control and emotional contagion. Also, similar to emotions, amusement has a valence. Despite the similarities, some authors (e.g. Morreall (2009)) have denied that amusement is an emotion or have claimed that amusement is merely an emotion-like pleasure

candidates for the formal object of amusement. Salmela (2006) for example states, but does not argue, that the "formal property" of the emotion of amusement is the property of "being funny" (Salmela 2006, 393).

((Roberts 2003)). Others have argued in favor of the claim that it is an emotion (Sharpe 1975; Palencik 2007).

In this section, I will argue that in the light of plausible criteria that can be taken to be necessary for a type of mental episode to be a distinct emotion, amusement is an emotion. Following Cova and Deonna (2014), I will introduce here five conditions that all the instances of a mental episode need to fulfill in order to be a distinct emotion. First, all the instances have to be intentional states. Second, all the instances have to have the same formal object. Third, all the instances share the same distinct phenomenology. Fourth, all the instances are associated with the same type of action tendencies. Fifth, all the instances serve the same general function.

I think that the first and third criteria (intentionality and a distinct phenomenology) are not controversial when it comes to amusement. A state is intentional when it takes objects beyond itself or, in other words, is directed at something. In the case of emotions, their intentionality is usually expressed in phrases like "angry at" or "jealous of". Similarly, amusement is directed at particular things or events. The intentionality of amusement is usually expressed in phrases like "amused by". Switching to the distinct phenomenology now: All episodes of amusement have a similar and distinct phenomenology. In amusement you feel some bodily changes like the contortion of the face to a smile or full-fledged laughter. There is also the feeling of elation in amusement. Further, amusement is a pleasant experience.

The second condition states that instances of an emotion type will have different particular objects while the formal object remains the same. We can be angry, joyful or sad about different things that serve as the particular object of the emotion. But, whether you are angry with your partner, your dog or your anger is directed at your computer, the formal object remains the same. That is, in anger you will experience something *as offensive*. Likewise, whatever particular thing it is that you are afraid of, in fear you will experience something *as dangerous*. Another way to express the idea of a formal object is to say that emotions *apprehend* objects in a specific

¹³ Some authors use the term 'core relational theme' instead of 'formal object'. Prinz (2004) for example identifies formal objects with core relational themes. Here, I will stick to using the term 'formal object'.

¹⁴ The 5 criteria also allow us to distinguish between mood and emotion. Although moods share certain similarities with emotions (e.g. distinct phenomenology or general function) and it is not always easy to keep them apart in particular cases, there are important differences between moods and emotions: Moods are usually not tied to an intentional object and emotions are usually based on a specific stimulus. Further, moods usually last longer than episodes of emotions. Although not every author agrees that moods are non-intentional. Goldie (2002, ch. 6) for example claims that moods, like emotions, are always a "feeling towards an object" (p. 143).

evaluative light (I will say more on the idea of formal object in the next section). Now, different things can amuse us, which is to say that instances of the type amusement have different particular objects. Given that episodes of amusement have different objects it is sensible to assume that amusement has a formal object that is specific to it and in light of which amusement can be distinguished from other emotions. As I have shown in the introduction, some authors claim that the formal object of amusement is something like 'the incongruous'.

The fourth condition states that emotions have distinct action tendencies. What are action tendencies? According to Frijda (1986, 70) action tendencies are "[...] states of readiness to execute a given kind of action, [which] is defined by its end result aimed at or achieved". So, in the case of negative emotion of fear for example, the end state would be a state where one is has avoided the danger or where one mitigates the threat. Usually, either fleeing or attacking the object of fear achieves this goal. The action tendency of fear, so Frijda, is avoidance. Similarly, the action tendency of disgust is rejection. Shame would be another examples for an emotion with an action tendency to retreat from the situation.

In comparison to these emotions it has often been noted, for example by Roberts (2003, 308), that amusement lacks motivating force and does not trigger us to take action. Of course, this is not to deny that amusement lacks a unique physiological and behavioral profile. One of the outstanding features of amusement is laughter, after all. Further the bodily feelings that usually accompany amusement are also distinct and might be described as 'elation'. However, the lack of action tendencies should not lead one to conclude that amusement is not an emotion. Apart from general doubts whether emotions can be identified and distinguished from one another by action tendencies and mere behaviors (Roberts 2003, 168 ff.), it might be that the action tendencies for positive emotions are much harder to discern or more diffuse than the action tendencies for negative emotions. With its lack of discernible action-tendencies amusement is in good company because a lot of positive emotions do not seem to have distinctive action tendencies (Cova & Deonna 2014, 457). A possible explanation for this is that "[...] positive emotions do not occur in lifethreatening situations, and so presumably would not have been selected to promote such specific, necessary "action-tendencies" (Gervais & Wilson 2005, 408). This, of course does not mean that something that does not have clear action tendencies is not adaptive in some other way. Recently, it has been proposed that the effects of

some emotions, especially positive ones, are better characterized in terms of their cognitive effect instead of concentrating on action tendencies. In their investigation of the experience of 'being moved' Cova & Deonna (2014, 458) propose that although the emotion 'being moved' does not have clear action tendencies, it is better characterized by another possible effect. The experience of 'being moved' reorganizes our values and priorities and promotes positive core values because it focuses on the importance of positive core values that one has.

Similarly to the emotion of 'being moved' and other positive emotions, I suspect that amusement is also best characterized by its other effects and not by its action-tendencies. Empirical evidence seems to lend some preliminary support for the view that action-tendencies are the wrong angle at which to get at the effects of amusement: Fredrickson & Branigan (2005) used amusement to test the so-called broaden-and-built hypothesis according to which the function of positive emotions is not to be found in action tendencies but in that they broaden the scope of attention and broaden the thought-action repertoire. However, what exactly those effects of amusement are is subject to speculation. A possible candidate might be the fostering of a relaxed, friendly and inviting social atmosphere. Hurley, Adams and Dennett (2011) have introduced another possible candidate for the function that amusement. They argue that amusement was retained by evolution because the cognitive processing underlying it some form of cognitive maintenance in that improper commitments to beliefs are detected (Hurley, Adams & Dennett 2011).

To sum up this section: Based on plausible criteria for distinct emotions, there are good and ample reasons to conclude that amusement is an emotion. Now, if amusement is an emotion, then it has a formal object. In the next section, I will clarify in more detail what a formal object is and why it is important. I will also make the case that the most plausible candidate for the formal object of emotions is evaluative properties.

4. Formal objects and evaluative properties

I will not assume that every reader has a grasp on what a formal object is. To ameliorate this I will now briefly introduce the idea of a formal object of emotions and why formal objects are important.

In the section above, I have already hinted at the distinction between particular and formal object. Remember, emotions are intentional states that have particular objects. Femotion tokens of an emotion-kind can take a variety of particular objects. You can be afraid of snakes, bugs or sharks. Similarly, you can be ashamed of a great number of things. Now, people can fear a lot of things but for a mental episode to be a token of the emotion-type fear is to appraise (or apprehend) something as *dangerous*. The formal objects of emotions play an important part in individuation the emotion types. All the instances of a distinct emotion type have the same formal object (Deonna & Scherer 2010). Tokens of the emotion-type fear are supposed to have the same formal object; in the case of fear 'dangerousness'. The formal object also helps us to carve out the differences between emotions. As de Sousa puts this as follows: "Each emotion type is a unique species defined by its formal object" (de Sousa 1987, 126).

It is important to note here that emotions always depend on some other mental state or states. Usually these other mental states are perceptual states or a memory that is directed at the particular object. These other mental states are the source of the non-axiological information upon which emotions depend. De Sousa (1987, 122) expresses this idea by saying that the formal object of an emotion is a second-order property that is *supervenient* on other properties. Take fear as an example. Fear depends on some other mental states, like the perception of the shark's fin, which gives you the non-axiological property on which emotion depends. As Prinz has put it, emotions represent their formal object and *not* their particular object (Prinz 2004, 62). Consider the emotion of *sadness*. Sadness does not represent the death of a loved one. Instead the death is the particular object and sadness represents the *loss* of someone that we value. That is, loss is the formal object.

To the extent that emotions are representational they are able to misrepresent. We often say that an emotion is not accurate or correct. Fear apprehends something as dangerous but that does not mean that whenever we experience fear that the object is in fact dangerous. For example, consider the following: Fear of a tiny dog does not seem to fit the particular object, because the dog does not in fact poses a real danger. So, the formal object not only serves to distinguish types of emotions but it also provides the standard of appropriateness for the token emotion of each type. We say

¹⁵ However, not everyone is convinced that this is correct. Shargel (2015) for example defends the view that emotions lack particular objects.

that an emotion is appropriate when the particular object has the axiological property that the emotional evaluation ascribes to it. Another way of putting this is to say that the particular object has to *merit* being apprehended in a certain way by the emotional experience. The non-axiological properties justify the emotion. To give another and less familiar example of an emotion here: The emotion of annoyance can be fitting or not. It is sensible to say that annoyance represents its object as having failed to exemplify a certain quality or excellence that is expected of it by the person undergoing the emotion (Roberts 2014, 197). Hence, an episode of annoyance is fitting, when the target is a genuine transgressor. Further, there are episodes of inappropriate annoyance, as when we hold something or someone to an unreasonable high standard or when we have too high expectations. On the other hand, the lack of annoyance in certain situations reflects a standard that is unreasonably low (ibid., 202).

What is the most plausible candidate for a formal object of an emotion? There seems to be widespread agreement that emotions have an intimate link to values (Roeser & Todd 2014; Teroni 2007, 396, 409; Montague 2009): First, we can unify and distinguish emotion types by means of the distinct values to which they relate. Second, the appeal to value makes it possible decide whether or not emotions are intelligible. That is, different situations elicit the same emotion (type) in virtue of exemplifying the same evaluative property. Third, values are essential for assessing the appropriateness of emotions. An emotion is inappropriate when the situation is such that it does not exemplify the value(s) that are relevant. So, as I have introduced above, fear is not appropriate when the object is not dangerous. Similarly, sadness is not appropriate when the situation does not involve a loss. 16 Emotions represent (at least in part) evaluative properties¹⁷ (Montague 2009, 174; 175). In other words, emotions apprehend their particular objects in a certain way. That is to say, an emotional response to some state of affair is an evaluation of this state of affairs.¹⁸ So, from here on I will assume the formal object of an emotion is an evaluative property.

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 $^{^{16}}$ Keep in mind that the connection between emotions and a particular value does not have to be transparent for the subject.

¹⁷ Some authors prefer to use the term 'value property' (e.g. Mulligan 1998) but I will continue to use the term .evaluative property'.

¹⁸ Some authors have claimed that emotions are evaluative judgments (Solomon 2007; Nussbaum 2004). For the purpose of the paper, I do not need to take a principled stance on that issue here.

After having elaborated a little more on formal objects and their relation to evaluative properties, in the next section I will present some indications that something is not quite right with the idea that the formal object of amusement is incongruity (or the incongruous).

5. Indications

Being aware of an emotion usually makes us aware of its evaluative dimension. Consider, again, the example of experiencing fear: Being aware of your fear makes you aware that you are confronted with something dangerous. Take sadness as another example: Being aware of your sadness makes you aware that you suffer from a loss of something that you value. In contrast, being aware of your amusement does not make you aware of some incongruity. This is evidenced by the fact that people often are amused but cannot readily explain why that is or point to the incongruity in question. Further, connected to the first point, there seems to be a close connection between emotions and evaluative judgments. Take the example of fear. When I am afraid of something people usually judge that the situation or the object is a threat and when I am angry at someone I will, when asked, express in some way the evaluative judgment that the person has offended me. However, it is usually not the case that when we are amused and asked why that we make the evaluative judgment that something is incongruous.

Another indication that there is something amiss with the idea that the formal object of amusement is incongruity has to do with the valence of emotions. The pleasant or unpleasant character of emotions (i.e. their valence) is supposedly linked to their formal object. Danger is (usually) something negative and fear is unpleasant. Offence is something negative and anger is unpleasant. The exposure of some personal aspect that one does not want to be exposed is something negative and embarrassment is unpleasant. So it seems that the formal object of an emotion is somehow parallel to the valence of that emotion. Now, we would expect amusement, which is a pleasant emotion, to have a formal object that is positively valenced. However, I fail to see how incongruity (or the incongruous) in itself has a certain valence, that means is either positive or negative. Further, some authors state that incongruity is something that is unpleasant or negative (e.g. Santayana 1988, 155).

Assuming that this is correct, it is curious why amusement should be a pleasant emotion when its formal object is negative.

I submit that the points above should make us weary of the idea that incongruity is the formal object of amusement. However, they do not constitute a decisive reason to dismiss this idea. In the next section I will give an argument to the effect that the formal object of amusement is not incongruity because incongruity is not an evaluative property.

6. Incongruity is not an evaluative property

When something is an emotion, then its formal object is an evaluative property. I have introduced reasons to believe that amusement is an emotion. It follows, not controversially, that the formal object of amusement is an evaluative property. Now, if incongruity really is the formal object of amusement, as some authors claim, then incongruity is an evaluative property. However, I will show that incongruity is not an evaluative property. Hence, incongruity is not the formal object of amusement.

I shall briefly elaborate a little on the somewhat vague concept of incongruity: Let me begin by pointing out that quite often, it is not clear which meaning an author has in mind when she uses the concept. Obviously, a lot of things can be incongruous. For example, in geometry two shapes are said to be incongruous when they do not have the same shape and size. The so-called incongruity theory of humor holds that some incongruity is causally responsible for amusement. So, for example, it has been suggested that categories can be incongruous to one another (Oring 2003) and Carroll states that incongruities are "deviations, disturbances or problematizations of our concepts, rules, laws of logic and reasoning, stereotypes, norms of morality, of prudence, and of, etiquette, contradictory points of view presented in tandem, and, in general, subversions of our commonplace expectations [...]" ((Carroll 2014, 27)). There seems to be a lack of precision regarding the notion of 'incongruity', which is why some authors (e.g. Latta (1998, ch. 7); Scruton (1982)) have called for a clarification and some others have raised doubts regarding the explanatory power of this notion (Warren, McGraw 2016). However, I think it is possible to give a tentative

¹⁹ The classic rendering of the idea of incongruity regarding amusement comes from Schopenhauer (1988, 102 f.), who said that an incongruity can consist between perception and concept. According to him, the cause of laughter in very case is the sudden perception of an incongruity between concepts regarding an object and the real object itself.

and *minimal* characterization of incongruity. Whatever else is true of incongruity, I think the following four things are true about incongruity: (1) Incongruity is a *relational* property: Incongruity always pertains to two or more things. Something cannot be incongruous *per se*. It does *not* make sense to say of A "A is incongruous". Further, and related to the first point, (2) To say that A and B are incongruous is the outcome of a comparison of some sort: To say that A and B are incongruous is to compare A and B. (3) To say that A and B are incongruous means that they are incongruous in a certain way; pertaining to one or more features. (4) The assessment that there is an incongruity is the result of a cognitive process (or a cluster of processes). After this short detour, I will now argue that incongruity or the 'incongruous' is not an evaluative property and therefore it is not the formal object of the emotion of amusement. In order to show that 'incongruity' (or 'being incongruous') is not an evaluative property, I shall rehearse some answers to the question of what evaluations and evaluative properties are.

What are evaluations? Väyrynen (2012, 239) states that an evaluation is "somehow positive or negative in flavor" and gives a helpful characterization of it: "I'll understand evaluation as information to the effect that something has (or lacks) merit, worth, or significance (that is, has a positive or a negative standing) relative to a certain kind of standard, namely a standard that grounds claims of merit, worth, or significance" (239 f.). So, to say that "A is bigger than B" does not express an evaluation because it is not 'positive or negative in flavor', as Väyrynen puts it. In contrast, to say "A acted cowardly" expresses an evaluation, because it expresses that the act lacks worth or has a negative standing. Oftentimes, evaluations are characterized in terms of so called *thin concepts*. Mulligan (1998, 162) for example proposes that evaluations are "[...] truth-bearers or predications which are contingently true or false and which employ a thin evaluative predicate such as "good," "bad," "worse than," "better than" or any of the numerous predicates the applicability of which entails, other things being equal, that one of the thin axiological predicates applies [...]". It is crucial here to elaborate a little more on the distinction between thick and thin concepts.

Dating back to Williams (1985), the difference between thick and thin concept is usually cashed out as follows: Thick concepts comprise of evaluative and non-evaluative (descriptive) components, whereas thin concepts are said to be purely

evaluative or at least not descriptive in any substantial way²⁰ (e.g. Blackburn 1998; Roberts 2013; Tappolet 2015). Here are some examples: The predicates 'honest' and 'cowardly' express thick evaluative concepts, while 'good', 'bad' or 'wrong' express thin evaluative concepts. Thick concepts are more descriptive than thin concepts but both are evaluative. However, it may not be possible to make a clear-cut distinction between thick and thin concepts in all cases so that the issue is best considered as a matter of degree and not kind (Scheffler 1987). Please note that thick and thin concepts are not limited to the moral dimension because there are also epistemic or aesthetic thick concepts. For example, the linguistic expressions 'beautiful' and 'elegant' express thick aesthetic concepts. Further, apart from thick and thin concepts there are also purely *descriptive concepts*. Examples here are concepts expressed by terms such as 'blue', 'banana' or 'small'.²¹

What's the relation between thick and thin concepts? In the quote above, Mulligan indicates that thick concepts entail thin concepts. Kyle (2013, 2) expresses this idea as follows: "Many thick concepts (if not all) conceptually entail the contents expressed by thin terms". This claim is highly sensible because it explains some curiosities regarding evaluations. For example, the claim "Sancho Pansa is cowardly but he is not bad in any way" is a very peculiar statement. Further, the statement "Sancho Pansa is cowardly and he is also bad in a way" sounds redundant. The best explanation for these peculiarities is that thick terms, for example 'cowardly', conceptually entail the concepts good in a way or bad in a way (see Kyle 2013). Thick terms entail thin concepts. Corresponding to thick and thin evaluations, it is common to distinguish between thin values and thick values22 (or thick and thin evaluative properties). Examples for thin values are good /bad, right/ wrong, agreeableness/ disagreeableness, whereas thick values are such things as courageous, elegant or useful. What makes some values thick is that they have more content than thin values in the sense that they combine evaluative and nonevaluative aspects. Now, if the entailment view is correct, then thick values entail

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²⁰ However, some authors deny that thick concepts can be split into these two components (see Elstein & Hurka 2009).

²¹ Please note that there is a difference between *using* a term in an evaluative fashion and this term being evaluative in its *meaning*. That is, there are certain contexts where we can use a non-evaluative term in an evaluative way, although the term does not have an evaluative meaning. So, for example, when I give the reason for not wanting to buy a particular backpack by saying "This backpack is too colorful", I am using the non-evaluative term 'colorful' in a an evaluative way. Some non-evaluative terms and concepts are often or primarily used in evaluative contexts and situations can carry what might be called 'evaluative connotations' (see Väyrynen 2012, footnote nr. 48).

 $^{^{\}rm 22}$ For a critique of the thin/ thick distinction see (Tappolet 2005).

thin values. For example, when something has the thick value of *being courageous*, then it has the thin value of *being good* and when something has the thick value of *being cowardly* then it has the thin value of *being bad*, or, as Kyle (2013) would have it, 'being bad in a way'.

In a previous section of the paper I have made plausible the idea that emotions have formal objects and that formal objects are evaluative properties. It goes without saying that the formal objects of emotions are not picked out by predicates that express thin concepts. The evaluative properties of emotions (and therefore their formal objects) are picked out predicates that express thick concepts. Consider the emotions of anger and fear again. The formal object of fear is picked out by the predicates 'dangerous' and the formal object of anger is picked out by the predicate 'offensive', both of which express thick concepts. Similarly, the formal object of amusement, if it is an emotion, is picked out by a predicate that expresses a thick concept accordingly. That means, if *incongruity* is an evaluative property, then it has to be picked out by a thick term. Remember that thick terms entail thin concepts. Now, *incongruity* is not a thick evaluative property because saying that something is incongruous does not entail a thin concept. This is supported by the fact that we cannot construct linguistic peculiarities as introduced above based on Kyle (2013). That is, it is not odd to say something like "A is incongruous and A is not good (or bad) in any way" or "A and B are incongruous but this is good/ or bad". To claim that something is incongruous does not entail that it is *good in a way* or *bad in a way*. To say that "A and B are incongruous (in a certain way)" is not in itself to commend or to praise that this is so, nor is it a criticism. I take this to be indicative of the fact that incongruity is not a thick evaluative property. The relation of incongruity between A and B is compatible with all valences. It can either be good, bad or neutral, depending on the context and other external factors. It seems then that incongruity is a descriptive property like red, round or small. Being incongruous seems to be like the property being tidy. As Tappolet (2005, 209) notes, being tidy does not entail that it is good. Rather, in some of its uses the term 'tidy' is used in a positive sense. Similarly, in some contexts the term 'incongruity' is used in a positive sense in other contexts it is used in a negative sense.

One might object here that a property can be both a descriptive property and an evaluative property. For example, the property of *being sharp* is always a virtue in a carving knife and the property of *being fast* is always a virtue in a professional

runner. At the same time, being sharp and being fast are also descriptive properties of the knife and the runner, respectively. That is so, because a carving knife and a professional runner are so called goodness-fixing kinds. Briefly, a goodness-fixing kind is a kind K for which there is a property of being good qua K (Thomson 2008, 21 ff.). Goodness-fixing kinds set the standards that a token of K has to meet in order to be good qua K. That is, in order to be good qua carving knife and good qua professional runner, the token has to be sharp and fast, respectively. That yields that a property can be at the same time a descriptive property and an evaluative property. Alas, I cannot come up with any goodness-fixing kind K so that a token of that kind has to have the property of *incongruity* in order to be good qua K. This of course does not mean that a particular incongruity cannot be good or bad in certain contexts or circumstances. For example, it might be an artistic virtue in some piece of art to feature an incongruity of some sort. However, *incongruity* itself in such cases is not an evaluative property.

Please note, that my argument from evaluative properties may also pertain to other emotions besides amusement. That is, we might have to rethink some familiar ascriptions of formal objects to emotions. For example, it is common to say that the formal object of surprise is the property of *being unexpected* (e.g. Brun & Kuenzle 2016, p. 12). However, if what I have said about evaluative properties is correct then *unexpected* is not an evaluative property because saying something like "This visit was unexpected" does not entail a thin concept. That something is unexpected can be either positive or negative, as is attested by the existence of the different valences that surprise can have. We experience positive surprise at a surprise party and we can experience negative surprise at the discovery of a burglar in our house.²³ This suggests that we have to reconsider the assumption that the formal object of surprise is the property of *being unexpected*.

In summary: If something is an emotion, then its formal object is an evaluative property. In a previous section, I have defended the view that amusement is an emotion and therefore its formal object is an evaluative property. Now, if the formal object of amusement is picked out by the predicate 'incongruity' then it expresses an evaluative property. In this section I have given an argument to the effect that incongruity is *not* an evaluative property. 'Incongruity' does not entail a thin concept.

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²³ For more on the emotion of surprise see Morton (2014). I am not the first to notice that surprise comes in two flavors. Ortony, Clore & Collins (1999) for example also distinguish between positive and negative surprise (that they call 'shock').

It follows that *incongruity* is not an evaluative concept and *incongruity* (or *incongruous*) are not evaluative properties. If this is correct, then incongruity is *not* the formal object of amusement.

In the next section, I will present a second argument for the claim that incongruity is not the formal object of amusement. This argument is somewhat independent from the argument presented in this section.

7. Argument from appropriateness

Considering the issue of appropriateness also sheds serious doubt on the tenability of the claim that the formal object of amusement is incongruity. Earlier, I have introduced the idea that the formal object provides the standard of appropriateness for the token emotion of each type. The formal object is a feature by which we evaluate the appropriateness of the emotion (Cova & Deonna 2014, 450). So, if incongruity is the formal object of amusement, then incongruity is the feature by which we evaluate the appropriateness²⁴ of the emotion of amusement. For the sake of the argument, I will proceed with the assumption that incongruity is in fact the formal object (in that it is an evaluative property) of amusement.

We treat some emotional episodes as appropriate whereas we treat other emotional episodes as inappropriate. When questioned, people usually can provide reasons for their emotions. We may ask things like, "Why are you angry?" or "Why are you sad?". People usually answer something like "I am angry because she interrupted my talk" or "I am sad because my pet turtle died". Often, the explanation is taken to be a justification of the emotion (Jordan & Partridge 2012, 84). Now, emotions are justified by non-axiological reasons (Teroni 2007, 411). We would not be satisfied, when the person would simply say "I am angry because this particular state of affairs has elicited the response of anger". The interruption and the death are non-axiological properties. Another way of expressing this idea is to say that emotions are appropriate (or justified) when the non-axiological properties *merit* the

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²⁴ I will be silent about the moral appropriateness of amusement and I do not wish to take a principled stance here on whether amusement is a moral emotion. Amusement is not obviously a moral emotion. D'Arms and Jacobson (2000) claim that amusement 'lacks moral shape'. That is, amusement does not entail a moral assessment of the object. Recently, Sauer has claimed that amusement is not a moral emotion, because "amusement does not represent its object as being either moral or immoral" (Sauer 2011, 131). Some authors, however, have defended the claim that amusement has a moral shape (although it might not be a full-fledged moral emotion), because in some cases moral considerations about amusement are relevant for determining whether the emotion of amusement fits its object (Jordan & Partridge 2012).

particular emotional evaluation. To stay with the examples: The interruption and the death merit the apprehension of the situation as offensive and a loss, which are the formal objects of anger and sadness, respectively.

It is an uncontroversial observation that we also demand and give explanations and justifications for amusement. Consider what Jordan and Partridge (2012, 84) say about joke telling:

"Similarly, our practice of joke telling relies to some extent on the practice of giving and taking of reasons. This suggests that amusement, an affective attitude that involves to varying degrees a mobilization of our imagination, is also a normative affair. Consider a joke that you find very funny, though your friend does not. Rather than shrugging her shoulders, your friend might ask you exactly what it is that amuses you. While in some cases she might be asking you for an explanation of your amusement, she might also reasonably be asking you to point out the relevant features that make amusement appropriate in this context".

By analogy to other emotions the picture looks something like this: For amusement, with the alleged formal object (i.e. evaluative property) of incongruity to be appropriate, one needs to point to non-axiological features that merit apprehending the situation (or event) as incongruous. That in turn means that one cannot point to incongruity as a non-axiological feature because incongruity is an axiological property. It would not be proper to say that amusement is appropriate because some incongruity justifies apprehending the object as incongruous, where in the former incongruity is taken to be non-evaluative and in the latter it is taken to be evaluative. When incongruity is an axiological property (as assumed in this section for the sake of the argument), then it cannot be part of the non-axiological reasons that justify amusement. But note that the conflation of the non-axiological and axiological looms in the background when one takes incongruity to be the formal object of amusement. I will demonstrate this by coming back to one of the authors who favors the incongruity view. Remember that Carroll states the following: "[the] perceived incongruity is the *primary object* of the mental state of comic amusement; one is in a state of comic amusement *only* if the object of that state is a perceived incongruity." (Carroll 2014, 27). What does "primary object" mean here? Consider that he also speaks of "[...] stimuli that support our amusement in response to their display of the property of incongruity (or incongruous properties)" (ibid.). It seems that Carroll here indicates that the property of incongruity is the non-axiological basis of amusement. If this were correct then both the particular and the formal object of amusement is 'the incongruous'. However, formal object and particular object in emotions are not identical. The emotion of fear is *not* appraising a danger (particular object) as dangerous (formal object), and the emotion of anger is not appraising an offense as offensive. If formal object and particular object were identical then every emotion would always be appropriate (or correct). Yet, we know that this is not true because emotions can be inappropriate. Further, assuming that they are identical we would also loose the world-directedness of the emotions. I do not see any reason do believe that amusement is different from any other emotion in this regard. So, it seems that Carroll's view that incongruity is the formal object of amusement is incompatible with his own understanding of the non-axiological components of the emotion of amusement. Now, when incongruity is a non-axiological property, which I have given reasons to believe it is in the last section, then there is no problem with incongruity featuring in the non-axiological basis of amusement. This in turn means that incongruity is not the formal object of amusement.

Now, I want to give a short second argument to the effect that there is something amiss about the picture that incongruity is the formal object of amusement. Assuming, for the sake of the argument, that the formal object of amusement is indeed incongruity, then to say that amusement is *not* appropriate means saying that the non-evaluative properties of a situation (or event) do *not* merit the apprehension of it as incongruous. However, I want to propose that it is *not* correct that saying that amusement is inappropriate is saying that the person is not justified in apprehending it as incongruous. Hence, the claim that the formal object of amusement is incongruity is *not* correct either.

Why is it not correct that to say that amusement is *not* appropriate means saying that the non-evaluative properties of a situation (or event) do *not* merit the apprehension of it as incongruous? Because in situations in which we are inclined to say that amusement is not appropriate we usually do not deny that there is an incongruity involved. In other words, we acknowledge that there is an incongruity but we still deny that amusement is appropriate. Consider this: It is common to 'get' a joke and point to the incongruity that it exemplifies while at the same time judging amusement to be inappropriate. There is an intuitive distinction between humor recognition and humor appreciation (see e.g. Roberts 2017). That is, you might

recognize something as humorous, which is to say featuring an incongruity, but you still maintain that the piece of humor in question should not elicit humor appreciation, that is amusement. Another way of putting this is to say that there are situations where the non-axiological features merit the judgment that there is an incongruity but at the same time we judge that amusement is not inappropriate.

To sum up this section, it is not correct to say that amusement is inappropriate because the situation (or event or object) does *not* exemplify an incongruity, because paradigmatic situations of humor usually do involve an incongruity that yields amusement. Assuming that the formal object of amusement is incongruity creates problems that could be avoided by dropping this assumption.

Just to be clear, I do not wish to insinuate here that the idea of incongruities should be completely ignored, nor am I denying that incongruity can play a part in the explanation of humor and amusement. I just think that the proper place for incongruity in a characterization of amusement is in the sphere of non-axiological properties of the object (event, or situation). Remember, emotions, in contrast to moods, require a cognitive basis. This basis might be a perception, a memory, or a belief. Emotions are grounded in the presentation of non-axiological information (Teroni 2007, 408; 412) or as de Sousa (1987, 122) has put it, the formal object of emotions is a second-order property in that evaluative property is supervenient on other non-evaluative properties. So, given that incongruity is not an evaluative property, the property of 'being incongruous' might be the non-evaluative property on which the formal object of amusement supervenes. I think it is sensible, given the intuitive appeal and stark focus of humor scholars on incongruity, to say that a viable candidate for the cognitive basis is the detection of an incongruity (sometimes also called 'perception of incongruity'). After all, most humor instantiates some form of incongruity or other and comedians and comic writers deliberately come up with some incongruity. The idea then, is roughly this: Maybe a situation or event is more reliably to cause amusement when it instantiates the non-evaluative property of incongruity. But from that it does not follow that incongruity plays any other role the emotion apart from the fact that some (but not all) episodes of amusement are grounded in the presentation of the non-axiological property of incongruity. Thus, I readily admit that incongruity is important in giving a complete account of what may be called 'comic amusement' and humor, but it is still not the formal object of this emotion.

So maybe incongruity is the particular object of amusement? I do not think that incongruity is a plausible candidate for the particular object either. Consider the analogy to other emotions: We would not want to claim that emotions are directed at their cognitive basis. For example, anger is not directed at some perception or memory of an action or event. Instead, the anger is directed at the action or event itself or at the person that has perpetrated the offence. The same goes for surprise: We do not say that surprise has the particular object of 'the unexpected'. Rather we say that we are surprised about an event. Given that some parity should apply in considering such matters, I see no reason to assume that amusement is directed at some incongruity and not at a person or event.

8. Conclusion

According to a prominent view, the formal object of amusement is *incongruity* (or the *incongruous*). The aim of this paper has been to assess this view. The result is that this view is not tenable. Amusement is an emotion and as such its formal object is an evaluative property. I have presented an argument to the effect that *incongruity* is not the formal object of amusement, because *incongruity* is not an evaluative property. Further, I have shown that assuming that incongruity is the formal object of amusement creates problems when we want to account for the appropriateness of emotions, because *incongruity* cannot figure in the axiological and non-axiological features at the same time.

It seems then that one cannot maintain both that amusement is an emotion (and therefore evaluative) and that the formal object of amusement is *incongruity* (or the *incongruous*). Since giving up the former claim is not a very attractive move and in the light of the criticism raised in this paper, the view that the formal object of amusement is *incongruity* should be given up.

Chapter Three

The last two chapters dealt with the notion of 'perception of incongruity' and the

problem of the formal object of the emotion of amusement. In this chapter, I will

shift the focus to another topic that has received a lot of attention in the literature:

The relation between morality and humor. More specifically, in the paper of this

chapter I will focus on a particular issue regarding morality and humor, namely

comic immoralism. At the core of comic immoralism is the claim that moral flaws

can enhance amusement. This claim has recently come under attack by Smuts (2013)

who claims that the comic immoralist must show that a humor token can be funny

because and not despite a moral flaw. I will examine Smuts's challenge and then

proceed to criticize two recent accounts defending comic immoralism offered by

Woodcock (2015) and Nanicelli (2014). The paper also includes an account that is

better suited to tackle the immoralist challenge introduced by Smuts. Based on the

view that amusement is a compound mental state, I will present an explanation of

how moral flaws causally contribute to amusement.

Two souls alas! are dwelling in my breast - Amusement, pleasure and

comic immoralism

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1. Introduction

The question that I want to explore in this paper is whether moral flaws can enhance

amusement. I will answer in the affirmative and give an account to the effect that in

some cases moral flaws can enhance amusement. The position that holds that moral

flaws can actually enhance amusement is known as comic immoralism. I will begin

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by introducing the challenge that comic immoralist faces. It has been contested that the burden of proof is on the comic immoralist to show how a genuine moral flaw could possibly contribute to amusement. What we want from an account of comic immoralism, so the critics, is an explanation of why a humor token (e.g. a joke) can be amusing *because* it is immoral, not *despite* its immorality. The immorality must play a *causal* role for the amusement of the subject. I will take up this challenge and show that such an account can be given.²⁵

The defense of comic immoralism that I will put forward is based on a particular view regarding the structure of amusement that holds that amusement is a *compound* state comprising of, among other things, pleasure. I claim that to the extent that immorality can bring about or enhance pleasure, immorality can enhance the pleasure of amusement.

I will proceed as follows: First, I will present a recent case against immoralism and critically examine it. I will also highlight what I think this account gets right regarding comic immoralism and the challenge that comic immoralism needs to meet. Second, I will examine two recent attempts to defend comic immoralism and show that they do not meet the aforementioned challenge. Third, I show how comic immoralism can meet the challenge. I will conclude the paper with a summary and some advantages of the account that I present here.

Some brief comments on the scope and the focus of the paper. I will limit my investigation mostly to the mini-fictions of jokes. Further, I will not deal with the question whether the moral value of a work impinges on the aesthetic value. Questions like this have already been treated extensively by a lot of authors (e.g. Schmalzried 2014). What I am concerned here is, whether immorality can contribute to the experience of amusement. In this regard, one may wish to further distinguish between two kinds of questions regarding morality and amusement: Empirical and philosophical questions. The empirical question concerns whether and what effects certain humorous material has on the audience; effects that might be morally positive or negative. The empirical question can be answered anecdotally or via empirical evidence. There are already a lot of studies investigating the effects of

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²⁵ To avoid confusion, one thing that needs to be clarified is what I mean by 'cause': Like Smuts, I am after the factors that contribute to amusement and not the reasons that rationalize why a token is funny. Smuts writes in footnote 11: "I am concerned with causes for amusement, not normative reasons to think a joke is funny. The reasons are clear, but the causes are not. Much of the literature in the art and morality debate suffers from this confusion." (Smuts 2013, 62). Regarding affective attitudes, causes can be different from reasons. There are causes but there are also contributory reasons for amusement (see for example Jordan, Partridge, 2012).

humor on the audience. 26 The philosophical question concerns the conceptual connection between immorality and amusement. It is this philosophical question that interests me in this paper. Specifically, whether it is sensible to say that immorality impinges positively on amusement. Although I will defend the view that it is philosophically feasible to think that immorality can enhance amusement, I am not here prescribing that people should or should not be amused by immorality.

To avoid confusion, this is how I will understand the terms "moral", "immoral", "moral transgression" and "moral flaws": Unless indicated otherwise, when I use the term "moral" here, I want it to mean what people usually mean when they use the word. Usually people mean something along the lines of what a person holds to be right or wrong, good or bad. So, something can be said to be immoral, a moral flaw or a moral violation (or transgression or flaw; I will use the two terms interchangeably), when it goes against what the person considers to be right and wrong in this situation. This notion of morality captures the subjective dimension, given that moral motives, moral sentiments, and an understanding of duties and obligations can differ from person to person. Accordingly, a moral transgression occurs when something (an act or event) is judged negatively because it is not in line with or deviates from what the person considers to be good or right. This very act or event might be due to the person's own making or through others. Another way to cash in the notion of morality here is in terms of a moral standard of excellence. Something is considered morally flawed when it is not according to some moral standard of excellence. That is, the situation or an act deviates from the way it is supposed to be. These standards are subjective, of course. Something can be morally flawed for me but it might be perfectly fine for somebody else. What's more, moral transgression comes in degrees and depends on the context. Some moral violations are also more severe than others. This will become important later in the discussion, when I turn to the relation of pleasure and moral violations. I think it is quite clear that whether an event is a moral transgression depend on the context. Something might be a transgression in one context but it may not be a transgression in another context. Making a derogatory remark about people with darker skin tone is not considered to be a transgression amongst members of a Ku Klux Klan group. However, making the same remark is considered to be a moral transgression by nonracists. Context and situational factors also influence the degree of severity with

²⁶ On the effect of disparagement humor see Ford, Richardson, Petit (2015).

which people evaluate the severity of moral transgressions. For example, people feel less guilty about their own moral transgressions after they have washed their hands (Xu, et al., 2014).

Please also note that I am not subscribing to any particular moral theory here, nor do I have to. My question concerns the issue of whether moral flaws can enhance amusement. What I have to say about the connection between moral flaws and amusement might be feasible under competing moral theories.

2. The challenge for comic immoralism

Comic immoralism is the thesis that moral flaws contribute to the amusement about a humor token,²⁷ for example a joke. It is common to distinguish two forms of comic immoralism. The strong version of comic immoralism holds that immoral features always make the humor token more amusing. I think that the strong version of comic immoralism is untenable. What is usually referred to when authors talk about comic immoralism is a weak or moderate form of comic immoralism that claims that immorality sometimes enhances amusement.

Although morally dubious jokes that are amusing are readily available, I will nevertheless here mention some items that I think qualify as immoral. Giving examples in this context is helpful but also delicate because of the charge that I thereby perpetuate stereotypes or disparaging attitudes. However, here I am not telling the jokes, but merely mentioning them:

- 'How do you save a black man from drowning? Take your foot off his head'28
- 'How did a passer-by stop a group of black men from committing gang rape? He threw them a basketball.'29
- 'Why does the Russian always steals two cars in Germany? Because on his way back he needs to go through Poland.'30

Given the relative pervasiveness of these kinds of jokes, it is tempting to think that immorality must play an important role here. But of course, intuitive appeal is not

²⁷ It is important to distinguish between humor types and humor tokes, such as a particular joke. Only the latter is subject to moral scrutiny (Carroll 2014, 243).

²⁸ I take this joke from Woodcock (2014, 10).

²⁹ I take this joke from Cohen (2001, 77).

 $^{^{\}rm 30}$ I take this example from Schmalzried (2014, 313).

enough to establish this point and details matter here, which is why comic immoralism has come under philosophical attack. In what follows I will briefly explore a recent attack against comic immoralism that has been put forward by Smuts (2013). I will point to what he gets right and carve out flaws in his argument.

2.1. The case against comic immoralism

In a recent paper, Smuts (2013) presents a challenge to anybody who wants to put forth some version of comic immoralism. What the immoralist must show, according to Smuts, is that something is amusing because of the moral flaw, not simply despite it. By contrast, the position of comic ethicism for example holds that sometimes immorality does not block amusement entirely. Although immorality always subtracts, according to ethicists, humorous token may exhibit other elements, such as wit, that contribute to amusement. The immoral elements may diminish amusement but the humorous token may have other features that compensate for this effect (Carroll 2014, 245). However, this is not what Smuts is after in his challenge directed at the comic immoralist. According to Smuts, the immoralist account must meet two conditions: First, the subject that experiences amusement must recognize the moral flaw. It is not enough that it is a moral flaw for some other people (I will come back to this issue when I discuss a current attempt to defend comic immoralism). Second, the moral flaw must play a causal role in increasing amusement.³¹ It is not sufficient to show that, although amusing, the subject judges the joke to be morally flawed. What the immoralist needs to show is that it is amusing because it is morally flawed (see also Smuts 2009).

These two conditions are sensible but I want to put forward a third requirement that the comic immoralist must meet that can be reconstructed from Smuts's text. Smuts accuses the immoralist of being guilty of not distinguishing between material that is *genuinely* immoral and material that merely features immorality. Something that merely features something immoral, like a newspaper article describing some torture scene, is not itself immoral (Further, recall the mention-use distinction from my example jokes above). Comic immoralism must deal with material that is

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³¹ Smuts in his own words: "For a moral flaw to be relevant to how funny we find a joke, we need to show that it plays something akin to a causal role in increasing or decreasing amusement. The defender of immoralism needs to show that moral flaws can play a prominent role in any adequate account of why an attempt at humor is funny. Unless we can show that an attempt at humor benefits because it is ethically flawed, we have no reason to think that its ethical flaws contribute to our amusement." (Smuts 2013, 48).

genuinely morally flawed, not material that merely represents immoral things. Smuts's own example of a genuinely immoral joke is a racist joke told by a racist KKK member.

Now, Smuts argues that the immoralist has no convincing causal explanation for the way a person can be amused by a perceived immorality. For Smuts, the immoralist lacks a plausible account of how moral flaws can contribute to amusement, while the comic moralist, who holds that moral flaws detract from amusement, can easily explain why moral blemishes sometimes decrease amusement. Accordingly, Smuts favors an account of the relation between morality and amusement that he coins symmetric comic moralism. This is the claim that moral flaws detract from amusement and that moral virtues can enhance it. He argues that a genuine moral flaw that is recognized by the subject is antithetical to amusement. The problem for the comic immoralist, says Smuts, is that "the perception of genuine moral flaw in an attempt at humor is decidedly not conductive to amusement" (Smuts 2013, 53). His argument against comic immoralism can be reconstructed as follows: Moral flaws (recognized, that is) arouse moral disgust. Moral disgust inhibits amusement. To the extent that immoral jokes raise moral disgust in the listener or reader, this disgust trumps amusement. In the next section, I will point out some problems of Smuts's argument.

2.2. Critique and shortcomings of Smuts's argument

Let me begin with some minor weaknesses of Smuts's account. He says that the comic immoralist does not really have an account of how the mechanism, that connects the recognition moral flaws to amusement, is supposed to work (Smuts 2009, 151). Alas, he does not propose a mechanism for his symmetric comic moralism either. I think it is only fair that the comic moralist should also be asked to present a mechanism that explains why a genuine moral flaw cancels out amusement. What Smuts presents, however, is a correlation between *moral disgust* and inhibited amusement. Further, this correlation is anecdotal because he does not cite any empirical findings on that matter. This is unfortunate because the connection between disgust and inhibited emotions (I take amusement to be an emotion) is not as straightforward as he makes it seem. We can look at empirical evidence that suggests that disgusting scenes elicit mixed feelings of amusement and

disgust (Hemenover & Schimmack, 2007). So disgust and amusement do not inevitably cancel each other out. I will come back to this issue later.

A related problem concerns Smuts's claim that moral virtues can enhance amusement. He does not give a satisfying account that explains how the virtuous features of a joke enhance amusement. According to Smuts, in some cases the moral virtue helps us to recognize the butt of the joke, hence he concludes that the joke is funny partly because of its moral virtue. I think it is not so clear how the detection of the virtue plays any obvious causal role in the production of humor. It may as well be that the joke is amusing independent of the moral virtue or that the moral condemnation that is triggered by a joke is responsible for our identification of the butt of the joke and that we judge a joke to be virtuous only after finding it amusing. To be clear here: Just because Smuts himself does not present a mechanism it does not invalidate his critique that the comic immoralist lacks a plausible mechanism. The charge is serious and should be addressed by any defense of comic immoralism.

Another shortcoming of Smuts's account is that it is not clear whether we are morally disgusted by the joke itself or by the person who tells the joke. Although the moral evaluation of a joke depends on many factors (content and context in particular), it seems to especially depend on the intentions and motivations of the person telling it (Carroll 2014, 243). A disparaging joke told by a known anti-Semite or racist is not funny to most people. But the same joke token can be funny when a member of the stereotyped group tells it, because we know that she does not have any malicious intentions. So maybe the moral disgust directed at the person who tells the joke spills over to the joke itself. We might suspect that the malicious joke teller wants us to endorse his demeaning attitude or the stereotypes that the joke rides on. But this is not a *genuine moral flaw* pertaining to the joke. I submit that it is not entirely clear how the notion of a "genuine moral flaw" can be cashed in here.

Before I proceed, let me present and dispel another objection: One may protest that the talk of moral disgust is merely metaphorical and that the term "disgust" should be reserved for sensory disgust related to food or bodily fluids. So one may want to dismiss Smuts's argument on the ground that he is guilty of conflating sensory disgust with some other moral reaction, like strong resentment. That is, while it may be correct that *sensory disgust* can cancel out certain emotions, it may not be correct to say that *moral disgust* does the same because there is no such thing as moral disgust. This objection, however, does not have any traction because it

appears that the talk about moral disgust is not merely metaphorical. Reviewing neurological evidence, Kelly (2011) claims that the data can be successfully interpreted in favor of the so-called co-opt thesis that holds that talk about moral disgust is not just metaphorical but that "[...] the pattern of evidence shows a single psychological system, disgust, working, in conjunction with different cognitive systems [...]" and that the disgust system is a "[...] unified system that is re-deployed multiple times, in multiple domains [...]"(Kelly 2011, 131). Moral disgust really is disgust.

Another and more severe criticism of Smuts's account concerns his claim that disgust trumps amusement. Remember, Smuts proposes that the moral flaw of a humor token triggers moral disgust and that disgust is antithetical to amusement. However, recall that the findings of Hemenover and Schimmack (2007) suggest that disgust is not antithetical to amusement across the board. Of course, Smuts could respond by saying that there is a difference between moral disgust and other forms of disgust, like sensory disgust (disgusting smells or sights), and that he is only concerned with the former. Whether non-moral disgust can sometimes coexist with amusement does not matter here but moral disgust cancels out amusement. Here the burden of proof is on Smuts to show that moral disgust really is different from other forms of disgust. We have good reasons to believe that it is not. While we may not have a clear understanding of the emotion of disgust in all its facets yet, we know that it is a complex phenomenon and that we should be careful with statements about different kinds of disgust. Moral and non-moral (or physical) disgust not only share the same facial patterns, but also involve similar brain regions (Moll, et al. 2005). It is also plausible that moral disgust is auxiliary in that it was co-opted to alert us to moral violations and that the function of moral and non-moral disgust is similar (Plakias 2013). So we have good reasons to assume that *moral disgust* really is not so different from non-moral disgust (Please also recall Kelly (2011) here). Hence, given that it is not clear that moral disgust is much different from non-moral disgust and given that we have evidence to the contrary, there is a plausibility to the idea that what is true of non-moral disgust is also true of moral disgust and that moral disgust does not necessarily cancel out amusement. What's more, disgust comes in degrees. My disgust in response to various bodily fluids while working in a retirement home decreased over time. If disgust comes in degrees, then it is sensible to assume that disgust, and moral disgust for that matter, may only cancel out certain other

emotions when it reaches a threshold. Low or moderate disgust may not have any effect at all. Indeed, when present in moderation, disgust may even contribute positively to the overall experience, like the experience of certain items of food (Korsmeyer 2011, 65). Korsmeyer calls it an "aesthetic transformation of an aversion into pleasure". Further, we can be disgusted and delighted by the same thing at the same time. In the realm of food, just think of the smell of certain kinds of cheese or the horrible smell of the delicious durian fruit. The same goes for moral disgust. In his discussion of obscenity, Kieran (2002) shows that we are sometimes simultaneously repulsed in response to something morally prohibited and attracted to it. People often indulge in what they take to be morally repulsive, for example certain forms of pornography or representation of violence and death. So, repulsion (or moral disgust) is not detrimental to attraction. In some circumstances repulsion is even a source of pleasure (Kieran 2002, 46ff.). All of this is ground to believe that disgust is not necessarily detrimental to enjoyable experiences.

If I were to diagnose, I think that Smuts falls prey to the common intuition that pleasure and pain are mutually exclusive. Yet, it is far from obvious that pain is the opposite of pleasure. Many people, at least at some point in their live, experience so-called masochistic pleasure, which is an experience that is pleasant *because* it involves pain (Klein 2014). Masochistic pleasure comprises things like wiggling a loose tooth and, of course, sexual masochism. Disgust also comes in many strengths and varieties. So even if we concede that strong disgust cancels out amusement and even if we submit to the claim that disgust is always unpleasant, a mix of amusement and a weaker form of disgust might still be enjoyable because it is unpleasant.

One last problem of Smuts's account that I want to consider here is this: Nanicelli (2014, 172) has pointed out that moral flaws come in degrees and that moral disgust is not the only reaction that humans can have to moral flaws. So it is defensible that a perceived moral flaw (even a grave one) does not necessarily elicit the reaction of moral disgust. Some transgressions may merely elicit some mild form of apprehension that does not annul amusement. The comic immoralist does not have to accept that she needs to show that something as strong as moral disgust contributes to amusement. Further, we should not substitute the notion of genuine moral flaw with moral disgust, because something can have a genuine moral flaw without eliciting moral disgust. For example, I hold torture to be morally wrong, although I am not disgusted by it.

After this critique of Smuts's argument against comic immoralism, it seems that comic immoralism cannot be easily ruled out as a viable option. I will now turn to two recent defenses of comic immoralism.

3. Two recent defenses of comic immoralism

In what follows I will briefly present two recent attempts at defending comic immoralism and show why I find them wanting. Specifically, I will argue that both accounts leave us in an unsatisfactory position regarding comic immoralism because they do not adequately address the challenge for immoralism, as outlined above.

3.1. Woodcock's argument for immoralism

Woodcock (2015) sets out to defend comic immoralism against the attack of Smuts. Smuts's claim is that the comic immoralist needs to show that the humor token itself has an immoral characteristic that contributes to the comic value of the joke. Against Smuts's claim that moral flaws are antithetical to humor, Woodcock objects that some people find immoral content amusing, like a racist who enjoys a racist joke. Thus, the causal connection between immorality and amusement, that Smuts holds to be mysterious and that the immoralist allegedly cannot account for, does not seem to be that mysterious after all. Woodcock bases his own argument in favor of comic immoralism on the familiar observation that humor is particular to certain groups. That is, the normative standards that are used to judge what is funny can be different from group to group. In other words, he starts from the premise that the aesthetic standards for judgments about humor are relative to the normative standards of a certain group. Vicious agents can be reliable judges of what is funny, when we take into account their own standards. Woodcock concludes that a subject is correct about what is funny according to the standards of the group she belongs to. The agent is not mistaken in her judgment that a joke is funny, although other individuals with different standards may beg to differ. As long as relativism is an option here, "the comic immoralist has a credible response to the objection that immoral features in jokes invariably create feelings that are incompatible with amusement." (Woodcock 2015, 208). Now, so Woodcock's argument goes, if the feeling in question is related

to attitudes that are shared by a group then these agents can find amusement in what others deem immoral:

"Agents like racists may not consider their in-group assumptions to be immoral, but if their jokes create humour by calling attention to how offensive outsiders find their assumptions, then this glorification of a partisan viewpoint supports comic immoralism because the humour that results is derived from content that is substantively immoral even though racists may view it as merely outrageous." (Woodcock 2015, 210).

So, according to Woodcock, "[...] it remains plausible that racists are amused by the immoral features of jokes because these features provoke a form of phthonic humour that involves taking pleasure in the fact that they endorse attitudes that others condemn." 32 (Woodcock 2015, 212). A joke can create amusement by calling attention to how outsiders are offended by this joke. Given that the joke is immoral, that means immoral from an outside perspective, the joke is responsible for the pleasure taken in the endorsement of a viewpoint that other people despise. Amusement is (at least partly) produced *because* of this immorality. The immorality is said to be causally effective in that it enhances amusement because others find the humor token immoral (Remember, causal efficacy was a condition that Smuts has set for immoralism). If a joke enhances amusement by calling attention to how outsiders are offended by the joke, then, says Woodcock, this supports comic immoralism because "[...] at least one credible causal mechanism supports moderate comic immoralism, because it illustrates how objectively immoral features increase the humour of jokes that are relatively funny." (Woodcock 2015, 213).

I think that Woodcock's argument is interesting and that he makes correct observations about the relation between different attitudes and amusement. However, his argument misses the point of what is at stake for comic immoralism. The attack on comic immoralism is *not* that the person who is amused by a joke that others find immoral is a bad judge of what is humorous or that she is not justified in her aesthetic verdict. Rather, the criticism claims that a *recognized* moral flaw does not contribute to amusement. The racist does not even consider the joke to be morally flawed. Rather, someone belonging to an out-group (with different moral standards) gives the judgment of immorality. Owing to the fact that there is nothing

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³² The term "phthonic" loosely means that something malicious or evil is involved. For more on phthonic laughter please see de Sousa (1987, 289f.).

immoral for the racist in the scenario, it is not plausible to say that amusement ensues *because* of the immorality. Hence, Woodcock's proposal does not hit the mark when it comes to the immoralist challenge. I think it is more plausible to say that the joke is amusing for the racists to begin with and that the imagined anger or irritation of non-racists can enhance the pleasure.

Woodcock has a different version of comic immoralism in mind than Smuts, because he holds comic immoralism to be the claim that amusement is enhanced by the knowledge or imagination that others will find the joke immoral, whereas Smuts proposes that comic immoralism is the thesis that amusement can be increased by immorality that is *perceived* (or recognized) as immoral by the subject itself. Woodcock's self-proclaimed motivation for positing a wider version of comic immoralism is that the narrow version (the one that Smuts advertises) is inconsistent with how immoralism is used in other aesthetic contexts. But it is not clear why a notion has to be consistent across all contexts. Why can't we have different notions of immoralism? An easy way to avoid confusion would be to describe briefly the version that you are concerned with. Woodcock's version of comic immoralism is not consistent with the purported target of his counter-attack. He simply presents another version of comic immoralism. In fact, I think Smuts himself would deem this version to be correct. I submit that the interesting challenge that is worth tackling by a defense of comic immoralism is the challenge of showing how a perceived (or recognized) immorality can contribute to amusement.

In sum, I think that Woodcock's counter-attack presents an interesting and valid version of comic immoralism that nevertheless does not have any traction because it fails to meet the immoralist challenge properly conceived. I say properly conceived because a defense of immoralism should take the strongest attack and try to respond to it. I will now address a second account in favor of comic immoralism and show that it is wanting for the same reason as the one that I have presented in this section.

3.2. Nanicelli's moderate version of comic immoralism

In a recent paper, Nanicelli (2014) argues for a moderate version of comic immoralism that holds that *sometimes* a comic work is funny *partly* because of its moral flaw(s). His argument is premised on the idea of ontological contextualism (Nanicelli 2014, 170). Among other things, ontological contextualism is the claim

that the generative actions undertaken to create a work are partly constitutive of the identity of this artwork and of its aesthetic and artistic properties. So, what matters are not only the manifest physical properties of a piece of art but also how it came into existence. Nanicelli's argument goes like this: If the generative actions constitute the identity of an artwork, then these actions also affect the ethical value of this very work. I will come back to this claim later.

Nanicelli shares Smuts's view that a problem for comic immoralism is that it is sometimes not clear whether the work in question is itself morally flawed (Nanicelli 2014, 171). Hence, he claims that if comic works are not genuinely morally flawed, then comic immoralism fails. His argument is part of the attempt to save comic immoralism from this failure. He wants to present a way in which an artwork can be genuinely morally flawed and is amusing *because* of this flaw. (In other words, he tries to meet Smuts's challenge as I have introduced it earlier).

Alas, Nanicelli does not meet the challenge but simply changes it. He wants to defuse the burden-of-proof-claim that Smuts has directed against the comic immoralist. Contra Smuts, Nanicelli suggests that the immoralist does not need to show that the joke is immoral, but only that the joke suffers from moral blemishes, namely some moral defect. Also, according to Nanicelli the immoralist need not show that the token is funny because it is extremely immoral. Neither does the comic immoralist need to show how moral disgust can contribute positively to humor. According to Nanicelli the immoralist only needs to show that a comic work is sometimes funny because of relatively minor moral flaws (Nanicelli 2014, 172). Please recall that the argument is based on aesthetic contextualism, which holds that generative actions are partly constitutive of the artworks identity. Accordingly, relatively minor moral flaws (that trigger unease but not full-fledged moral disgust) that result from the generative actions undertaken in the creation of the piece in fact contribute to its amusement value. He gives examples to illustrate this proposal: Some comedy shows feature children that engage in controversial behavior that they cannot evaluate properly nor anticipate its consequences. This can be considered a minor moral flaw of the show. The show is amusing in virtue of this (minor) moral flaw, because amusement would not have been achieved without coaching the children to behave in this particular way. Another example for when minor moral flaws contribute to amusement of the material is when people are deceived or coaxed to act in a certain way or to say something prejudiced in order to make them look

ridiculous. The consent of the people was attained under false premises. According to Nanicelli, the item is amusing partly in virtue of these moral flaws.

I will now address some problems with Nanicelli's line of reasoning. One shortcoming is that he does not address the challenge that Smuts puts forward but creates his own challenge instead. This new challenge is easier to tackle because it gets rid of all the difficult conditions like the recognition of the moral flaw by the person that is amused or difficult tasks like having to spell out the causal role that the moral flaw plays. Obviously, the moral flaws resulting from the creation of a humor token are seldom something that people are aware of. So the moral flaw is not causally relevant in an interesting way. Nanicelli seems to fall victim to the coupling constitution fallacy. This fallacy is to move from a causal coupling of X to Y to the claim that X is part of Y. So even if the immoral acts are causally coupled (via some extended causal chain) to amusement, it does not follow that the minor moral flaw is constitutive of amusement. Just because the moral flaw (however minor) is somehow causally linked to amusement, it does not mean that it constitutes part of the amusement value of the item. The bottom line is this: Nanicelli does not confront the strongest possible attack on comic immoralism. Declaring victory over a watered down version of the immoralist challenge is defying a weaker enemy that you have created yourself.

I also think that Nanicelli's argument can be pushed beyond the brink of absurdity. If, according to aesthetic contextualism, the identity of an artwork is partly constituted by the actions undertaken to create it, then ethical blemishes (aka minor moral flaws) in the creation of the work inhere in the artwork itself. In turn, major moral flaws in the creation of the item would also inhere in the artwork itself, making it *genuinely* morally flawed in the sense envisioned by Smuts. Now, I think that this is not acceptable because it would turn every artwork that has some immoral flaw somewhere in its process of creation into an immoral object itself, because, pace contextualism, the flaw inheres in the artwork itself. There is another related problem that I would like to call the problem of *blur*. It concerns the criterion for when an artwork is morally tarnished. Nanicelli is not clear on what actions in the causal history of the artwork are to be included or excluded in this regard. Where do we draw the line? Surely, the account cannot include all immoral actions in the causal context surrounding the creation of the piece. Otherwise, a painting that was painted in a household with slaves would be morally blemished when the ownership

of slaves in one form or another contributed causally to the creation of the piece. Similarly, paintings created with paint from a factory that took advantage of slave laborers would be morally tarnished. Also, a newspaper article in whose process of creation the journalist used morally questionable methods of research (say blackmail) is not an immoral item itself. If the challenge simply is to present an account of how something that is immoral is *somehow* causally related to my amusement, then Nanicelli's account seems to hold water. A lot of things are causally related to my amusement, after all. However, I think that his account is much too broad because it includes all kinds of irrelevant instances in which some immorality is related to my amusement.

One might also want to call the basis of Nanicelli's argument into question. Aesthetic ontological contextualism holds that the generative actions endow the work with artistic properties. I think that this is a case of the *genetic fallacy* and needs to be debunked. In epistemology you are committing a genetic fallacy when you confuse the truth of a belief with the source of this belief. For example, calling into question that something is true simply because it originated from an unreliable source. Now, I think that the idea of the genetic fallacy can be generalized so that "the genetic fallacy may be said to occur whenever someone argues directly from facts about origins to facts about something's present nature." (Baggini, Fosl 2010, 102). Unfortunately, this is what ontological contextualism seems to do. Ontological contextualism moves from the origin of an artwork (that is the generative actions to create it) to its nature or character (that is its identity). What is true of the origin does not have to be true of the resulting product. I think that this issue casts some serious reservation on the idea that a moral flaw pertaining to the generative actions endows the generated product with an immoral identity (if only partly).

In this section I have outlined the second of two current accounts that seeks to defend comic immoralism against its critics and showed why it is lacking. Apart from its intrinsic problems, Nanicelli's account, like the account of Woodcock that I have presented in the section before, is unsatisfactory because it does not address the challenge (presented by Smuts) that defenders of comic immoralism should engage with. I will now present an account that I think can meet this challenge properly.

4. Compound emotion, immorality and pleasure

To be perfectly clear here: I think that the interesting issue regarding immorality and amusement is that the immorality needs to be recognized by the subject. Comic immoralists should not take the easy way out by reframing the challenge like Nanicelli urges us to. We should distinguish cases where we hold something be immoral from cases where we have knowledge that others hold it to be immoral (like the amusement of racists in Nanicelli's example) and cases where there is some immorality involved somewhere in the causal history of the production of the humor token. What needs to be shown is that the token is amusing (at least partly) because of an immorality that is recognized by the subject, not because it is immoral to somebody else, like Woodcock claims, or because there was some immorality involved in its production, as Nanicelli would have it. Only a moral flaw that is recognized by the subject is important here. In defending the claim that it is plausible to think that sometimes people are amused due to an immorality, the account I am introducing here gives a causal link between this immorality and amusement. Therefore, it meets one of the crucial conditions of the challenge for comic immoralism.

Let me begin my defense of the tenability of comic immoralism with the claim that amusement is an emotion and as such it is a *compound* mental state. The compound account of emotions is widely held among philosophers of emotion (Blackman 2013). The idea here is that emotions are comprised of constituents that make up the compound mental state. As a compound, an emotion is composed of elements that include, but need not be limited to, cognitive components and affective components. On a popular notion for example, amusement includes the cognitive events of recognizing and resolving an incongruity. Some authors expand this account by claiming that the incongruity is evaluated as appropriate³³ (Oring 2011, Oring 2003) or appraised as non-threatening (Carroll 2014, 49). We have here a mental state that includes some form of recognition and judgment. Amusement is also partly an affective state that involves some kind of pleasant and enjoyable sensation. Amusement has a positive 'hedonic value'. The pleasantness is an essential property of the experience of amusement and I think that nobody would seriously call into

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³³ I will not take a principled stance on the issue here, because what is important is only that amusement is a compound mental state.

question that the feeling of *pleasure* is an integral element of amusement. The element of pleasure is also acknowledged as essential part of amusement in every serious account of amusement that I know of (f.e. (Hartz, Hunt 1991); (Carroll 2014); (Morreall 2009)), although sometimes it is called "enjoyment" ((Clark 1970); (Scruton 1982)) or "emotionlike pleasure" (Roberts 2003, 301). In a nutshell: You cannot have amusement without pleasure. Further, the pleasant feeling also explains why people seek out amusing experiences, either by telling jokes to one another, going to comedy shows or watching humorous movies. That people seek out the intrinsically pleasant episodes of amusement can partly be explained by neurological underpinnings as evidenced by scientific findings. Countless neuroscientific studies could show that humorous stimuli engage the mesolimbic reward system ((Berns 2004), (Mobbs 2003); (Franklin, Adams 2011)). Enhanced activity in the mesolimbic reward system is implicated in the enjoyment of experiences and plays a crucial role in explaining why we seek out experiences that promise to activate these regions.

Now, I want to suggest that a recognized immorality (that is, the subject knows that his conduct or the conduct of someone else is a moral transgression) can contribute to the pleasure of an experience. Here is an example that illustrates how a moral transgression, that is recognized as such, is responsible (at least in part) for the pleasure of the experience: When I was a little boy I once smashed the windows of an abandoned house. Now, it can be said that smashing things is an enjoyable experience in itself. But I propose that the pleasure was partly due to the fact that the action was immoral, and, moreover, that I knew that it was immoral. It would not have been the same experience without the knowledge of the moral transgression. The knowledge that the act was forbidden contributed to the excitement and pleasure. Another way to put my point is by way of a subtraction thought experiment: I think that if we were to take away the immorality involved in the situation just described, the experience would diminish in pleasantness. Hence, at least in some instances, we derive pleasure from an act that we ourselves acknowledge as immoral. Transgressing boundaries and breaking rules can be pleasurable not only despite the fact that is a transgression but sometimes precisely because it is. Augustine in his Confessions relates an anecdote about a pear tree whose fruits he was not supposed to eat. He desired the pears even more because they were forbidden and upon eating them he remarks "my sin was the sauce that made them sweet" (Confessions, II, vi). Similarly, Kenny (2003) gives the example of a schoolboy who is forbidden to eat bacon in his room but enjoys it even more because it is forbidden. What all these examples suggest is that a moral violation can indeed contribute to the experience. If what I have said so far is defensible then the (recognized) moral transgression is an important part of the explanation of the pleasant and exciting experience. The experience is enjoyed *qua* violation.³⁴

Of course, the force of what I have just said hangs to a large degree on the intuitions regarding the smashed-window example. Someone may object that you do not have to share the intuition regarding the example and claim that there is no moral transgression involved because as a little boy I did not have a proper understanding of morality. We can grant that I have known that my parents did not allow me to smash windows and would not have condoned such a behavior but this hardly qualifies as moral understanding. The transgression, so the possible objection goes, must be accompanied by the belief that it is immoral and this moral understanding is not present in children.

As a response to this objection, I want to give some empirical evidence regarding moral understanding in children, so that the point I am making here is not exclusively based on some shaky intuitions. One type of answer is suggested by the presence of a sense of morality and immorality in young children. This is evidenced by the fact that young children are capable of moral emotions. The object of the moral emotion of guilt for example is oneself and ones own actions in relation to moral norms. Guilt occurs when one violates one's own moral standards. In order to feel guilty you need an understanding of what it means to violate moral rules. Children are able to anticipate their moral emotions such as guilt in response to actions that either violate or uphold a moral norm (Ongley, Malti 2014). Further, in a study with 4 and 8 year-old children, researchers found that moral reasoning plays an important motivational role in children's donation behavior (Ongley et al., 2014). Although the moral reasoning ability increases with age, children around the age of 3 years already have a grasp on the normative dimension of property rights (Rossano et al. 2011) and protest against the destruction of the property of a third party because they judge it to be a moral transgression (Vaish et al. 2011). So the available scientific evidence suggests that children, who are old enough to smash windows, have an understanding of the moral norms that are involved in this act and know

 $^{^{34}\,\}mathrm{I}$ owe these two examples a paper by Williams (2003).

what it means to violate them. So the objection based on a lack of normative understanding cannot be substantiated.³⁵

Why does the recognized transgression of moral boundaries contribute positively to a pleasant experience? A couple of reasons come to mind. All these reasons do not need to be accessible to the person in the moment of the transgression. Further, I think that it is possible that an experience can be pleasant in virtue of more than one reason. First, the transgression may be novel and surprising. Surprise can be very pleasant (Morton 2014). Assuming that most people do not violate moral codes all the time, it is plausible that sometimes the violation is pleasant because it is novel and surprising. Second, pleasure might also be derived from a feeling of empowerment that comes with violating a moral norm. Third, a source of pleasure here might also be the tacit knowledge that one may or may not get away with the violation. Especially when telling a joke that transgresses moral boundaries one is likely to get away with it because there is always the exit strategy in saving that one was 'just joking'. Fourth, people frequently indulge in what they find to be morally repulsive. One answer of why people do this is the delight in the transgression as such, or as Kieran (2002) calls it, the "fulfillment of a meta-desire". With respect to obscene narratives he writes:

"This meta-response the narrative seeks to evoke, delight at the transgression of moral norms, speaks to a common desire to break free from the fundamental moral norms and mores we ordinarily take to be binding. We are not attracted to do so in everyday life because of the high moral costs to oneself (the concomitant feelings of shame and guilt) and others (the harm they would suffer) of doing a grave wrong and the high prudential costs (being ostracized by others at best or imprisoned at worst). But such costs are far less with respect to representations that merely solicit, indulge and commend a desire to be morally transgressive without any obvious harm to anyone." (Kieran 2002, 46)

In our adult life we have to control and restrain a lot of our urges, drives and reactions to others. So, giving in to our urges and shedding the shackles of restraint, even if just in respect to representations, can be liberating and a source of pleasure.

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³⁵ Science is driven by disagreement. So it does not come as a surprise that some authors have questioned whether the protesting behavior really betrays the normative understanding of children. See Brandl, et al. (2015) for alternative explanations of children's protest behavior.

Back to amusement now: I have suggested that amusement is a compound mental state. Now, tinkering with one element of a compound state changes the character of the whole state. If you take away or change one element from the compound mental state of amusement you would alter it. For example, assuming, like Oring (2003) for example, that amusement rests on an appropriate incongruity that is recognized, changing the second-order judgment of appropriateness into the judgment that the incongruity is not appropriate would transform amusement into some other state like unrest or even anxiety in the face of an incongruity. This is true not only for amusement but also for other emotions. Take the emotion of blame as an example.

Some negative emotion is blame in virtue of a second-order attitude regarding some negative first-order emotions directed at a person. This second-order attitude is the attitude of entitlement that the object deserves these first-order emotions. In blame we feel entitled to the hostile emotions towards another person because the other person deserves our negative emotions (Pickard 2013). If you were to change one element of the compound that makes up blame you would get something different. Accordingly, if you cross out entitlement you will inevitably loose blame and are merely left with some hostile first-order emotions. Another example for a compound mental state, where the change of one element brings about the change of the whole, is boredom. Boredom is a complex mental state comprising of affective, volitional and cognitive states (O'Brien 2014). If you change one element of the affective construal that makes up the emotion of boredom, you likely will end up with something closer to anger or hatred. Hence, a compound mental state changes its nature when you alter or take away one element. Ben-Ze'ev brings out the same idea when he writes that the emotion of Schadenfreude is subject to a equilibrium" (Ben-Ze'ev 2009, 354) of different features. When the weight of one feature is changed the weight of some other feature changes as well. Schadenfreude is the pleasure in the face of another persons' deserved misfortune. So, the idea goes, when the misfortune of another person is too severe or we think that the other person does not deserve it, the situation will not elicit Schadenfreude but more likely pity or sadness.

Now, if amusement is a compound mental state similar to other emotions, then changing one element of the state means affecting the whole. When you causally influence one element of a compound mental state then you also causally alter the whole state. That amounts to the claim that when you causally influence the

component of pleasure that is part of the compound state of amusement, then you also influence the entire state of amusement. Above, I have suggested that a moral transgression that is recognized by the person can enhance the pleasure of an experience. Given that a perceived immorality can influence pleasure we have good reason to believe that a recognized immorality can positively influence the pleasure of amusement.

Of course, the immoral transgressions that I have introduced above to make my claim are relatively benign (like smashing windows or stealing pears). But that does not affect my account because for comic immoralism to succeed it is not necessary that the perceived immorality is severe. A defense of the tenability of comic immoralism does not need to show that severe moral flaws are causally contributing to amusement. Showing that small moral flaws are contributory is sufficient.

But even in cases where the moral flaw is grave enough to induce disgust or when the moral violation is painful,³⁶ it is not obvious why this cannot make a causal contribution to the pleasure of the experience. That some people take pleasure in something that induces fear and even disgust is supported by the observation that a lot of people like to watch horror movies. The feelings of fear and disgust have negative emotional valence. Yet, people seek out such experiences for their enjoyment. It is puzzling why, if watching the movie is painful or unpleasant to, people seek out these experiences at all.³⁷ In response to this puzzle, some authors have proposed the strong hedonic ambivalence thesis³⁸ that holds that people take pleasure in these kinds of movies (or other forms of painful art for that matter) not despite but in virtue of the painful aspects of the experience. Accordingly, Strohl suggests that the "subjects enjoyment is augmented by the experience of a painful feeling" (Strohl 2012, 203). In other words, the painful character of the experience makes an indispensable *causal* contribution to the particular form of enjoyment that is experienced. Similarly, it has been claimed that disgust can make a contribution to the overall aesthetic experience and is not just an unwanted but inevitable side effect (Korsmeyer 2011). We should not overlook, as I think the critics of comic

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³⁶ It is important not to confuse pain and painfulness. Pain is a bodily sensation whereas painfulness pertains to a variety of experiences, not all of which involve the sensation of pain. Another way is to distinguish between a broad and narrow notion of pain (Bain, Brady 2014, 1) that corresponds to the distinction between pain and painfulness.

³⁷ This has come to be known as the 'paradox of painful art', although I think it is more a puzzle than a real paradox.

³⁸ In contrast, weak hedonic ambivalence is taking pleasure in something that has some painful aspects. Here, the experience of something that has painful aspects is enjoyed *despite* these painful aspects, maybe because other aspects trump the painful ones.

immoralism sometimes hastily tend to do, that the immoral may be attractive. Seeking out immoral jokes can be attractive precisely because they are immoral, painful and disgusting. Pieces of art attract for different reasons. To stick with the example of gruesome horror movies, the appeal of some gross out movies may be because they tease the "edges of our tolerance" (Korsmeyer 2011, 121). A similar idea is expressed in what I have, following Klein (2014), called masochistic pleasure. That is an experience that is pleasant because it involves a certain kind of pain. When most people hear of masochistic pleasure, they think of sexual practices like the ones popularized in the successful book Fifty Shades of Grey. However, as Klein (2014) observes, masochistic pleasure comes in many forms: From wiggling a loose teeth to the pleasure of works of fiction that are scary or tragic. What explains many cases of masochistic pleasure is that the pain involved in it scratches the edge of what is endurable to the person. This "edge of bearability" (Klein 2014) is what makes the experience pleasurable and in most cases of masochistic pleasure the pain is pushed to that limit. Hence, not all painful experiences are devoid of pleasure and some experiences are pleasurable because they are painful. Some art brings about a maelstrom of different feelings and thoughts at once, some of which may be opposites, but the experience can be satisfying and pleasant nevertheless. This may also explain the attractiveness of immoral humorous material in that it can push the person to the limit of what is morally acceptable or bearable. This reason may also be added to the four reasons I have introduced above.

Summing up, here is my proposal: Immorality, I want to suggest, sometimes makes an active *causal* contribution to the character of the complex experience of amusement by contributing to the component of pleasure.

4.1. Clarifications and objections

Keep in mind that my account does not entail that immorality *always* enhances the pleasure of an experience. I am only claiming that there is good reason to assume that immorality does so in certain circumstances and that moral violations do not necessarily cancel out amusement, as Smuts claims. There surely are conditions where immorality does not contribute positively to the pleasure of an experience. Moral considerations may silence or disable any reasons to be amused (Jordan, Partridge, 2012). Thus, in some circumstances the moral violation is so severe that it

has no or a negative effect. Please also note that I do not wish to imply that pleasure derived from immorality is desirable or appropriate. More can be said on this topic but it seems clear that not all pleasures are desirable, especially when they are derived from immorality. Sometimes we have some additional reasons not to desire pleasure that we experience. I only want to draw attention to the fact that moral transgressions can sometimes be pleasant *qua* moral transgression.

A word on the intricate relation of moral violation and pleasure: Moral transgression is a matter of degree and not every moral transgression will play a contributory role in the experience. If every moral transgression would enhance pleasure, we could make an experience more pleasant by adding a moral transgression. Or we could make an experience that involves a mild moral transgression more pleasant by dialing up the transgression. But, as everyone probably knows from personal observation, simply adding a transgression does not automatically enhance pleasure. Empirical studies using moral and non-moral violations suggests that there seems to be a threshold of transgression when it comes to amusement. For amusement to arise, the perceived violation or threat cannot be too great or too small. A small violation or no perceived violation means no amusement (Mc Graw, Warren 2012). There seems to be a "sweet spot" of amusement (McGraw, Warren 2013, 5), where the violation is neither big enough so as to annihilate humor nor benign enough in order to be a real violation. These empirical studies, that suggest that there is a threshold for when the immoral is detrimental to amusement, lend support to the claim that comic immoralism is correct because they show that moral transgressions do indeed contribute to amusement, if only up to a certain point.

Before I will address some possible objections, I should also note that although the transgression is the cause of the pleasure, it is not necessarily the object. Cause and object of affective states are logically distinguishable. Further, the immorality can be one cause, but it does not have to be the *only* cause. The pleasure might also partially derive from other causes as well, The pleasantness that comes from resolving an incongruity or the in-group phenomena that Woodcock (see above) speaks about come to mind here. The idea here is not that a humor token is amusing *only* because some immorality is involved but that the immorality contributes causally to the pleasantness, whatever the other contributors to pleasantness may be. Immorality can enhance but cannot solely create comic amusement.

Let me now look at some objections to the above argument. I have agued that pleasure is an essential part of the compound emotion of amusement, but someone might object that this affective component is in fact an addition to the more fundamental process of amusement. The pleasant feeling follows upon being amused but it is not an essential part of it. Hence, even if we grant that an immorality can contribute to pleasure it does not contribute to amusement.

I do not think that this is a credible picture of the relation of amusement and pleasure. If pleasantness is an affective component that follows upon amusement (that means is not an essential part of it) then you could be amused without a pleasant feeling. But that does not seem to be the case. Nobody says that she was amused but that it did not feel pleasant. It would be like saying that I was scared but that it was not unpleasant. Thus, pleasantness does not merely follow upon amusement or is an addition to it. We cannot dissociate pleasure and amusement because it is an essential part of it.

Here is another objection: One might voice the reservation that finding something immoral and being amused by it do not go together because one involves a positive construal and the other a negative construal. This doubt, however, should vanish quickly when we consider that it is a common occurrence that judgment and affective experience can come apart. Affective experiences can be in stark contrast to your judgment of the situation and emotions are not or to a lesser extent subject to cognitive penetration. In other words, emotions are recalcitrant in that they cannot (or not easily) be overridden by beliefs and attitudes. Some people are afraid of tiny dogs, although they know that they are harmless. I am afraid of flying, although I know perfectly well that it is one of the safest modes of transportation. Given that the negative or positive construal of a situation by an emotion can challenge your judgment of the very same situation, it is also plausible that you are amused, which is a positive construal of something (Roberts 2003), about something that you also judge to be immoral. Consider also the difference between wanting and liking. You may like an experience (in that the experience is pleasant), but this liking (or hedonic pleasure) does not have to be congruent with your also wanting this experience (Although the two are usually congruent). This difference is also instantiated at the neuronal level: Different brain mechanisms are responsible for the wanting and liking of the same reward (Berridge 2009) and there seem to be different cognitive processes involved as well. Similarly, the moral transgression might be experienced

as something that you like but do not want. So the hypothesis that a moral transgression can be pleasant is empirically plausible.

It might also be objected that the pleasure derived from the moral transgression in humor is not real pleasure because jokes are fiction and fictional emotions are not real. They are pseudo-emotions at best. Engaging in humor, the opponent might say, is simulating, which means there is no real transgression. This objection fails because there is no philosophical ground for believing that the pleasure and emotional responses elicited by fictions fall short of being real and genuine (Gendler, Kovakovich 2006). Further, not all sources of amusement are fictional. Slapstick or Schadenfreude about a mishap of a person is decidedly not fictional. Further, the objection regarding simulation runs counter to the common practice of objecting to a joke on moral grounds. If humor is simulating and no real transgression could ever take place, our moral concerns about some jokes would be largely misplaced. Nonetheless, I think that most people find some humor tokens repulsive not because they invite us to simulate a transgression, but because there is something genuinely immoral about it.

In the next section I will offer some advantages of the account that I have outlined here.

5. Advantages

It is worth pausing at this point to repeat the immoralist challenge (following Smuts). According to this challenge, the immoralist must present an account where the subject recognizes the moral flaw as moral flaw. Further, the moral flaw must play a causal role for amusement. The amusement must be (at least partly) due to the immorality. Another condition is that the moral flaw is *genuine*. That means it is not enough that the material represents some moral flaw (e.g. depicting a crime). I think that the account that I have presented here meets all three requirement of the challenge, because it shows that a recognized and genuine moral flaw can contribute positively to the pleasantness of the compound emotion of amusement. That is a discernible advantage over both Nanicelli's and Woodock's proposal, in that my account tackles the immoralist challenge that is more demanding, and not some weaker version of it.

Comic moralism and comic immoralism both agree on one thing: Moral flaws can have an impact on amusement. But comic moralism claims that this impact is always negative. I think that comic moralism is wrong here. If comic moralism is correct in claiming that moral flaws can have a causal impact on amusement (in that it cancels it out), then I do not see a prima facie reason why the impact cannot also be positive. If my account is tenable, then we can have it both ways: Sometimes (given that the context is right, and that there are no other reasons that disable amusement) the immorality is partly causally responsible for our amusement and sometimes the immorality might be causally responsible for why we are not amused. Whether or not we are amused seems to depend on a lot of things including context, the state of mind and mood we are in, and on the severity of the violation (McGraw, Warren 2010). Maybe there is a threshold at which an immorality changes from being contributory to amusement to something that decreases the enjoyment of the experience. The concentration on the pleasure component gives us a clue of how humor tokens might evoke unpleasant feelings that prevent amusement. Empirical studies show that words can elicit different emotional reactions and that some words engage brain regions that are responsible for reward (Hamann, Mao, 2002). Correspondingly, the mental images, ideas or thoughts that some jokes can induce in the audience might trigger unpleasant feelings. This is evidenced by the almost full spectrum of emotions that we can experience when we are reading fiction. Our fictional emotions are no less real, authentic and rational than our non-fictional emotions. The features of the joke may evoke an unpleasant response. Here we have a glimpse at why some jokes, even when they do not contain a severe moral violation, are not so amusing to some people. But more empirical work is necessary to shed light on when and how immoral and moral features of fiction affect our affective mental states and judgments about it.

Other things than a recognized immorality can add to the pleasantness of a humor token, so an account that pays attention to the pleasure of amusement is not only able to explain why some immoralities can make a positive contribution to pleasure, but it is also in a better position to explain how other things might enhance amusement via pleasure. Apart from the pleasure that may be derived from the incongruity itself or the pleasantness of the surprise of the resolution, there is also pleasure derived from the play of words, pleasure from the aptness of execution of the presentation of the humor token pleasure derived from novelty. All of these

things, I think, can contribute their share to the net amount of pleasure of the experience.

Another advantage of the account that I have outlined above is that it can accommodate the important insights of the other accounts that seek to defend comic immoralism, such as Woodcock's idea that it is important how outsiders judge the joke. We all know from personal experience that it can be highly enjoyable to tease people that do not hold the same opinions as we do. And part of the fun is due to the fact that they do not agree with us. Therefore, apart from other features of the joke that we may enjoy, it is plausible that the glee about other people's contempt or the strengthening of in-group bonds contribute to the pleasure component of amusement. The feeling of belonging to the group can enhance the pleasant experience of a joke. My account can easily accommodate the in-group vs. out-group story that Woodcock tells.

It also seems that the focus on pleasure helps to explain how moral virtues are conductive to amusement. Not only can moral virtue help recognize the butt of the joke as Smuts (2013) argues, but one may find detecting a moral virtue pleasant because it enhances ones self-image. Discovering a moral virtue speaks to your self-image as a virtuous person. The picture that Smuts draws about the enhancement of amusement by moral virtue is not opposed to the account that I have given here. In fact, in bringing pleasure into the mix we gain a fuller picture of how moral virtues can be supportive of amusement.

My account also has implications for other areas. If I am correct in claiming that moral violations can contribute positively to experiences and are therefore an important part of the explanation of these very experiences, then we might want to have a look at other areas where the bias that moral violations are always detrimental have taken a foothold. Without going into further detail, what I have in mind here are debates in aesthetics regarding the role that moral violation may play for aesthetic value.

6. Conclusion

In addressing the question whether moral flaws can enhance amusement this paper is a constructive contribution to the ongoing debate regarding the relation between morality and humor. The position that holds that moral flaws can contribute positively to amusement is known as comic immoralism. I have briefly rehearsed a challenge for comic immoralism presented by Aaron Smuts who argued that the comic immoralist has the burden of proof of showing how a genuine moral flaw could contribute to amusement. According to Smuts, what we want from an account of comic immoralism is an explanation of why a humor token (f.e. a joke) can be amusing because it is immoral and not despite the moral flaw. The immorality must play a causal role in the amusement. After a critical examination of Smuts's case against comic immoralism I scrutinized two recent defenses of comic immoralism. I concluded that both accounts do not address the challenge that comic immoralism should address. To ameliorate this, I outlined an account that takes the requirements of the immoralist challenge into consideration. I have presented an explanation of how moral flaws can causally contribute to amusement. My defense of comic immoralism is based on the view that amusement is a compound mental state that comprises, among other things, of pleasure. I have claimed that to the extent that perceived immorality can be a source of pleasure, immorality makes a causal contribution to amusement in that it has an influence on the pleasantness of amusement. Amusement is a complex phenomenon and our theorizing about it should reflect that. Acknowledging that immorality can contribute to positive emotions and mental states is acknowledging the reality of our human and all-too human minds. Or as Goethe has his Doctor Faust exclaim: Two souls alas! are dwelling in my breast.

Chapter Four

In the previous chapters I have focused on problems of the incongruity theory of humor (chapter one), I have addressed the issue of the formal object of amusement and emotion theory (chapter two), and I have tackled the specific problem of comic immoralism (chapter three). In this chapter, I will pick up the theme of sense of humor.

It seems hard to deny that people value a sense of humor in others and that amusement is something that we enjoy and often actively seek out. Recall that in the introduction to this thesis, I have devoted one section that shows that there is a lack of conceptual clarity regarding the notion 'sense of humor' and I have also outlined possible options of how this notion could be cashed in and what that means for the cultivation or training of sense of humor.

In this chapter I want to pick up the theme of cultivation again. Given that amusement seems to have so many benefits (improving health, finding a mate, enhancing careers; see introductory chapter), why not enhance and train your ability to be amused? In the paper of this chapter, I want to investigate whether our ability to be amused can be trained. I will adopt the idea that training a capacity requires improving control. If we cannot improve the control of a capacity, then we cannot train that capacity. I will show that we cannot improve the control of our capacity of amusement because of the cognitive process underlying amusement. Hence, you cannot train your funny bone.

Cultivate your funny bone? - The case against training amusement

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1. Introduction

Consider Bob, whom people attest a lack of sense of humor because he is not easily amused. He may ask himself: "Can I train to be amused more often?", or, more sophisticated: "Can I somehow improve the mechanism that is responsible for amusement in a way so that I enhance my ability to be amused?". Given that a sense of humor is something that we value in other people, the wish to improve this ability may not be as far-fetched as it might seem. Some authors have hinted that our sense of humor is subject to cultivation and training (Morreall 2009, 140). Smuts for example claims that our sense of humor can be trained and blocked (Smuts 2010, 345). In the light of these remarks, I want to investigate the idea that our ability of amusement can be trained. My conclusion will be bad news for Bob (or any other person with the same goal) because the capability of amusement cannot be trained.

I will proceed as follows: In the next paragraph I will make some clarifications and will then present a formal outline of the argument. After that, I will show that training an ability requires improving control of that ability. Then, I will make plausible the claim that improving control requires paying attention to covert elements. Further, an account of the cognitive processes underlying amusement will be presented. According to this account, covert elements are at the heart of the cognitive mechanism responsible for amusement. These elements cannot be attended to by danger of jeopardizing the mechanism. That means that because improving control requires attention to covert elements, we cannot improve control over the capacity of amusement. More precisely, the thesis here is that although there may be some ways to improve your capacity of amusement, it is not trainable like a host of other capabilities.

2. Clarifying remarks

Before I delve deeper into the topic, a brief terminological digression will help clarify the discussion to come. For the purpose of this paper I will use the terms "amusement", "mirth" and "humorous amusement" interchangeably. They refer to the intrinsically pleasant affective mental state that we usually have in response to funny stimuli. Later in the paper, I will present a more detailed sketch of amusement.

Further, I take humor to be a deliberately created stimulus that elicits the affective reaction of amusement. The humorous or the funny are a response-dependent property. Something is humorous or funny only in virtue of our reaction to it. The foremost examples for humor are jokes and various comedic performances. Needless to say that we are not only amused by humor; other non-deliberately created stimuli can evoke amusement too. Please note that laughter and amusement should not be confused, although laughter is usually an indicator for amusement. While humor often causes laughter and amusement, we can be amused without laughing out loud and we sometimes laugh without something being funny, as in tickling.

The terms 'capacity', 'capability' and 'ability' will be used interchangeably here. I take these terms to denote the trait of humans to deploy certain faculties, either mental or bodily. The deployment does not have to be conscious. The notion of capacity (and the others) might also be cashed in in terms of disposition. Capacity seems to be a dispositional concept: "To possess a dispositional property is not to be in a particular state, or to undergo a particular change; it is to be bound or liable to be in a particular state, or to undergo a particular change, when a particular condition is realized" (Ryle 1949, 43). To say that someone has the capacity is to say that if certain circumstances were such and such he or she would act or behave in a certain way. A certain behavior or a certain performance is an actualization of the capability. A capacity then is the possession of certain features or attributes (mental or bodily) that are required to bring something about. Further, a capacity can result in the exhibition of some feature or behavior that might not be intended by the person. I also take it that skills are capacities, but not all capacities and abilities are skills. Some capabilities can be improved by attentive practice and control. These we usually call 'skills'.

Some comments are warranted concerning training and other forms of shaping our capacities. As Ryle has pointed out: "We build up habits by drill, but we build up intelligent capacities by training" (Ryle 1949, 43). Drill, so Ryle, consists of repetition that results in automatic behavior, whereas training "though it embodies plenty of sheer drill, does not consist of drill. It involves the stimulation by criticism and example of the pupil's own judgment. He learns how to do things thinking what he is doing, so that every operation performed is itself a new lesson to him how to perform better." (Ibid.) I will use the terms "practice" and "training" interchangeably. They both refer to procedures that usually involve attentive repetition with the intention to acquire a skill or maintain proficiency in it. I will say more about attention in a later section of the paper. Keep in mind that I am not claiming that training is the only way to improve a capability. Drugs or certain other forms of enhancement might also contribute and shape our capabilities. Keep in mind that I am also not denying that there is some ontogenetic development of amusement that takes place without any training on the part of the person. Although certain brain regions may form a humoressential neural network that is already present in children (Neely 2012), different things are amusing to children and adults. There is an age difference in humor preference and the enjoyment of different kinds of humor at different ages (Ruch, McGhee & Hehl 1990). It seems plausible that amusement changes according to the neurodevelopment of the person and as the person's conceptual and cognitive abilities become more diverse.

3. Argument

I will now give a formal rendering of the argument that I want to put forward. My argument goes as follows:

- (1) Training a capacity requires improving control over that capacity.
- (2) If we cannot improve control of a capacity, then we cannot train that capacity.
- (3) We cannot improve the control of capacity of amusement. Therefore,
- (4) The capacity of amusement cannot be trained.

In the course of the paper, I will make these premises plausible. Premise (3) is defended by recourse to another argument that deals with the relation of amusement and control. In particular, the argument is that

- (1) Improving control requires the attention to covert elements.
- (2) Elements attended to are not covert anymore.
- (3) The cognitive mechanism that underlies the capacity for amusement requires covertly introduced elements.

Therefore,

(4) We cannot improve control of the capacity for amusement.

Claim (3), that the cognitive mechanism that underlies the capacity for amusement depends on covertly introduced elements, is the most plausible account of how amusement works. To properly introduce this account will take considerable space of this paper. I will now proceed to defend the claim that training a capacity requires improving control over that capacity.

4. Training requires improving control

I think the claim that in order to reach proficiency in a capacity you have to achieve some sort of superior control regarding that capacity is not overly controversial. Remember, all skills are abilities but not all abilities are skills. What distinguishes a skill from other abilities is that a skill can only be improved by going beyond mere repetition, namely training. Training a capacity requires improving control. Let me give two examples where the notion of control is most readily conceivable. Say you want to improve your ability to play billiard and set out to train it. It is not enough to know something about the physics or the rules of the game. If you want to improve your play you will also have to improve control over how you position your body with every shot, how you hold the cue and so on. Similarly, training an intellectual capacity also requires some sort of control. Say you want to improve your capacity to play chess. What you will need to improve, among other things, is the control over your thoughts. For example, you will have to hold a particular position of pieces in mind while imagining the consequences of certain moves. This requires taking control of your train of thought. There are also some other preparatory or

interventional mental actions that you need to perform, like calming a wandering mind, stopping a train of thought or blanking your mind (Strawson 2003).

Control is essential to every skill and one might say that the level of skill that someone has achieved is in direct proportion to the level of control. A skilled archer is in perfect control of her arm, her hand movements and the way she holds her head. A skilled mathematician is also in control of her thought and deploys her mental abilities in a controlled fashion. That is, she is in control of the mathematical maneuvers and steps she performs in her head, on paper or on screen. Of course, training does not *exclusively* consist of control. There is also a lot of drill and repetition involved. However, when you take improving control out of the equation, you do not get training, but something akin to drill (see Ryle's remark above). So, I think it is sensible to assume that training a capability requires improving control. Improving control in turn requires attention.³⁹ The claim that control requires attention will be the topic of the next section.

5. Improving control requires attention to covert elements

What does it mean to improve control regarding a capacity? I submit that a vital part of improving control regarding a capacity requires attention to covert elements, that is elements that have gone unnoticed before. Let me come back to my example of archery from above. When you start archery as a novice, the precise position of your hand, your shoulder and your head goes unnoticed. You just point and shoot as you deem fit. If you want to gain more control over your bodily movements, you need to start paying meticulous attention to the position of your hands and on how you place your feet and shoulder and so on, correcting them if necessary.

The idea that improving control requires directing attention to covert elements is supported by the observation that there are different levels of skill acquisition. It is well known that training is a process. You start at the point where you want to improve some ability, then you practice this ability and, hopefully, end up improving ability. Dreyfus observes that in order to improve an ability, we pass through several stages until we can reach expertise (Dreyfus 2002; Dreyfus 2004). We start at the

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³⁹ We should not erroneously identify control with *attentive* control all the way. It is not that somebody who is skilled at something is attentively evaluating every move and posture while performing the skill. This conscious activity of "thinking while doing it", while important in the first stages of training, is not needed at later stages of skill development (see Dreyfus (2002) for the stages of skill acquisition and the role of instruction and thought).

level of a novice and work our way up to the top level of expertise. All the stages have some characteristic features that can be described. At the stage of the novice, some instructor or the student herself usually takes some of the complexity out of the task environment by decomposing it into features that she can more easily recognize and pay attention to. At this early stage, the novice is usually given a set of rules for action that she can then apply when the constellation of features demand it. Dreyfus uses the examples of a student automobile driver and a novice chess player to illustrate this point: The novice driver recognizes the speedometer and simply follows some rule that states something along the line of 'Shift to this gear when the speedometer looks like this!'. The unseasoned chess player learns the values of the types of pieces and follows rules like "Always exchange if the total value of pieces captured exceeds the value of pieces lost" (Dreyfus 2004, 177). As the student proceeds through the stages, the performance becomes more and more fluent, intuitive and automatic, demanding less awareness and attention. What is important here is that attention is tantamount to improving the ability when you start out as a novice. The novice driver has to pay attention to the de-contextualized features of the situation like the speed indicated by the speedometer, whereas the "competent driver, leaving the freeway on an offramp curve, learns to pay attention to the speed of the car not to whether to shift gears" (Ibid., 178).

So, when you want to improve a bodily ability such as archery or an intellectual ability like chess, attention seems to be of the essence. The attention here is directed to particular elements of the performance, namely covert elements. In archery, as already noticed above, you have to carefully consider how to hold the bow and arrow, how you posit your body, the degree of you arms and so on. As a beginner, it is almost as if you go through a list and check the things that are important. That means you deliberately pay attention to the elements that you commit yourself to, in order to avoid mistakes and improve your performance. Oftentimes, the elements need to be pointed out by an instructor so that the novice knows what crucial covert elements she should pay attention to.

It seems to be the case that focusing conscious attention on certain aspects of actions decreases as a person gains expertise (Shepherd 2015, 329; 325 ff.). Interestingly however, attention does not become unimportant as the student progresses through the stages towards expertise (although the focus of attention will certainly change), but remains a crucial part of what it means to be skilled in

something. In focusing on bodily skills, Montero argues that even for highly skilled people, attention is not necessarily harmful but can be advantageous to the performance (Montero 2010). Further, Fridland observes that "skilled agents regularly practice their skills with specific attention paid to various aspects of their exact movements and limb positions" (Fridland 2014). However, as usually happens in science there is some empirical evidence that suggests that attention to details may actually hinder performance. For example, a study indicates that expert golfers perform worse, when they direct their attention to the execution of their skill (Beilock & Gray 2012).

So far, I have introduced some support for the premises of my argument that the capacity of amusement cannot be trained. The premises where thus: Training a capability requires improving your control with regards to it, so that if you cannot improve the control of a capacity you cannot train this capacity. I have also defended the claim that improving control requires attention to covert elements. In the next sections, I want to make plausible the premise that we cannot improve the control of the capacity of amusement. The argument in favor of this conclusion incorporates a claim that I have already introduced in this section, namely, that improving control requires the attention to covert elements. I still owe an account of the cognitive mechanism that most plausibly underlies amusement.

6. Amusement - A sketch

Amusement seems to be a 'I-know-it-when-I-see-it'-concept. We all have some grasp of what it means when someone is amused and we all can give plenty of examples for stimuli that bring forth amusement: The hilarious joke that a friend just told you; the funny remark of a stranger in the subway; the weird looking dog on the street; the funny antics of comedians; the *Schadenfreude* and slapstick we may encounter during the day. All this usually generates the distinct reaction of amusement or mirth, whether it is accompanied by laughter or not. I have already stated in the classificatory remarks that I want the term "amusement" to refer to a mental state that is intrinsically pleasant. It is now time to spell out that notion on some more detail. Here are what I take to be the essential features of amusement. Amusement is a:

(1) cognitive process that results in an

- (2) affective experience that is
- (3) intrinsically pleasant

Please note, that these are necessary features of amusement and not an exhausting list of sufficient conditions. I also think that these features of amusement do not need any elaborate defense, so I will keep my remarks very short.

Ad (1): I think nobody would disagree with the claim that amusement involves a cognitive process. A plethora of empirical studies suggest that amusement is cognitive through and through (Goal & Dolan 2001; Watson, et al. 2007), with brain activation that is specific to the comprehension and appreciation of humor (Marinkovic 2011), involving brain areas responsible for reward and affect (Franklin & Adams 2011). In the next sections, I will say more about amusement and cognition and what account of the cognitive process of amusement I think is the most plausible.

Ad (2): Whether you think that amusement is a full-blown emotion or merely an "emotionlike pleasure taken in the perception of a certain range of incongruities" (Roberts 2003, 301), I contend that nobody would deny that amusement is an affective state with a characteristic phenomenology. To be amused is an experience of a particular kind with a particular "what-its-likeness" that can be distinguished from experiences such as being angry or the closely related feeling of being elated.

Ad (3): It is a conceptual truth that amusement is something that is pleasant (Hartz & Hunt 1991; Roberts 2003, 301) and enjoyable (Clark 1970, 28). After all, we would not call an experience 'amusement' if it were unpleasant.⁴⁰ It seems to be necessary that for amusement to ensue, the object is *not* appraised as threatening, frightful or annoying (Hartz & Hunt 1991, 299; Carroll 2014, 49). Some authors have even claimed that unpleasant emotions such as disgust preclude amusement (Smuts 2013).

More could be said to give a fuller picture of amusement. Some authors for example have addressed the issue of the formal object of amusement (Clark 1970; Scruton 1982) or whether the object of the mental state involved in amusement

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⁴⁰ Given that mixed emotions are possible, I do not wish to deny that something like 'unwelcome amusement' exists, where the amusement, although pleasant, is also experienced as somewhat unpleasant. For example when we feel that it is not appropriate to be amused in a given situation or we find that the joke to be racist or sexist but are still amused by it. Without going into details here, I think that in cases like these some other affective mental state, like shame, takes the amusement as its object.

always is an incongruity of some sort. However, I will be silent about these issues, because they are not important for the questions that I am addressing here.

7. Amusement and cognition

The idea that amusement is due to a special cognitive process has a long tradition and the list of authors who have contributed valuable insights for coming to grasp with this process is quite long. Some have considered amusement to be based on the cognitive process of resolving an incongruity (Shultz 1974), whereas others have considered amusement to be a two-stage process in which some expectation is violated by new information that is then re-interpreted by a new frame of reference or schema (Suls 1972). Some even speak of a "cognitive rupture" (Forabosco 1992, 55) that takes place in amusement because some stimulus does not fit the cognitive model that the subject has created about a situation. At least two authors have stressed that amusement is the experience of a sudden or rapid cognitive shift (Morreall 2009; Latta 1999). According to these authors, a cognitive shift occurs when there is a sudden change in perception or thought. Usually, people respond to this cognitive shift with confusion and sometimes anger. In amusement however, the cognitive shift is pleasant. Further, multiple studies in cognitive neuroscience also suggest that the appreciation of humor involves two core processes: First, a cognitive component relating to the detection and resolution of some incongruity and, second, an affective component relating to the feeling of mirth and reward (Vticka et al. 2013).

Like many other mental phenomena, amusement can, partly, be explained by the way the human brain operates and how information is processed. The brain is not passively registering what is going on in the world around us but it generates predictions and expectations concerning the events of the world. The human brain is a "sophisticated hypothesis-testing mechanism" (Hohwy 2013, 1) that constantly tries to minimize prediction errors. Predictions are made, then updated and revised in the light of new information. Given the time-pressure of the environment, predictions are occasionally made pre-maturely and mental shortcuts (so called heuristics) are deployed. Sometimes these predictions and expectations are faulty because of their pre-mature character. Weems for example distinguishes 3 stages that are key to amusement and all other forms of complex thinking: constructing,

reckoning and resolving (Weems 2014, 31f.). Constructing refers to the phase where the brain generates not only one but a couple of possible answers or solutions to a problem. At this stage expectations are generated. The stage of reckoning is the stage where false expectations are uncovered, which usually leads to surprise. In the case of amusement, this surprise is pleasant. The last stage, resolving, is characterized by a shift that integrates the new information, that is, the information that did not fit the expectation, into the already existing knowledge by creating a new frame of reference or perspective. As Weems points out, it is "not enough that we are shocked or surprised. Our humor must bring is someplace new, emotionally as well as cognitively" (Ibid., 59). So, following Weems, we might say that amusement is a byproduct of the brain that thrives on conflict and that amusement is one form of "conflict-resolution" (Ibid., 8).

Another way to think about the issue is in terms of frame-shifting (Coulson 2001) When we hear a joke an initial frame is construed that is based on the information that is conveyed by the text (of the joke) in combination with some general world knowledge retrieved from long-term memory. When the punchline of a joke is revealed, some expectation derived from that frame is violated and a frame-shift is triggered that relates the information that have previously been given in a novel way. In other words, our model of the world is adapted to the new information. To explicate, let me give an example joke that I take from Coulson: "When I asked the bartender for something cold and full off rum, he recommended his wife." Initially, the barroom frame is evoked, containing elements derived from our background knowledge about bars, bartenders and rum. According to Coulson, based on this background knowledge, we expect the thing to be recommended to be a drink. After all, what else would you ask a bartender for? The second half of this joke violates our expectation, which results in the creation of a new frame in which the predicates "cold" and "full of rum" pertain to the wife. In sum, successful jokes take advantage of these expectations that we create based on our frames.

Now, describing the process of amusement in terms of re-interpretation, violated expectations or as a pleasant cognitive shift is a first start but still does not give us a satisfying explanation. However, I want it to be noticed that all the accounts that take the cognitive side of amusement seriously acknowledge that some element that the subject of amusement is not aware of plays an important part in the explanation of amusement. In other words, some covert element seems to be crucial when it comes

to the cognitive process of amusement. In the next section, I will rehearse an account that explains the capacity for amusement in terms of a cognitive mechanism that incorporates this covert element. If this account is correct, then we have the required building block for the argument to the effect that we cannot improve the control of the capacity of amusement.

8. Amusement and covert elements

The computational-mechanistic account of Hurley, Dennett and Adams (2011) makes a strong case that the cognitive mechanism of amusement relies on covertly introduced elements. Keep in mind that I can only give an outline of their booklength proposal, which necessarily disregards some of its details.

In their book Inside Jokes, Hurley, Dennett and Adams give a proximal and ultimate explanation of the capacity for amusement. The brain constantly creates predictions and world-representations. Given that the brain is also constantly under pressure and sometimes takes shortcuts (as already hinted at in the section before) that are not always beneficial, it needs mechanisms that check for errors so that they do not "contaminate our world knowledge store" (Ibid., 13). Their claim is that amusement (or mirth) is one of those mechanisms. They dub it "debugging" mechanism because it checks for errors (bugs). Here is a rough outline of their theory: Borrowing from Fauconnier and Turner (2002), Adams, Dennett and Hurley employ the notion of mental spaces to elucidate how we comprehend situations. According to Fauconnier and Turner a mental space is a region of working memory (not an actual brain area) where activated concepts and percepts are semantically connected into a situational comprehension model. Sometimes the idea of mental spaces is likened to containers that delineate certain regions of thought or small conceptual packets. Keep in mind that mental spaces are not simply there, lying dormant if you will, but are constructed when you comprehend things, when you think abstractly and creatively. Mental spaces are created on-demand by a process called 'spreading activation'. The idea behind this is described as follows: "Initial semantic contents are activated by sensation in working memory mental spaces, and the process of perception and any deeper thought ensue from the diffuse triggering of related semantic contents and interference pattern therein" (Hurley, Dennett, Adams 2011, 101). Here is an example: If you are familiar with the play Hamlet then there is

a mental space for the story of Hamlet, its size depending, of course, on the degree of your familiarity with the play. This mental space is created by the activation of some semantic content, for example upon hearing someone talk about the famous line "to be, or not to be". Like the nodes in some web or net, hearing this line then activates related nodes and the activation spreads from node to node, thereby creating the mental space.⁴¹

Why do mental spaces matter and what do they have to do with cognitive errors and debugging? To see this, we have to turn to beliefs. Hurley, Dennett and Adams distinguish between various kinds of belief: An active belief is a belief that participates in working memory at a given time. A committed belief is a belief that we act boldly on, whereas long-term memory beliefs are acquired dispositions to have active working memory belief under certain circumstances. Given that a committed belief in working memory is likely to become a committed belief in long-term memory, the commitment to a wrong belief can lead to a faulty representation of the world. According to the authors, the task for the cognitive system is to find improper commitments before they turn beliefs into dispositions for active beliefs that are then deployed in future inferences. These inferences could possibly be unfortunate and in order to prevent the mind from making some costly errors when deploying its heuristics, a self-correcting mechanism has evolved that detects these false elements. This consistency checking mechanism "debugs" the faulty elements that have entered our mental space. The discovery of the false elements, so their account goes, is coupled to a reward system: The positive feeling that accompanies the experience of amusement. In a nutshell: For amusement (or mirth) to occur, several conditions must be fulfilled that are necessary and jointly sufficient: An active element has covertly entered the mental space and this element is endowed with epistemic commitment within this space. Subsequently, this element is diagnosed to be false within that space and this discovery is not accompanied by feelings that have a negative valence (As stated above, amusement is intrinsically pleasant).

After this rough outline of the debugging account, I now want to turn to the feature of the process that is important for my argument: The important feature is that the elements that turn out to be wrong are "introduced covertly—without drawing attention to itself on arrival" (Hurley, Dennett, Adams (2011), 118).

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⁴¹ This might raise the question of when spreading activation comes to an end. Given that this is not a question that needs to be addressed here, I refer the reader to Crestani (1997).

Metaphorically speaking, these elements slip through the cracks of attention. The information that entered covertly will turn into an overt element of inference when there is no other element in the network of the spreading activation that renders it dubious. That is, we are epistemically committed to the element as long as it is not challenged by other information. If attention catches the false commitment too early no amusement will ensue. You can appreciate the importance of the covertly introduced element when you think about cases where a joke fails to elicit mirth because the teller gave away too much information so that the punchline becomes too obvious. The idea of the covertly committed belief that is somehow invalidated does not only explain verbal humor like jokes, it also works in non-verbal episodes, where there is a belief that a person is committed to and which is then invalidated. Consider the case of a video call where, due to a bad connection, the picture of the person you are talking to suddenly freezes. Yet, you do not notice the freezes frame and keep talking because you are committed to the belief that the person on the other end of the line is still listening. The discovery that you are talking to a still image for some time will likely result in a chuckle and the feeling of slight amusement on your part, because the belief you were covertly committed to turned out to be false.

Although I think that the debugging account is the best explanation that is currently available when it comes to the cognitive mechanism that is at the heart of amusement, my argument to the effect that we cannot improve the control over the capacity of amusement does not hinge on the specifics of this particular account. A critic may not agree with the details of the debugging account but can hardly deny that a theory of amusement that is to be taken seriously should involve the idea that there is a covertly introduced element and that some invalidation of this element is crucial in order to explain the capacity of amusement. This is evidenced by the fact that in the history of theorizing about amusement a lot of scholars have recognized this in one form or another: It was either unstated background knowledge or assumptions or the violation of an expectation, the violation of some moral standard (Veatch 1998) or the putting together of two opposing but compatible semantic scripts (Raskin 1987). My point here is simply this: Whatever the specifics of a given theory of amusement, it should feature an element that slips 'under the radar', or in other words a covert element. Given our most plausible and powerful accounts of amusement, I suggest we have good grounds to accept the claim that the cognitive mechanism of amusement relies on covertly introduced elements.

9. Attention and amusement

With the structure of amusement on the table, we are now in the position to argue why practice cannot play a role in developing this capacity. Because amusement relies on covertly introduced elements, a lot of the familiar strategies that are available in training are futile because their goal is to bring covert elements to the fore. Take instruction and examples. Similar to Dreyfus, Van Lehn suggests that there are stages in the course of acquiring a cognitive skill (Van Lehn 1996). He distinguishes between an early phase, where the student is trying to understand the knowledge of the domain by reading up on it. In this stage the student is not yet applying this knowledge. In the second stage, called the intermediate stage, the student turns her attention to solving problems. The last stage is the so-called late phase where the student continues to improve in speed and accuracy as she practices. In the early phases of the acquisition of a cognitive skill, instructions and the study of problems that have already been solved play a crucial role. Instructions usually work with examples. The instructor or a textbook presents the problem along with the solution and the steps to attain it. From these examples students must then either gather the principles that are needed to solve the problem, or an instructor, by using the example to illustrate the application of the principle, gives the principle to them. Given that instruction and examples seem to play such a crucial part in the training of a capacity, how would someone go about it in the case of amusement? The obvious way is to make someone familiar with the principles that the joke or better types of jokes operate on. An instructor could explain the joke and also deliver the principles that it relies on. For example, a joke might employ semantic ambiguity or the activation of some linguistic script or cultural background knowledge.⁴² But how is this going to help when we encounter a joke that is based on the same principle? The person may have reached an understanding of how the type of joke works but this does not help her when it comes to amusement. Although she might appreciate the joke more because she knows how it operates, like when we appreciate some work of art more when we know how it achieves its effect, she will not be genuinely amused by the same joke, whose principles you just explained to her, nor will she be

⁴² Not only is amusement idiosyncratic but it is also culture-specific. Things that someone from a different cultural background would find amusing do not necessarily amuse me. So, it seems plausible that by immersing myself into another culture, I will be amused by cultural specific tokens of humor.

amused by future jokes just because she knows something about the principles that they rely on. Again, it might even be counterproductive because in virtue of her knowledge of the principles she might be too quick to anticipate the solution (punchline) of the joke.⁴³

Consider that someone really wants to improve the cognitive mechanism responsible for amusement. Assuming that the picture about the mechanism that I have outlined above is correct, how would that person go about it? She cannot simply deliberately introduce an element covertly into her mental space that she then epistemically commits to because the cognitive process of amusement demands that the element enters covertly, without her noticing it. In other word, the lack of attention is key here. Attention is the death of amusement because its cognitive process relies on the covert introduction and tacit commitment to certain elements. Another idea of how one might go about improving the capacity of amusement is by way of discursive cuing. As Buskell suggests, "discursive cuing is a handy catch-all phrase that captures the way in which propositional knowledge can function via subvocal utterances to focus attention. Such cues act as context-sensitive guides, orienting the performer to salient aspects of the environment and of an on-going skilled performance" (Buskell 2015, 1454). Further, discursive cuing is a deliberate re-orientation of attention due to automatic, rehearsed propositions" (Ibid., 1453). Discursive cuing highlights the role of propositional knowledge in the process of practice and deployment of skills. For instance, an athlete might say to herself things like "Remember to keep that arm straight!" in order to focus her attention on this aspect of her performance. One can also see that discursive cuing seems to be especially salient in practice sessions. Now, I want to suggest that such discursive cuing might be deployed when one wants to improve on the capacity of amusement. So, for example, upon reading some jokes one might say to oneself things like "Pay attention to the details of this joke!" or "Try to figure out why the next joke is amusing!". This discursive cuing and the focus of attention might then result in a lack of epistemic commitment to covertly introduced elements or the focused attention might result in the anticipation of the punchline. The result is the same: The cognitive process that underlies amusement is circumvented.

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⁴³ That is not to deny that a joke cannot elicit amusement when it is encountered repeatedly, that is when the subject remembers the punch line. Wyer and Collins (1992) hypothesize that this is because the repetition of the joke activates a different subset of implications then the original telling. Eventually, all implications are used up and the joke ceases to be amusing.

Consider the case of a botched performance. First a more familiar case where some bodily skill is involved: Say an archer missed her target. Although she might not have a clue what she did wrong exactly (Was it the arms, the hips, etc.?), she will likely be more concentrated and pay attention when she takes the next shot. As for intellectual skills, consider a case where a chess student did not make the correct moves and consequently looses the game. One way to go about this is to start from the beginning and pay attention to the steps taken in order to determine where she made the wrong moves. In cases where you fail to be amused the picture looks very different: In the case of amusement you cannot start from scratch and simply pay more attention as you read or hear the joke again. You already know how the story goes, which means you cannot commit to the necessary elements covertly.

Trying to practice amusement might even have the opposite effect in that it actually decreases your level of amusement. Say you read a lot of jokes of a certain variety or theme and always pay attention to how the joke "got" you, that is how the jokes made you commit to beliefs of a certain kind. Given enough time and experience you cannot be tricked anymore because you will not epistemically commit that easy. Put differently, you will "see it coming" because based on your experience you will anticipate what is going to happen. That is, your mental space will probably include the correct belief. This, of course, will result in you being not amused by the particular joke. To digress a little here, I think this is analogous to the phenomenon of being too familiar with horror movies: When you know what is going to happen, you are not as easily scared. If you, like me, have watched a lot of horror movies, you have probably picked up on a few artistic maneuvers with which directors and screenwriters intend to achieve scary affects. So, when watching certain scenes you will likely anticipate what is going to happen, which in turn lessens and sometimes annihilates the scariness of the outcome.

To recap: Elements that are attended to are not covert anymore. As I have defended in this section, we have good reasons to assume that we cannot improve the control over the capacity of amusement because improving control over a capacity requires attention to covert elements. Attending to covert elements, however, is not an option given our most plausible explanation of how the cognitive mechanism works. The constitutive features of the cognitive process of amusement account for why it attentive practice and amusement do not go well together. Training a capacity

requires improving control. If we cannot improve the control of a capacity, then we cannot train that capacity. Hence, the capacity of amusement cannot be trained.

10. Amusement as 'mental ballistics'

Apart from overt actions like grabbing a cup of coffee, there are also actions that are distinguished from overt bodily actions in that they do not involve any movement of the peripheral body. These actions are usually called 'mental actions'. There is considerable debate on what a mental action is. For example, Proust proposes that what a mental action is can be defined based on its goal, which is to be identified as particular mental events, mental states or mental dispositions. ⁴⁴ Examples for mental actions are solving a problem in a chess game, deliberating about something, imagining or recalling. Likewise, solving a problem (for example the so called nine dot problem) is a mental action. Strawson on the other hand claims that a lot of cases that others refer to as mental actions are merely so called 'mental ballistics': A process that is triggered automatically by conceptual or linguistic specifications. According to Strawson, deliberation and judgment are not actions but mere happenings. Most of our thinking is not a matter of action:

"[...] no ordinary thinking of a particular thought-content, conscious or otherwise, is ever an action. No actual natural thinking of a thought, no actual having of a particular thought-content, is ever itself an action. Mental action in thinking is restricted to the fostering of conditions hospitable to contents' coming to mind. The coming to mind itself—the actual occurrence of thoughts, conscious or non-conscious—is not a matter of action." (Strawson 2003, 231)

For Strawson, mental action is just stage-setting, such as calming a wandering mind, stopping a train of thought or blanking your mind:

"I also agree that the occurrence of our thoughts and choices can be partly caused by genuinely intentional mental actions on our part—the catalytic business discussed earlier, the girding of the mind to engage the problem at hand. But I see no reason to say that the operation of the mental system that is catalysed in this way, and that culminates in a thought or judgement, is itself a

(Proust 2001, 107).

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⁴⁴ "My definition of mental acts will thus supplement the general definition of an action with the conditions (i) and (ii): (i) the intentional content of a mental action is [that particular mental events, mental states or mental dispositions obtain as a causal consequence of the corresponding belief and desire]. ii) the mental events, mental states or mental dispositions to be obtained belong to the very subject who forms the corresponding intention."

matter of action, rather than being automatic and standardly involuntary." (Ibid., 247).

There are dissimilarities between amusement and paradigmatic mental actions. Mental actions usually bring something to awareness; for example imagining a scene or recalling a certain fact. It is not clear that amusement brings something to awareness in a similar fashion, other than that something is amusing to me. Further, in mental action there is some sense of control pertaining to how the process unfolds. In amusement, however, there is no sense of control of the process. Additionally, mental actions are effortful, whereas amusement appears to be automatic and effortless. In the light of these observations and in the wake of Strawson's remarks, I submit that amusement is more like mental ballistics. You may have the intention to be amused and subsequently engage in behavior that likely results in the desired mental state of mirth, but the operation your mental system is not itself an action. It is automatic mental processing.

One might object here that, in the light of what I just said about amusement and mental action, asking whether amusement can be trained is asking the wrong question because amusement is an automatic process and automatic processes, because they are unintentional and uncontrollable, are not trainable. Let me begin by saying that automatic processes are not completely independent of intentional and controlled processes. For example, a lot of automatic processes are started as a result of conscious and intentional processes. Some processes became automatic as a result of practice and attentive engagement. A lot of skills for example involve automatic behavior that was not automatic to begin with. Further, just because some features are automatic does not imply that the whole process cannot be brought under intentional control. For example, in an obvious sense, amusement sometimes depends on intentional and consciously controlled episodes: Telling a joke or engaging in behavior that elicits mirth, such as watching funny clips, often triggers amusement. There are other aspects of humor appreciation that are also subject to intentional control. Laughter is one of them. We can intentionally suppress laughter, although it is hard to accomplish sometimes.

One may further object that amusement occurs too fast for conscious intervention; so training it is out of the question because you cannot slow down in practice and deploy awareness and intervention. The same holds for fencing, where moves usually happen very fast which demand fast reaction in turn. However, practicing fencing

involves making moves slowly and deliberately, more and more automating the process, so that the reaction will be quick when it counts. Similarly, I suggest, there are ways in which you might go about training amusement by slowing down. Remember what I said above about discursive cuing.

11. Amusement: Automatic but not unintelligent

Amusement seems to qualify as automatic because it exhibits all the criteria that are usually brought forth in delineating automatic processes: They are unintentional, unconscious, uncontrollable and effortless (Fridland 2015; Bargh 1994). It is not necessary that a process exhibit all of the four features. However, just because a process is automatic does not mean that it is unintelligent. The same, I claim, goes for amusement. Following Fridland (2015) here, I want to say that the difference between intelligent processes and unintelligent processes is that the first need to be accounted for in semantic or psychological terms. The explanation of unintelligent processes on the other hand can proceed in mechanistic and causal terms without invoking concepts or semantics. What I have tried to show above, with recourse to Hurley, Dennett and Adams and other authors, is that the process of amusement is best accounted for in terms of concepts and semantic content. If this is correct, then amusement, so it seems, is an intelligent process.

There is some further ground to believe that amusement, although automatic, is not unintelligent. Generally, it seems to be the case that if a process is unintelligent, then this process is *not* cognitively penetrable. Further, just because a process is automatic does not mean that this process is not cognitively penetrable. In what follows I will show that amusement is cognitively penetrable, hence it is not unintelligent. What is cognitive penetrability? Pylyshyn (1980, 111) elucidates cognitive penetrability as follows:

"Functions are said to be cognitively impenetrable if they cannot be influenced by such purely cognitive factors as goals, beliefs, inferences, tacit knowledge, and so on."

In a more recent publication he offers the following explanation:

"If a system is cognitively penetrable then the function it computes is sensitive, in a semantically coherent way, to the organism's goals and beliefs, that is it can be altered in a way that bears some logical relation to what a person knows" (Pylyshyn 1999, 343).

That cognitive processes can causally influence perceptions is uncontroversial.⁴⁵ I take 'cognitive factors' to mean that the relation cannot be explained in purely causal terms but needs to be explicated in semantic terms. Cases of cognitive penetrability are cases where there is a *semantic* relation between the processing and the cognitive content. In order to be cognitively penetrable, the process needs to be sensitive to the content of cognitive factors, which include beliefs, desires, emotions and concepts. In other words, the experience is different in virtue of some cognitive state like a belief or desires.

One might be skeptical at this point because the host of texts written on cognitive penetrability deals with perceptual experiences. However, there is some ground to believe that non-perceptual processes are cognitively penetrable as well. Vance for example extends the definition of cognitive penetration to include emotions:

"Emotional states are cognitively penetrable with respect to some content or aspect of phenomenal character c if and only if two subjects (or the same subject at different times) can differ with respect to whether their emotional states have c as the result of a causal process tracing back to a cognitive state of the subject, holding fixed between the two subjects (i) the stimuli impacting their sensory receptors, (ii) the subjects' spatial attention, and (iii) the conditions of the subjects' sensory and emotional organs. As with visual experience, in some cases of cognitively penetrated emotion, a subject's cognitive states cause them to have an emotional experience they would not otherwise have had." (Vance 2014, 271).

Vance illustrates the case for cognitively penetrable emotions with the case of a person who, upon hearing a noise, experiences fear because of his belief that 'If someone else is in the house, they are an intruder'. The experience of fear would not have ensued absent this background belief. There are other emotions besides fear that are cognitively penetrable. Disgust is one of them. Evidence for this claim comes from recent studies that indicate that intentions can reduce the arousal by disgusting stimuli (Schweiger Gallo 2009; Schweiger Gallo 2012).

⁴⁵ My beliefs combined with my desire regularly motivate me to act, resulting in changed perception. See Stokes (2013).

Now, I submit that the emotion of amusement also fits the bill of being cognitively penetrable. Not only is it the case that sometimes we experience amusement because a cognitive factor causes us to have this experience that we would not otherwise have, but it is also the case that sometimes a cognitive factor can cause us not to have the experience of amusement. Consider here what Jordan and Partridge say about the moral shape of amusement. Moral considerations sometimes have the power to disable reasons to be amused. They say that "[...] in the case of the telling of a joke a properly sensitive agent might find that she lacks a reason altogether to find a joke funny in light of the morally salient features of the joke-telling context." (Jordan & Partridge 2012, 92). I think that this disabling or silencing can be made sense of in terms of cognitive penetrability. The process is sensitive to cognitive factors like beliefs (in this case moral beliefs) or desires. Because it is *what* the emoter believes and desires that influences the elicitation of the emotion or how the emotion unfolds.

Again, not only can a cognitive factor cause us to have the experience of amusement that we would not otherwise have, but cognitive factors can also disable the experience that we would otherwise have. It is not important here that the cognitive factors (like moral background beliefs) that penetrate our emotional experience are consciously accessible by the person. Moral beliefs and values can factor into an experience without us noticing their role.

To conclude this section, the cognitive penetrability of amusement provides some further support for the belief that the process of amusement, although automatic, is not unintelligent.

12. Conclusion and educational implications

In this paper I presented an argument to the effect that the capacity of amusement cannot be trained. My argument was driven by the idea that training a capacity requires improving the control over that capacity. Alas, we cannot improve the control over our capacity of amusement. If we cannot improve the control of a capacity, then we cannot train that capacity. I have introduced what I believe to be the most plausible account of the cognitive process of amusement. According to this account, covert elements are tantamount for amusement. Attention would be detrimental to these covert elements. Given that improving control requires attention to covert elements, we cannot improve control over the capacity of

amusement. Again, I do not wish to deny that the capacity of amusement may be improved by mere drill, which is simply being confronted with, and amused by, jokes or other humorous stimuli. My goal is more modest in that I argue that the capacity of amusement cannot be *trained* (in the sense outlined above). A further corollary of my argument taken together with the points about mental action and mental ballistics is that amusement is *not* a skill. Amusement is automatic and not trainable. However, amusement's automaticity does not mean that it is unintelligent.

Please note, that although I have argued that amusement cannot be trained, there are other things in the vicinity that I think are subject to training and education. So for example, it does not follow from my account that you cannot improve your ability to produce amusing material. First, I do not think that the ability to be amused is necessary for the production of funny material, although it certainly helps. You do not need to be able to experience pain in order to come up with painful stimuli for others. Also, the painter Eşref Armağan, who was born without eyes, shows that in order to produce something that excites a particular experience in others, you do not need the ability that is necessary for it. So, even in the complete absence of an ability to be amused, you could still come up with funny material. There are ways to distinguish between amusing and non-amusing material without being amused by it yourself: You can simply present the material to other people and pay attention to their reaction. So, even without the inability to experience amusement you can improve your skill of producing material that is funny to others. Second, coming up with funny material is a semantic skill, similar to creating poetry. Semantic skills are skills that primarily involve the manipulation of semantic content and where motoric components are not essential (Buskell 2015, 1455). Creating jokes is the manipulation of semantic vehicles par excellence. Because it is a semantic skill, the creation of funny material can be practiced.⁴⁶

I will now close the paper with brief considerations regarding some educational implications of my account. It follows from my account that, because amusement cannot be trained, every sensible measure that seeks to shape or influence the capacity for amusement needs to resort to indirect means of influence. One indirect means concerns the normative framework of the individual. Let me elaborate on this a little here: Robert Roberts claims that to be amused means to construe a situation pleasantly as having an appropriate impropriety or limited incongruity. And further,

 $^{^{\}rm 46}$ For more on how to practice semantic skills see Buskell (2015).

he claims that amusing is something "which is at most minimally tragic, disgusting, immoral, or otherwise painful, appears in a delightfully incongrous aspect" (Roberts 2003, 308). Although he does not think that amusement, in contrast to other emotions, is based on a concern, Roberts admits that amusement can be blocked by a concern. A concern is either a desire or an aversion but it can also be an attachment or interest from which these desires emanate. Others, like Morreall for example, have claimed that in order to be amused, a certain sort of distance or disengagement needs to be present (Morreall 2009, 52 f.). These two accounts hint at an important aspect regarding humor and amusement. First, there is a certain violation involved. Second, there is also a certain distance to this violation. Now, we can look at empirical evidence that suggests that both Roberts and Morreall are on to something. The so-called benign-violation theory developed by Warren and McGraw states, as its name indicates, that amusement is elicited by a benign violation (McGraw & Warren 2010). That is, a violation of a norm for example is benign when there is another salient norm that suggests that this violation is acceptable. Further, a violation of a norm is benign when the person is only weakly committed to the norm that is being violated, or when the violation is psychologically distant. For example, something is psychologically distant if it is only hypothetical. Warren and McGraw tested their theory in a series of experiments and the empirical evidence seems to be on their side (McGraw, Williams, Warren 2013).

If what I have just outlined is correct, then it has some interesting pedagogical implications. I have introduced the benign violation theory because it gives us a glimpse at a possible indirect way of how the capacity of amusement might be influenced. Based on the idea of benign violations I want to suggest that the appreciation of humor that involves the violation of some moral code or norms that you hold can be shaped if you adjust the commitment to those particular norms or the moral code. If the commitment is less strong, then the humor's violation will be less severe, making it more amusing. So the pedagogical task here is to learn not to take your norms and moral code too seriously.

Here is another educational implication of the account that I have presented in this paper: Remember Bob from the introduction? He wanted to be amused more often. There is some good news for him because amusement, although not trainable, seems to be shapeable. There is a way to get to the point where you are likely amused by more things. In large parts, the process of amusement depends on background knowledge. If you want to find more things amusing, you should consider broadening your knowledge base. Chances are that the more you know, the more amused you will likely be in the course of your life. So, the educational implication is that, if you seek to increase the amount of amusement in her life, one way to go is to broaden your knowledge base. This of course is a continuous and probably lifelong educational task.

Chapter Five

The previous chapters addressed rather particular problems pertaining to amusement and philosophy of humor. The special concern of this last chapter is to bring philosophy of humor into contact with other domains of philosophical inquiry.

In the first paper of this chapter, my co-author and I ask whether scientific evidence can prompt us to revise philosophical theories or folk theoretical accounts of phenomena of the mind. We will argue that it can—but only under the condition that they make a so-called 'ontological commitment' to something that is actually subject to empirical inquiry. In other words, scientific evidence pertaining to neuroanatomical structure or causal processes only has a refuting effect if philosophical theories and folk notions subscribe to either account. We will illustrate the importance of 'ontological commitment' with the 'neuroanatomical approach' to amusement as proposed in a recent paper by Palencik (2007). We will show that the scientific evidence presented in said neuroanatomical approach has no bearing on the conceptual issues, in that the philosophical theories and folk distinction that are criticized do not subscribe to any account of the underlying neuroanatomical structure or causal processes. Our suggestions in this paper are not limited to philosophical accounts of humor but apply to the relationship of philosophy, common sense and science in general. Admittedly, this paper on the ontological commitment is different from the other papers of this thesis in that it does not concern amusement or humor per se but uses a particular approach to the emotion of amusement as an example case for ontological commitment. However, given that the ideas developed in this paper apply to conceptual theory in general, they will also prove valuable for theorizing about humor and amusement.

The second paper of this chapter attempts to build a bridge between philosophy of technology and philosophy humor. I show that philosophy of humor can be fruitfully linked to philosophy of technology: First, I will take an account from a seminal figure in the philosophy of humor, Henri Bergson, and bring out the merits of this account for a philosophy of technology. I will show that Bergson's account of the comic can give us some interesting insights about our relation to technology. Second, I will show that humor and the comic open up a new perspective on technology that may enable new ways of thinking about our technological culture.

Who is afraid of commitment? - On the relation of scientific evidence and conceptual theory

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1. Philosophy and empirical science

While limited in scope, there are a couple of ways in which philosophy can have an impact on science and support scientific inquiry. An obvious contribution from philosophers is the work they do in advancing theory building. For example, philosophers may generate new hypotheses by way of thought experiments or they can play the role of a mediator in the clash of theoretical positions. Philosophers may also act as a "building inspector" (Van Gelder, 1998) who investigates the theoretical and methodological assumptions that are the foundation of science, by articulating, inspecting, and if necessary reconstructing the conceptual toolkit. Philosophers might also assume the role of a unifier of the field who illuminates the relation between various disciplines and levels of explanation. Last but not least, philosophers can also get actively involved in experimentation, as for example in the so called "front-loaded phenomenology" (Gallagher, 2003) where insights from phenomenology are used to inform the experimental design.

So, it seems that philosophy can have at least a moderate influence on the sciences. The question of how the sciences and the empirical evidence that they produce have a bearing on philosophy, however, is not so easily answered. Given that the success of science is visible and ubiquitous, ranging from interesting insights into the nature of things to useful results for the development of technology and treatment for various ailments, someone might propose that common sense accounts

and philosophical theories can be overturned by scientific evidence. The pull that empirical evidence has on the eagerness to revise non-scientific accounts can be illustrated by using various studies from the emerging field of moral psychology: In a famous case about our attitude regarding incest, Haidt, Koller and Dias (1993) report that people stick to their initial intuitive judgment that incest is morally inappropriate even when confronted with evidence that render their reasons for holding that view void - when the usual reasons for taking incest to be morally wrong had been excluded from the scenario. This "moral dumbfounding" (Haidt, Bjorklund, & Murphy, 2000) is taken to indicate that our intuitive and emotional responses mislead us and that our rational faculties do not have the last word, thereby turning the common view that we make our moral decisions in a rational fashion into a suspicious position.

Another example comes from the field of so-called situationist psychology. It has been repeatedly shown that extra-moral factors influence our moral judgment a great deal. Induced disgust, e.g. by being seated at a dirty desk while filling out a questionnaire makes moral judgments more severe (Schnall, et al., 2008). A recent study even suggests that our moral self-control is imminently reduced over the course of the day. In other words, we are more moral in the morning (Kouchaki & Smith, 2013). People even confabulate when they are asked to give the motives for their actions and choices. In a classic experiment Nisbett and Wilson (1977) asked participants to choose from four pairs of pantyhose the one with the highest quality. What the participants did not know: All the pantyhose were exactly the same. After they had made the choice they were asked to elaborate on the reasons for their choice. People claimed that they had chosen the pair because it was stronger or more elastic then the rest. Given that the pantyhose were identical, the responses are post-hoc rationalizations. The reasons that participants gave for the choices they made cannot be the reasons why they made that choice.

Some authors claim that these and other findings of moral psychologists pose a serious challenge for some of the views that philosophers hold about the freedom of the will or responsibility (Sie and Wouters, 2010). A lot of the studies purportedly show that we are not as rational as we think we are and that reasons are not guiding our actions. Our moral reasoning is post hoc and moral judgment is influenced by irrelevant factors that escape our attention in the situation. The seemingly inevitable conclusion is that our moral behavior is governed by unconscious automatic

responses that are triggered by the social environment. Thus, on the account of moral behavior and judgment that situationists put forward, reasoning cannot adequately explain our moral judgment. Hence, common sense and rationalist philosophers are wrong in claiming that we act for reasons. At best, providing reasons is better described as a post hoc rationalization of our behavior.

We will now briefly introduce two more examples from other areas than moral psychology in order to show that the idea scientific results might bear on nonscientific accounts is not limited to that domain. The dominant view in philosophy (and science as well) on painful episodes is that unpleasantness and motivational aspects are sufficient for pain and that these two features are essentially related. In a recent paper, Corns (2014) proposes that this dominant view needs to be rejected in the light of neurobiological and neurobehavioral findings. Unpleasantness is not essentially linked to motivational aspects and the two features are insufficient for painfulness. For our next example (which we owe to Richardson (2013)), consider that some believe that science can disconfirm the common-sense view that taste is a distinct sensory modality by showing that when we taste we actually (at least partly) smell certain flavors. For example, Auvray and Spence (2008) claim that we make the "constant error, when eating, of attributing to taste what really belongs to the sense of smell" (p. 1023). Further, in his book "About Time", astrophysicist Adam Frank suggests that physics since Einstein may have proven the common-sense notion of time wrong (Frank 2011, ch. 11).

We have introduced all these examples in order to show that there are scientific results that might be taken as a stumbling block for non-scientific accounts in philosophy and common sense.

Now, we think the important question we need to ask in this regard is whether it is justified to revise philosophical theories or categorizations in the light of scientific evidence.

Let us call the position that science can overthrow non-scientific accounts "Overturn" and characterize it as follows: [Overturn] Scientific evidence prompts us to overturn, drop or modify philosophical or common sense accounts and categorizations.⁴⁷ But it is obvious that not every piece of scientific evidence will be

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⁴⁷ It might be objected that it is unfair to mention common notions, folk concepts and folk psychology in one breath with philosophy, given that there are important differences between them. Although we believe that philosophy is at least partially informed by common sense views and folk concepts, we also think that there are important differences, for example in terms of intellectual depths and conceptual clarity. There is much more to

equally persuasive and a good reason for us to overturn anything. A new piece of evidence on the geological structure of the moon has no bearing on how we think about how other people think and act. Neither does it affect the way we classify emotions and or other mental phenomena. Scientific evidence can only falsify something if there actually is something to be falsified and the evidence pertains to the phenomenon in question. We will provide an argument to the effect that the position of [Overturn] only makes sense if the philosophical account is actually ontologically committed to an empirical account of how the world works. The combination of this position and [Overturn] looks as follows:

[Ontological Commitment] A philosophical account (or folk theory) is 'vulnerable' to scientific evidence and should be revised, if it makes (i) an ontological commitment to a certain empirical account of how the world works and if (ii) scientific evidence shows that this empirical account is wrong and the world is different.

In the following, we will provide some background on the idea of ontological commitment and introduce how we intend to understand it. To illustrate the importance of our account we will then focus on a recent neuro-anatomical approach to amusement presented by Palencik (2007). Here the author claims that, in the light of scientific evidence, certain positions regarding amusement are false. Yet, as we will show, his argument is not convincing, because the accounts under attack do not make ontological commitments of the sort required for his argument to go through.

2. Ontological commitment: Some distinctions

But what do we mean by "ontological commitment"?⁴⁸ Philosophers have been of a lot of minds about the issue of ontological commitment and there are several ways in which this notion might be cashed in. In the following section we will briefly introduce some of these ways while introducing some useful distinction concerning ontological commitment along the way. After that, we will state how we intend to use

be said about this then we will be able to or need to here. However, we take the philosophical views we are presently dealing with to have a sufficiently similar relation to empirical evidence as common sense and folk notions. And that is all that matters for the argument that we put forward.

⁴⁸ We could have chosen a different term but we think 'ontological commitment' conveys the stronger connotations to things that we subscribe to or are committed to in the real world, such as friends, partners and worldviews. We hold the belief that grounding abstract concepts in the lifeworld of the reader should be a staple of academic writing, because it makes the text more accessible. See f.e. Sword (2012). Another term that we were thinking about using instead of 'ontological commitment' was "descriptive assumptions", defined by Browne and Keeley as "beliefs about the way the world is" (Browne and Keeley, 2007, p. 71).

the concept of ontological commitment. We think this detour is necessary in order to get a clear view on the idea of ontological commitment. So please bear with us while we dwell on this for a moment. Please note that considerations of space do not allow us to enter into the depth of the metaphysical discussions surrounding ontological commitments, nor do we think it is necessary for our purpose. Hence, we will keep it brief and paint the picture in broad strokes.

2.1. Quinean beginnings

An inevitable figure when talking about ontological commitment is Quine. Because ontology is concerned with whether something exists or is real, Quine construed ontological commitments in terms of 'what there is' (Quine, 1948). That is, an ontological commitment is a commitment to the existence of some entity. A nominalist for example denies the existence of mathematical objects such as numbers, whereas realists hold that they exist (Church, 1958). Quine's own proposal is that the ontological commitments of a theory are reflected by the variables that are used in the quantification of a theory. In other words, the values of the variables of a theory determine what there is. When we accept a theory we are committed to "what the theory says 'there are'. And, we determine what a theory says 'there are' by formulating it in first-order predicate logic and picking out the resulting existentially quantified sentences" (Dieveney, 2008, p. 2). As a result, when we accept a theory we are ontologically committed to the objects that are required to satisfy these existentially quantified sentences of the formalization.

2.2 Implicit and explicit commitment

It is common to distinguish between two different types of ontological commitment: The first is an explicit ontological commitment; the second is an implicit ontological commitment. Echoing Quine's account, we can start by saying that the ontological commitments of a theory are those explicit statements that assert 'what there is'. For example, a theory might include such existential claims like "there are atoms" or "Ogres exist".

Now, these assertions about the existence of entities signify the explicit ontological commitments of the theory. Explicit commitments are "what is claimed to exist in the course of propounding the theory" (Peacock, 2011, p. 80). But as Peacock correctly observes, we are not exclusively interested in the explicit existential claims that a theory makes but also in its "ontological costs". Consider a theory that assumes the existence of some entity but without making any existential claims on its behalf. Or think of a meta-theory that states that some other theory is true but does not make existential assertions itself. In cases like these we would want to say that the meta-theory is committed to the entities of the theory it is about. So clearly, the notion of explicit ontological commitment is insufficient to get the full ontological picture of a theory. Hence, there is more to theories than what can be captured with an eye only at their explicit ontological commitments. What we also want are the theory's implicit ontological commitments, or its ontological costs. The implicit commitments are either about the things that exist given the theory is true or about the "ontic preconditions" (Peacock, 2011, p. 84) that are required to exist to make the theory true.⁴⁹

Of course, our relation to theories can be manifold. We can accept a theory to be true, we can merely entertain the possibility that a theory is true or we can treat it as a work of fiction. The last two of these attitudes towards a theory do not commit us to the commitments of the theory. When we commit ourselves to a theory, however, we also inherit its ontological commitments (Michael 2008, p. 57) as long as these commitments are epistemically accessible. Also, as you have probably surmised from the example claim about Ogres above, ontological commitments can be made independently from the actual existence of entities or their possibility of existence (Michael, 2008, p. 44). Otherwise, a theory would not have any ontological commitments unless the objects it is committed to actually exist. But to have a workable notion of commitment, we want to allow that a theory can be committed to entities that do not exist, such as the famous Phlogiston or mythical creatures like unicorns.

⁴⁹ According to Peacock, the notion of implicit commitment enables us to explain ontological commitment in terms of (modal) entailment: "theory (T) is ontologically committed to Fs iff (T) entails that Fs exist" (Peacock, 2008, p. 104). Robert Brandom also distinguishes between two commitments (Brandom, 2000, p. 174). The first is to explicitly assert something, but there is also a consequential commitment to the entailments of a claim that you endorse. We think that Brandom's distinction of the two ways of commitment aligns neatly with the difference between implicit and explicit commitment introduced in this section.

2.3 Descriptive and normative commitment

Someone might argue that there is more to theories than what they are *actually* committed to and that some theories also *ought to* be committed to something. Here we have a sense of commitment that extends into the *normative* realm and goes beyond what a theory is in fact committed to. The distinction that lurks here is between normative and descriptive commitments. Dieveney identifies a kind of intellectual dishonesty that he calls 'ontological infidelity'. Ontological infidelity is the "failure to align our descriptive ontological commitments with our normative ontological commitments" (Dieveney, 2008, p. 7). Commitments in the descriptive sense are the commitments we are endorsing based on what we actually do. Dieveney claims that this also holds true for our ontologies and scientific practice because there might be a mismatch between what a scholars are committed to in practice and what they should be committed to in the normative sense. Scholars might even deny something that they take for granted on other occasions, which will result in said ontological infidelity.

3. What we are committed to. Our version of ontological commitment

After this detour into the debates and distinctions concerning ontological commitments, it is now time to clarify how we will understand ontological commitment. Because it is the relation of scientific investigation and non-scientific accounts of a phenomenon that interests us here, we will treat 'ontological commitment' as either an endorsement of (1) a certain scientific account of some phenomenon, or (2) an underlying empirical structure that gives rise to a phenomenon (such as neural structures may give rise to mental phenomena), or (3) the existence of specific causal processes, or (4) the existence of some empirical object. In other words, the ontological commitment we are interested in is a subscription to something that empirical investigation can show to be the case or not to be the case. For the argument that we are making here, we are not so much interested in all the existential assertions of a theory or of an account (which might also include non-actual beings), but to what empirical elements a theory subscribes itself to.

Granted, a folk account or philosophical theory of something can be committed to many things. To name just two: A folk physical understanding of the heavens is committed to the existence of the planets, whereas a folk psychological concept of other minds is committed to the view that other people have feelings, desires and beliefs that are sufficiently similar to your own. Based on the distinction between explicit and implicit ontological commitments (what Peacock calls ontological costs), we propose that an account is not vulnerable to falsification or revision by empirical findings as long as it does not have either explicit or implicit commitments to underlying empirical entities, such as physiological mechanisms or neurobiological correlates in the case of mental phenomena or atoms, forces and so on in the case of physical phenomena.

One way to think about the relation of non-scientific and scientific theories is in terms of reference. According to the contextual (Ramsey 1929; Duhem1906/1991, p. 183; Carnap 1956; Feyerabend 1962, p. 88) or holistic character of theories (Quine, 1953; Quine, 1960) it is the whole network of propositions that defines the theoretical terms of a theory and therefore the referents of these terms. Assuming that a non-scientific account is a theory,⁵⁰ one might want to claim that if any statement of the theory turns out to be false, then the theory is not uniquely satisfied and the terms loose their referents (Nudds 2001, pp. 174f.). This is the eliminativist dream (cf. Churchland 1981) that whenever a scientific theory comes along and differs from the folk theory, the terms of the latter lose their referents and denote nothing.

The strong version of holism, however, is not tenable. Even if you do not possess a true description that uniquely picks out the referent of a term, you can successfully refer to the referent (Putnam 1975). From the falsehood of a theory the non-existence of its objects does not follow (see Stich 1998, ch. 1). For example, the falsehood of Greek astronomical theories does not sustain the claim that the moon does not exist. Accordingly, a theory does not lose its referent only because parts of it have been refuted. Hence, we do not want to insinuate that Palencik, whose argument we will criticize later, subscribes to this account. Instead, we take him to subscribe to the view that some of the beliefs we have about the referents of these terms are wrong and therefore our categorizations need to be adjusted and revised according to the

 $^{^{50}}$ For the view that folk psychology is a theory see Sellars 1997, pp. 90-117; Davidson 2001, p. 222; Fodor 1989, p. 7; Churchland 1981.

evidence. However, he gives no argument why scientific evidence is the right kind of evidence to push us in this direction.

Following the distinction regarding the different kinds of commitments that we introduced in the last section, we think two different aspects should be distinguished: On the one hand, the commitment can be explicit, on the other hand, the commitment may be part of the ontological costs, in that the empirically testable claims follow from or are entailed by the philosophical account. For this reason we will call them [Explicit] and [Entailment], respectively.

One way in which science has a direct bearing on philosophy is when a philosophical theory explicitly claims something that scientists can put to the test. Hence, we will put the condition succinctly as follows: [Explicit] A philosophical account (or folk theory) is 'vulnerable' to empirical evidence and should be revised if it makes explicit empirical claims or existential assertions.

A classic example for explicit empirical claims in folk accounts comes from what has been called 'folk cosmology'. Namely, the idea that the sun circles around the earth is subject to falsification via scientific observation and astronomical calculations. To further illustrate our point, we will use a well-known example from philosophy's cabinet of curiosities. In his Treatise of Man the father of modern philosophy Rene Descartes claims that the pineal gland is the seat of the soul (Descartes, 1985, 99-109) and the place where the body and the soul interact. According to Descartes, the soul enables intellectual memory (that is memory contained in the soul and not requiring interaction with the corporeal), which is necessary for the acquisition and use of human language (Joyce, 1997, pp. 385 f.). The use of meaningful language is also what distinguishes humans from animals, which Descartes regarded to be mere automata. Hence, if the pineal gland were absent, the soul might still be able to form memories and link meaning to utterance, but given the severed link between soul and body, the soul could not prompt the body to produce an utterance based on that memory. Thus, he subscribes to a view about the connection between the soul and the body that is empirically falsifiable. Now, although people with problems related to the pineal gland may face some serious hardship, like increased anxiety and a disturbed immune system,⁵¹ people

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⁵¹ This is due to the over- or underproduction of melatonin, for which the pineal gland is responsible (Macchi 2004).

born without one are able to acquire and use the human language.⁵² For this reason, Descartes's account can be empirically refuted; on top of his mistaken anatomical views about the brain and the pineal gland and the philosophical problems of his substance dualism, of course.

Philosophical investigations do not always make explicit empirical claims like Descartes and his pineal gland. Sometimes we can draw some empirical conclusions from a philosophical account, which can be subjected to empirical scrutiny. Thus, in addition to the above condition of [Explicit] there is a second way in which accounts from outside the natural sciences, such as philosophical or folk theoretical accounts, are subject to empirical counter evidence: [Entailment] A philosophical account or folk theory is 'vulnerable' to scientific evidence and should be revised if it *entails* empirical claims.

As an example, consider the so called 'relief theory' of amusement by Sigmund Freud (1928).⁵³ In short, Freud argues that jokes can be used to overcome the 'mental censors' that repress certain thoughts, resulting in the release of the 'psychic energy' that was originally needed for the censors. The sudden relief of that energy, and therefore a reduction of tension, is materialized in laughter.⁵⁴ In the wake of Freud, psychoanalytic theories claim that hostile humor masks our destructive instincts or impulses while acknowledging that humor has a positive function as well: It allows to express and satisfy unconscious, socially unacceptable impulses in this release of hostile impulses.⁵⁵ Now, besides being explicitly committed to the existence of exotic mental phenomena such as mental censors and a commitment to a hydraulic idea of how the mind works in terms of flow and discharge of energy, this line of thought has implicit ontological commitments in the sense of ontological costs that we have introduced in section 2.2. Specifically, it entails empirically testable consequences. One empirical upshot that follows from it and which needs to be true in order for the theory to be correct is that we should expect hostile humor to

⁵² Henderson and colleagues (Henderson et al., 2007) report about a girl whose pineal gland did not develop due to a genetic defect. Despite being behind in her mental development, she showed neither language nor motor problems nor behavioral difficulties.

⁵³ Please note that this theory builds on his earlier work from 1905, which is a surprisingly entertaining treatment of various jokes and the psychological mechanisms that Freud deemed responsible for them (Freud, 1990).

⁵⁴ Freud's account is more nuanced than we can do justice to here. For a good description of the different laughter situations that Freud distinguishes see Morreall (2009, p. 17).

⁵⁵ For more on psychoanalytic theories see Ferguson et al. (2008).

decrease aggressive behavior and negative stereotypes. But research shows that hostile humor is actually positively correlated with expressions of aggression.⁵⁶

It is worth pausing at this point to introduce one more example of [Entailment]. In his seminal paper 'What is an emotion?', William James argues that emotions are nothing but the perceptions of bodily perturbations. He argues that "[...] bodily changes follow directly the Perception [sic!] of the exciting fact, and that our feeling of the same changes as they occur IS [sic!] the emotion" (James, 1884, p. 189). James's account entails some hypotheses that are empirically testable. To name just one here: His account entails that we can specify emotions via the somatovisceral arousal pattern that is perceived by the subject. However, the findings of various studies suggest that this view is not tenable.⁵⁷

Now that we have set the stage and presented conditions under which empirical evidence can have a substantial impact on philosophical accounts, we will concentrate on a recent argument that uses empirical results to refute certain philosophical accounts that claim that amusement is not an emotion. Based on the idea of ontological commitment that we have proposed here, it is only a small step to show why this particular argument is on the wrong track. It is important to note that although we will mainly concentrate on the argument and claims of one particular author, it is just a 'token opponent' of sorts; a stand-in if you will in order to demonstrate and substantiate our claim that only if there is an empirical commitment can scientific evidence overturn common sense notions and philosophical reasoning.

⁵⁶ Ryan and Kanjorski (1998) for example found that sexist humor is positively correlated with sexual aggression. Maio, Olson and Bush (1997) could show that reciting disparaging jokes about a group increases the negative stereotype about this group. Further, for people that are already highly prejudiced toward a group, disparaging humor increases the tolerance regarding discrimination of members of that group (Ford and Ferguson, 2004). ⁵⁷ The criticism of James account based on empirical studies has a long tradition. As early as 1927, Walter Cannon (1927) used facts grounded in empirical research to argue against William James. Here are some of his points of critique: visceral changes are to slow to be the source of emotions, the total separation of viscera from central nervous system does not alter emotional response, same visceral changes occur in very different emotional states and non-emotional states. Further, the artificial induction of visceral changes typical of strong emotions does not produce them. There are also Schachter's and Singer's elaborate experiments, which are one of the most well known examples of empirical critique (Schachter and Singer, 1962). Please not that there is scientific evidence against the strong version of both James's theory and Schachter and Singer's counter proposal (Barrett et al., 2004). However, the jury is still out on whether emotions are distinct pattern of bodily changes. Adherents of the affect program account of emotion believe that at least some emotions can be characterized by distinct patterns of physiological changes. Griffiths (1997) for example suggests that there is a distinct affect program for each of these emotions: surprise, fear, anger, disgust, sadness, and joy (1997, p. 97). Further, Prinz (2006, p. 72) also points out that scientific evidence is suggestive of the fact that emotions are physiologically distinct.

4. Is Amusement an Emotion?

4.1. It's a funny thing, amusement

We would like you to imagine that you are at a party and somebody tells a funny story. You can feel the tension building up inside you as the story moves to its conclusion, where you suddenly burst out in laughter. Now picture yourself in one of those situations in which someone says: "Have you heard that one...?" followed by a joke. Let us assume the joke that the person tells you is a good one and therefore triggers what is usually referred to as amusement, sometimes also called mirth. Would you call the sum of this pleasurable experience - the elated and light feeling of amusement, the increased heart rate, the laughter with its significant pattern of discharging the air from your lungs - an emotion?

There has been considerable debate on how amusement relates to emotions. There are at least three camps concerning the question whether amusement is an emotion. We can find authors that argue that amusement is an emotion, scholars that claim that it is not and others that take some kind of middle ground between these two camps. In the following section we will briefly examine some of the important contributions to this debate. Before we begin we want to briefly clarify the concepts that we will be using in the following section. Unless explicitly stated otherwise, we will use the term 'amusement' to refer to the intrinsically pleasant affective mental state that we usually have in response to something that is funny.⁵⁸ This is sometimes called the feeling of humor, the humor response or mirth. We take the humorous to be a deliberately or non-deliberately created stimulus in order to trigger amusement. The foremost examples are jokes and various comedic performances. So obviously, we are not only amused by humor because other things than jokes, slapstick or comedy can evoke amusement. It also needs to be noted that laughter and amusement are not the same thing, although laughter is usually an indicator for amusement. But although humor often causes laughter and amusement, we can be amused without laughing out loud and we sometimes laugh without finding something funny, as in tickling.

Carroll (2014, pp. 55-76)

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⁵⁸ All debates on what constitutes the formal object of amusement aside. See e.g. Scruton (1982); Jones (1982);

Before we proceed to introduce in some more detail what we consider to be the three key positions on whether amusement is an emotion, we would like to make some remarks about why this issue matters. After all, why should someone who is completely unfazed by whether amusement is an emotion care about the answer? We think it is important because it matters how emotions relate to each other and how emotions relate to other non-emotive mental states. Roberts (1988) suggests that the question of whether amusement is an emotion is interesting because it asks us to elucidate the "grammar of these two obviously related concepts" (p. 269). We think what Roberts has in mind when he talks of grammar here is the internal connections of the concepts and the mutual ground that they cover. The knots and threads of the conceptual network concerning emotions and mental states is a significant philosophical issue. It is important to clear conceptual confusion and correct the intuitions that we have concerning our mental states and emotions. Whether amusement is an emotion also has practical implications for the study of amusement. The standpoints and insights that have been achieved in the examination of emotions can be used to shed light on amusement too.

4.2. Philosophers on amusement: To be, or not to be an emotion, that is the question

Undeniably, amusement and emotions have a lot in common. A strong initial motivation to include amusement among the emotions is that like other emotions, amusement has a distinct phenomenological profile (although, to our knowledge, no author has used this profile in order to argue for the claim that amusement is an emotion). Amusement feels different from other emotions. Sharpe (1975) presents another seven parallels between amusement and standard emotions. The first parallel is that amusement and emotions both have an intentional object. Second, amusement and emotions both come in degrees: We can be more or less amused like we can be more or less frightened. Third, we can suppress the behavioral and bodily manifestations of emotions, and we can also suppress them when it comes to amusement. Fourth, we can deceive ourselves about having an emotion and, although less common, we can also deceive ourselves about being amused or not. Fifth, many emotions are intrinsically pleasant, and so is amusement. Sixth, in emotions, cause and object need not coincide. When you are angry because

somebody mistreated you, you are angry with this person but you are not angry at the act of mistreatment. The same is true of amusement: The object and the cause of amusement need not coincide, although the object usually is the cause. For example, the physician might be the object of your amusement while the effect of nitrous oxide is the cause. The seventh reason that Sharpe offers to convince us that amusement is an emotion is that both emotion and amusement are amenable to cultivation. We can develop and cultivate a sense or taste for certain kinds of humor like we can cultivate a taste for certain emotions.

In a more recent work on the feeling aspect of humor, Chafe (2007) proposes that amusement, or what he calls 'the feeling of non-seriousness', shares general important properties with other emotions. Among other features he mentions are that amusement is also triggered by events that are external and beyond the control of the subject, that amusement is also contagious and that amusement also seems to be universal. Further, in his overview article on the philosophy of humor, Shaw (2010) identifies and attacks the widespread assumption that a cognitivist account of emotion (that is, focusing on beliefs and judgment) is the right way to come to terms with amusement. Based on the somatic or perceptual theory of emotion put forward by Jesse Prinz, Shaw opts for a theory of amusement that associates it with some internally registered bodily states. But there are also some authors who take for granted that amusement is an emotion without arguing for it (Sauer, 2011).

On the other side of the spectrum we find scholars who argue that amusement is not an emotion. One of the foremost proponents of this view is certainly Henri Bergson, who is not so much concerned with amusement but with the comic and how humor is created. Although Bergson does not give a definition of the comic and laughter, we take him to refer to laughter as the expression of amusement about something that is comical or humorous. According to Bergson, emotions and amusement are incompatible. Bergson's reason for thinking that emotions and amusement are antithetical is that affective attachment to the object or high sympathy seems to cancel out amusement. We think that this has some initial plausibility. After all, certain emotions indeed seem to block amusement. Consider the case when a friend or loved one slips and gets hurt. In cases like this your affective attachment to the object cancels out amusement, at least most of the time. When limited to cases where there is a strong affective attachment to the object and some happenstance infringes on the concern we have for this object, we think that

Bergson's claim that "laughter has no greater foe than emotion" (Bergson, 1917, p. 4) rings true. However, it cannot be extended to all emotions because there are emotions that are not antithetical to amusement. Joy for example does not block amusement but rather fosters it. Anger and hate also do not inhibit amusement, as is evidenced by Schadenfreude as a form of amusement that people experience upon a mishap of a person they detest or are angry with.

Another author who has criticized the view that amusement is an emotion is Morreall (1983; 2009, p. 28 ff.). Like Sharpe, he sees some similarities between amusement and emotions, such as pleasantness, intentionality and the involvement of bodily disturbances. But he states that beneath this family resemblance between emotions and amusement there are dissimilarities that rule out amusement as an emotion. For example, although both amusement and emotions have intentional objects, this similarity is only superficial because in emotions there is always a positive or negative attitude towards the object whereas we do not need to have any evaluative attitude towards the object of amusement. Further, although the experience of some emotion and the experience of amusement share the feature of being pleasant, this similarity is superficial as well because in amusement it is not the object that is pleasant but only our experience of the object.

Lastly, there are authors who occupy the middle of the spectrum we were talking about earlier. On the one hand they do not deny that amusement is an emotion, but on the other hand they do not claim that it is a full-fledged emotion, given the various dissimilarities between them. In other words, amusement is not a fullfledged emotion because it differs in many important respects from standard emotions (like anger or fear). In his engaging book *Emotions*, Roberts (2003) develops his account of emotions as concern-based construals. He covers the whole range of standard emotions and many other cases that are not so clear-cut. He notes that most people feel some hesitation to 'lump' amusement together with the standard emotions and places it among the more murky phenomena. Building on an analysis of amusement that he developed in an earlier paper (Roberts, 1988), he defines amusement as "emotionlike pleasure" (Roberts 2003, p. 301). Amusement is construing as pleasant a situation that involves an incongruity. It is distinct from other emotions because amusement is not based on any concern (for ourselves, or others), which on Roberts's account is one of the prominent features of standard emotions.

Although there are good reasons to think that amusement is an emotion, you might still not be satisfied with the pro and contra arguments presented by various philosophers. You might wonder whether the 'hard' sciences have something to offer in order to definitively resolve the conceptual quarrels of the experts in the armchair. As we will show in the next section, this is what Palencik proposes in a recent paper (Palencik 2007). He argues that we should take the neuroanatomical approach and turn to experts in lab coats: Neuroscientists. He is confident that the introduction of neuroscientific evidence can tilt the scale in favor for those scholars who claim that amusement is an emotion. But can it really?

We have sympathy for Palencik's account, and we also agree with his overall conclusion that amusement is an emotion. However, we shall argue that his attempt fails. We will identify the problematic assumption underlying his argument and make the case that his approach is vulnerable. Palencik's approach fails because the scientific evidence that he presents has in fact no bearing on the conceptual issues and can therefore not do the job that Palencik supposes them to do. This has nothing to do with the validity of the results of the studies or intra-scientific issues like different ways to interpret the empirical evidence. Rather, as we will argue, it is because the conceptual offers in question do not make any ontological commitment to any empirical account or a commitment concerning the underlying neuroanatomical structure or causal processes. For this reason, the problem cannot be settled the way Palencik attempts to settle it.

4.3. The neuroanatomical approach to amusement

In the paper titled *Amusement and the philosophy of emotion*, Palencik (2007) presents his 'neuroanatomical approach' to the question whether amusement is an emotion. Drawing on the works of Peter Griffith (1997) and Antonio Damasio (1999), two eminent scholars in the field of emotion research and philosophy of emotion, he claims that amusement should be regarded as an emotion because emotions and amusement share the same underlying neurobiological structure and neuronal activation pattern. His primary targets are the accounts of Morreall and Bergson, who both argue to the effect that amusement is not an emotion. Palencik claims that both Bergson and Morreall assume a strong dichotomy between reason and emotion.

They consider amusement to be a purely intellectual phenomenon. Hence, given this dichotomy, amusement cannot be an emotion.

According to Palencik, neuroscientists have allegedly shown that emotion and rationality are interwoven and cannot be disentangled due to being neuroanatomically homologous. Emotions might even be at the heart of rationality. In *Descartes' Error*, Damasio for example argues that "[t]he action of biological drives, body states and emotions may be an indispensable foundation for rationality" (Damasio, 1994, p. 200). Based on the empirical evidence from various neuroscientific studies, Palencik wants to convince his readers that there is no clear-cut dichotomy between reason and emotions. Therefore, his argument goes, the concept of amusement as purely intellectual is misleading. Succinctly put, Palencik claims that the "neuroanatomical similarities of amusement to other emotion states suggest that it is likely an emotion" (Palencik, 2007, p. 429).

Moreover, he claims that if we rely on the common sense dichotomy between reason and emotion, we will not get very far in the study of amusement. On Palencik's account, neuroscience can correct this mistaken common sense understanding: "The science behind emotion has taught us that the conventional dichotomies we sometimes use in folk psychology are a poor way to distinguish emotions from non-emotions" (ibid., p. 431).

We take Palencik to make a very strong methodological point in his paper: If there are folk notions or philosophical considerations that are not congruent with what natural scientists make of the phenomenon, then science should have the last word and these notions and considerations should be revised. The basic idea here is the suggestion "that the weight of evidence allows us to regard amusement as an emotion—one that is neuroanatomically similar to other, more recognized emotional states" (ibid., p. 431). Please note that, following our discussion about holism and reference of terms above, we are not insinuating that Palencik makes any claims about the lack of referents of folk psychology.

Further, it is important to note that he explicitly claims that neuroscience is not the only perspective from which we should consider amusement. In a footnote he is keen to state that the study of anatomy alone cannot establish whether something is an emotion but that empirical evidence "can provide important grounds for considering why we should or should not call something an emotion" (ibid., p. 434). We understand his account along the following lines: Neuroscientific evidence and empirical investigation can overturn certain claims that are used in philosophical-conceptual considerations and folk notions that are based on our common experiences. Ultimately then, neuroscientific evidence has the power to settle the philosophical disagreement whether amusement is an emotion or not by showing that the premise which draws a neat distinction between our rational faculties and emotions is false. That is, there is no such dichotomy.⁵⁹

4.4. No ontological commitment here

As noted, Palencik takes it as a given that certain assumptions about the dichotomy between rationality and emotions should be revised in light of empirical evidence. This is why empirical evidence plays such a prominent role in his argument. What we take him to subscribe to, therefore, is a version of [Overturn] that we have introduced in section 1. His suggestion is that the solid differentiation between reason and emotion (the classical dichotomy between passion and reason) that some scholars entertain "may not mirror the actual structure of the brain" (Palencik, 2007, p. 430). But he does not answer the question of why it should mirror the structure of the brain. In fact, he has no supporting argument as to why an account that fails to mirror the 'structures of the brain' needs to be disregarded.

If the conditions of commitment that we have presented in this paper are valid, we have at least one immediate way of how empirical evidence can have a direct bearing on philosophical theorizing regarding emotion and amusement. That is, scientific evidence has a bearing on common sense concepts and philosophical theories when they subscribe to a certain empirical account of the phenomenon: something that, borrowing from other authors, we have called an 'ontological commitment'. Now, these considerations should also make feasible what we think is going wrong in Palencik's argument. He implies that something like [Ontological Commitment] applies to the relation between the common notions of reason and

⁵⁹ While we do not wish to rule out that an appeal to the neural intertwining of cognitive and emotional processing could be invoked in order to make a proper argument bearing on the distinction between rationality and emotion, we feel that Palencik's arguments in favor of [Overturn] by themselves offer no account of this bearing or its grounding. Rather, it needs supplementation from an account explaining whether and why higher-level causal-mechanistic accounts should reflect distinctions made on the neurobiological level (and even then, such arguments still need to be judged by the applicability of this account). We also do not wish to claim that there have been no arguments in favor of [Overturn] which did come with such an account. Earlier [Overturn]ers, such as Churchland (1981), Feyerabend (1962) or Bickle (1998) were much more careful in this regard than Palencik. (Thanks to an anonymous referee for pressing us on this matter).

emotion and science, and that this will ultimately shed light on the philosophy of amusement. Remember, his diagnosis is that an account of amusement grounded in the folk-psychological dichotomy of reason and emotions is bound to fail because it does not 'mirror the actual structure of the brain'. Further, he is suggesting that the theories of both Morreall and Bergson rely on this faulty distinction and are therefore non-starters.

Alas, we think that this is exactly the point where *his* argument is a non-starter. Why? Because folk notions are usually not explicitly committed to any neurological account of what goes on in our heads that gives rise to our mental states (Fodor 1974, p. 113). Our folk psychological concepts and intentional state ascriptions are a way to make sense of the behavior of other people and even animals (Dennett 1995 & 1997). Searle (1994, pp. 211f.) uses the example of a barking dog to make this point. We say that the dog is barking up the tree because he *believes* that the cat is up there. The behavior of the dog, so Searle, would be unintelligible without the ascription of beliefs and desires.

The accounts we give of people's behavior that feature notions like 'beliefs' and 'desires' are meant to explain and predict why somebody (including ourselves, of course) acted the way she or he did (Cummins 2000, pp. 127 ff.; Fodor 1989, ch. 1; Davidson 1980, pp. 3-18). In doing that, no recourse to neurobiological underpinnings is needed or even necessary, because that is not what we are looking for when we ask for an explanation of why somebody did or did not do something. The folk notion of 'belief' for example cannot be bothered by the fact of what precisely is going in the brain that is causally responsible for that belief. Of course, many people share the notion that beliefs, desires and the like are 'in the head', but for what it's worth, the causal mechanism responsible could be manifold (Fodor 1974, pp. 106 f.). While folk psychology is plausibly committed to the claim that there is some form of lower-level implementation of the psychological functionality it postulates – some form of physical, or, in the case of most animals, neural process underlying its mental states -, it is not committed to any specific implementation: Intentional predictions are based "on no particular picture of the system's design" (Dennett, 1981, p. 13).

In addressing the question whether scientific findings that suggest that tastes are in fact smelled can override our common notion that tasting and smelling are different senses, Richardson argues that these findings do not affect our common notion because "they do not show that it is wrong to think that flavors are just tasted, they must show that something to which we are committed when we make this sensory judgment is false" (Richardson, 2013, p. 323). We think that this also perfectly describes the shortcomings with Palencik's proposal. We suggest that what Palencik needs for his argument to succeed is to show that claiming that amusement is an emotion also commits you the claim that amusement is instantiated by this or that neurological underpinning, either explicitly or implicitly. Specifically, he needs to show that the question whether amusement is an emotion can be settled by pointing to their respective neurological activational structure. However, he does not show that something we are ontologically committed to when we make the distinction between reason and emotion or between amusement and emotion is false. In other words, he would have to show that in making this distinction we are subscribing to a specific empirical account (i.e. one that goes beyond functional ones integral to intentional action-explanations) and that this account can be falsified by the given neurological evidence.

Crucially, even if someone like Bergson, as one of Palencik's main argumentative opponents, explicitly argues for a distinction between emotion and rationality in his account of amusement, this does not mean that he is subscribing to a detailed neurological account of the underpinnings of that distinction. The idea being that the position of [Ontological Commitment] would apply to Bergson's account if it would feature empirical claims about the neuronal processes underlying his distinction between intellect and emotion that can be contradicted by empirical findings. However, nowhere does he even come close to the claim that reason and emotion do *not* share important neuroanatomical features; a claim that we then could discard in the light of the best empirical evidence available. Therefore, we do not see how the refuge to neuroscientific evidence can play a defeating role in an attack on his theory.

The story is a little different for Morreall. While we were not able to find any passages in his work where he makes reference to any *detailed* account of the neurological underpinnings of amusement and emotions, he says that emotions are centered in the limbic system while humor is centered in the cerebral cortex (Morreall, 2009, p. 66; p. 79). What precisely Morreall has in mind with the term 'centered' is not made entirely clear. However, there is one argument that can be mounted against Morreall's assumption that there are centers of cognitive abilities and emotions: In the light of recent empirical findings, the idea that mental

phenomena can be neatly compartmentalized into 'centers' and then mapped on the structure of the brain looks highly suspicious (Poldrack, 2010); it might not be possible and fruitful to try to localize specific cognitive tasks in a certain brain region (Anderson, 2010). Hence, it seems at least these parts of Morreall's account – which may however not be integral to his arguments for the separability of amusement and emotion - are open to empirical falsification.

So far we have criticized the use of neurological evidence in attacks on the distinction between reason and emotion. This is not to say that this distinction is philosophically unproblematic. Still, this does not mean that we have to jump to the conclusion that this distinction subscribes to the respective neurological ontology; an ontology that natural science can show to be incorrect.

Likewise, whatever the folk psychological concept of amusement might be,⁶⁰ we think that similar to the common distinction between rationality and emotion, it is not tied to any falsifiable empirical commitments about the natural (or 'objective') similarities or dissimilarities between amusement and the standard emotions. Although the folk notion of amusement might subscribe to some causal processes, such as those between amusement and its objects, it does not subscribe to specific neurological causes. Neither need a respective philosophical account enter into such a commitment.⁶¹

To help motivate our view about the lack of ontological commitment of the aforementioned accounts of amusement to any precise neurological, biological or otherwise empirical underpinning, we will contrast it with a few things that a philosophical account of amusement might be committed to. Let us begin by suggesting that an account of amusement (or any other mental ongoing) is committed to a certain cognitive architecture of the subject. After all, it seems undeniable that there is some cognition involved in the processing and appreciation of humor. Obviously, this commitment does not have to go into the specifics of whether the mind is modular and in what way exactly (Fodor, 1983; Barrett, 2005) or whether cognition is best understood in representational, mechanistic, dynamical or connectionist terms (Stepp et al., 2011).

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⁶⁰ For starters, we think it is reasonable to assume that the folk concept of amusement is not a definition that introduces proper necessary and sufficient conditions. Similar to the concept of 'life', the strict definition of amusement is not explicitly known; it seems also impossible to capture the folk categorization of amusement by means of a definition. For the folk notion and definition of life see Machery (2012).

⁶¹ Of course, a philosopher might want to choose to make such a commitment.

According to so-called incongruity-resolution theories of humor, amusement ensues if an incongruity is detected and then resolved.⁶² Thus, this account is committed to the view that humor is processed incrementally. In addition, if you hold the position that amusement and some emotions share the aspect of pleasantness, you might be committed to certain claims about phenomenal consciousness and qualia.

One last point about a possible commitment: If you follow Arthur Schopenhauer (2010) and hold the view that humor entails a sophisticated conceptual system then you are also committed to the view that animals and infants can experience some forms of amusement only to a certain extent, given their lack or limited ability for concepts. This little excursion should suffice to show that a philosophical account of amusement could indeed be committed to a lot of things, but that explicit claims about neurological underpinnings do not have to be among these commitments, although direct claims that are open to empirical tests might be part of the argument.

To summarize our points: We have argued that scientific evidence only has limited bearing on the folk distinction of reason and emotion, and no decisive bearing on accounts amusement. More precisely, only if an account is ontologically committed to empirical assumptions that can be contradicted by empirical evidence can it be subject to revision in the face of such scientific evidence. In short and putting these points together, [Overturn] as a general thesis looks false, although [Ontological Commitment] seems to have some truth to it but is not applicable to every folk concept or philosophical account.⁶³

4.5. Digging to the heart of the matter: Naturalism

Before we proceed we would like to make some remarks on what we think is at the bottom of the problem with Palencik's proposal. What is responsible for his flawed view on the relation between philosophy and science is an unnecessarily strong

⁶² See f.e. Suls (1972). The cluster of accounts that is subsumed under the heading 'Incongruity Theory' has a long tradition in the philosophy of humor. It can be traced back to Aristotle but really arose in the 18th century with James Beattie, Immanuel Kant and Arthur Schopenhauer. For an excellent overview of the various humor theories see Morreall's entry in the Stanford Encyclopedia of Philosophy (Morreall 2013). Despite being the most popular theory in humor research, some have argued that the resolution of incongruity cannot account for a whole range of things that we find funny, while other authors claim that the incongruity-resolution model should be modified. See f.e. Cundall (2007) and Forabosco (2008). Recently, Ritchie (2009).

⁶³ Here, we do not want to exclude the possibility that science does indeed play a role in the evolution and the change of common sensical views over time. Common sense does not stay fixed and science might have a direct or trickle down effect on common sense (Sellars 1997, p. 81, § 40). But how exactly this influence comes about is a different matter and does not concern us here.

construal of what has come to be known as naturalism.⁶⁴ One can distinguish between two different varieties of naturalism. In characterizing the first kind of naturalism, we will follow Richardson's suggestion (Richardson, 2013, p. 324) here in that naturalism is the view that our common accounts of things can and should be corrected by science.⁶⁵ This is exactly the kind of naturalism we are confronted with in Palencik's account. A corollary of this variety of naturalism is that science can also challenge the hard-won insights of philosophers, to the extent that they are rooted in common sense notions or folk distinctions, insofar as these contradict scientific insights or violate science's methodological requirements.

The first version of naturalism is distinct from a second version, which is a naturalistic approach to philosophy itself. This is the view that philosophers should engage more closely with the practice of science. For one thing, they should draw upon the work of science. Further, the conclusions reached while sitting in the armchair should be relevant to the work that scientists do in the lab. This approach to philosophy has been dubbed 'naturalistic philosophy'. ⁶⁶ Of course, the two kinds of naturalism are not mutually exclusive and hybrid perspectives are possible.

Our diagnosis then is as follows: The issues we encountered in the account of Palencik are due to an uncritical adherence to a strong version of naturalism that holds that common-sense or folk categories should yield to the categories of naturalistic empirical investigation. Although not explicitly stated in his paper, we suspect that the view that Palencik is holding of the relation between philosophical and common sense considerations and scientific evidence is rooted in the belief that

⁶⁴ Since the term naturalism has a wide variety of uses, in the present context it is perhaps helpful to think of it as a particularly strong variant of scientific realism. Our reason for calling it naturalism is that it would require assuming that adopting scientific realism commits us to the basic ontology of our best theory (or theories) from the natural sciences, and that this commitment only allows including explanatory kinds from special sciences into our ontology insofar as these can be explicated in terms of natural kinds. A weaker variant of scientific realism, for example, might straightforwardly hold that if intentional psychology is a valid theory, then its explanatory kinds, such as beliefs and desires, can also be said to exist – no matter whether they are themselves natural kinds or bear any characteristic relations to natural kinds. (For example, Dennett (1991), Hacking (1999, 2007) and Kusch (1999), have proposed and defended variants of such theories.) Adopting the former variant, then, is more costly insofar as it requires assuming that theories such as intentional psychology are either not properly scientific, or that their ontologies must be reducible. (Thanks to an anonymous referee for suggesting this clarification.)

⁶⁵ Please note that there is not one definition of naturalism that satisfies all camps. It is common to distinguish between an ontological naturalism and a methodological naturalism. The first shuns all kinds of things that are metaphysical or supernatural and claims that they have no place in any account of reality. The second is concerned with how we should come to terms with reality. Papineau says that naturalists defend "some kind of general authority for the scientific method" (Papineau, 2009). Also, naturalistic philosophers differ in how strongly they subscribe to positions that are usually considered to be the pinnacle of a naturalist agenda, like physicalism. Jennifer Hornsby for example calls her position 'naive naturalism' and describes it as neither committed to Physicalism nor a Cartesian worldview (Hornsby, 1997).

⁶⁶ Although rooted in earlier attempts, Quine's approach (Quine, 1969, pp. 37-48) to establish a naturalized epistemology can be considered the publication that sparked naturalistic philosophy.

naturalism of the first variety is the way to go. After all, he argues that "[...] the conventional dichotomies we sometimes use in folk psychology are a poor way to distinguish emotions from non-emotions" (Palencik, 2007, p. 431) and that science is bound to correct the flawed reasons for holding these dichotomies. This is an issue that can be encountered in the writings of many other authors that use scientific evidence to make a philosophical point.⁶⁷

However, as Fodor (1974) classically pointed out, we shouldn't just go ahead and suppose that special sciences such as psychology should conflate their explanatory categories (or "kinds") with the natural sciences. For example, psychological kinds, be they of a folk or of an academic nature, may very well cross-classify neurological kinds (Fodor 1974, pp. 106f., p. 113). The view that psychological kinds should be made to match up with neurological ones⁶⁸ conveniently neglects the fact that this kind of matching could "loose exactly the kinds of generalizations which we want the special sciences to express" (ibid., p. 112). So, if we want psychology to still explain the kind of phenomena we want it to explain, it could very well be in our own best interest to not forcibly make its kinds match up with neurological ones. This is not to say that it may not empirically turn out that some psychological kinds do indeed conflate with some neurological ones; only that there is ample reason not to conceptually require them to do so, and that their potentially not doing so is no sufficient reason to revise them. One reason for this is that special sciences like psychology are not dealing with natural kinds to begin with, but rather with "interactive kinds" exhibiting properties of agents that differ categorically from nonagential properties (Hacking 1999, pp. 103 ff.; Hacking 2007).

Please note that we do not wish to argue that naturalism is a completely untenable position, merely that the required kind of naturalism needs more argumentative bolstering. For one thing, as Richardson (2013) and others before her have argued, the interpretation of empirical data depends on how we settle this question in the first place: If you claim that scientific data can correct our everyday

⁶⁷ In a recent paper, Shapiro (2013) criticizes the proponents of the dynamical systems approach for their unwarranted rejection of the idea of representation in their accounts of cognition. According to him, they are under the false assumption that empirical evidence can settle a conceptual question like this. Selim Berker (2009) has criticized attempts by moral psychologists to derive normative conclusions from descriptive empirical evidence. Berker argues that the neuroscientific results do not do any work in the arguments for the normative implication of neuroscientific results. His central claim is that "either attempts to derive normative implications from these neuroscientific results rely on a shoddy inference, or they appeal to substantive normative intuitions (usually about what sorts of features are or are not morally relevant) that render the neuroscientific results irrelevant to the overall argument". However, he contends that neuroscience might play an indirect role for our normative conclusions.

⁶⁸ For a discussion of this view beyond Palencik see Kincaid & Sullivan 2014 and Barrett 2006 and 2012.

conception, you will have to argue why we should accept this kind of naturalistic view to begin with. The piling up of empirical data alone is not going to help us to answer the question whether naturalism is correct or not. Also note that a potential explanatory autonomy of psychology from, say, neurology does not contradict naturalism or even physicalism per se – it is only unnecessarily strong versions that are thereby rejected (Fodor 1974, pp. 100 f.).

We should also hasten to emphasize here that we do not wish to imply that scientific evidence is useless for philosophers or that it cannot inform our common sense understanding or philosophical theories of amusement. Of course some views and elements of our folk conceptions are subject to the correction by scientific evidence and philosophy can benefit from empirical data; but only if they make the kind of ontological commitment outlined above.

5. Back to square one

Picture yourself at the same party that we asked you to imagine in section 4.1. You are now engaged in a heated discussion with a group of people about the question whether amusement is an emotion, or if it is an entirely different mental phenomenon. Because you have read a thing or two about the philosophy of emotion and you have also looked into some papers on humor and amusement, you say that you are not convinced by the arguments that philosophers have brought forward in favor of the view that amusement is an emotion. Now, one of your friends says that he can settle this issue once and for all. She says she looked into some recent scientific publications, which reported that the neurobiological underpinnings of various emotions and the neurobiological structure of amusement are similar. Therefore, she goes on, amusement is an emotion and you are wrong in denying this based on your philosophical reservations, which are grounded in the "un-objective" folk dichotomies between reason and emotion. Therefore, everybody has learned a lesson and you can now get back to topics that are better suited for a party and will not end in intellectual fights.

However, if the position that we have developed in this paper is plausible, then your friend cannot have it her way and directly refute you with reference to empirical evidence. First, scientific evidence only has a bearing on folk psychological theories and philosophical accounts when these are committed (either implicitly or explicitly)

to an empirical account or the existence to some empirical entity. Second, your friend's proposal that empirical evidence can overturn your claims is likely rooted in an unquestioned adherence to an unnecessarily strong from of naturalism. Here you can ask her to argue why we should accept this form of naturalism in the first place, because it need not be taken as the default position.

It may be objected that the theories that we used as illustrations are not a good pick because they explicitly make or implicitly entail empirical claims. Suffice it to say that it would make the business of philosophers unreasonably hard, if not impossible, if they were to refrain from using empirical claims or clean their accounts from any suspicious empirical entailments. Since an argument is more vulnerable if it is committed to particular empirical claims and accounts, it might prima facie seem to be a clever move for those philosophers whose primary concern is strengthening their argument to abstain from making empirical ontological commitments, given they have a choice. Whether this practice results in better philosophical theories is a different question though. Further, the strategy of avoiding unnecessary ontological commitments also runs the risk of isolating philosophy further than it already is from empirical sciences. However one handles it, we doubt that it will make for better party conversations.

Technology is a laughing matter: Bergson, the comic and technology

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1. Introduction

In this paper I will explore whether Bergson's account of comic amusement can be made fruitful for philosophy of technology. Associated with this enterprise are two goals: First, I attempt to fill a gap in the intellectual landscape because Henri Bergson is absent from the philosophical literature on technology. No seminal compendium that I have consulted features him and his contribution to philosophy of technology.⁶⁹ The main reason for the absence of Bergson in the philosophical literature on technology may be that Bergson never explicitly focused on technology in his writings. On the rare occasions that he is mentioned at all, it is usually for his book Creative Evolution (1907) and his anthropological characterization of man as homo faber (Mitcham 1994). There are, however, some recent exceptions that are noteworthy. Ruse (2005) uses Bergson to ground his argument for the importance of a philosophy of technology because the human condition is inseparable from technology and Marrati (2010) draws attention to Bergson's thoughts about the relation of technology to organisms and how technology extends our organs. My aim here is to show that Bergson is relevant for a philosophy of technology. In order to do so, we have to cast aside the works that have received the small amount of attention so far (Creative Evolution and Matter and Memory) and take some ideas from his small book called On Laughter, a book that deals with comic amusement and laughter. The second goal is to bring together the philosophy of technology and the philosophy of humor. Humor as a relation to technology has not gotten the attention

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⁶⁹ In Scharff & Dusek (2003) Bergson is mentioned only 5 times. In the more recent Berg Olsen, Pedersen & Hendricks (2012) Bergson's name is mentioned only once. Bergson is also absent from a lot of introductions to the philosophy of technology. To name just a few: Ferre (1995) does not mention him at all and Dusek (2006) mentions him once. And last but not least: The entry on philosophy of technology in the Stanford Encyclopedia of Philosophy does not mention Bergson at all (Franssen, Lokhorst & van de Poel 2013).

that it deserves. I will try to show that humor can provide a fresh and new perspective on our relation with technology.

My focus here is also twofold: First, I will focus exclusively on Bergson's text *On Laughter*. I will not engage with his other writings because it is the account in this book where interesting connections to a philosophy of technology can be found. As for the second focus: The elements of Bergson's account that I will be considering in this paper are only the elements that are of interest for a philosophy of technology. That means I will not give a full description of Bergson's account in all its detail.

Here is what the reader can expect: In the first part of the paper I will canvas Bergson's ideas pertaining to comic amusement. Then I will discuss the implications of his account for philosophy of technology. I will conclude with some ideas about the connection between humor and technology.

2. Bergson: The comic as mechanical

Some words of caution: As I have been emphasizing, the focus here is on the account that Bergson gives of comic amusement and his idea of the mechanism responsible for comic amusement. I do not intend to give a comprehensive description of Bergson's account and will only concentrate on the elements that are salient for my enterprise to connect Bergson to philosophy of technology. For example, I will say nothing of the various comedic devices that Bergson analyzes in vivid detail. Keep in mind that Bergson did not give a full-fledged theory of humor nor did he intend to cover all cases of amusement. Rather, he identified the mechanism that he deemed responsible for much of our *comic* amusement.

Without further ado, the take home message of Bergson's account is that comic amusement ensues when "something mechanical [is] encrusted on the living" (Bergson 1914, 37). I will now expound this claim. According to Bergson, the element responsible in a lot of cases of amusement is when a "mechanical inelasticity" (Bergson 1914, 10) takes the place of organic flexibility. The source for a great deal of amusement (and in some cases subsequent laughter) is when a person is acting in a repetitive and non-flexible way. Bergson seems to have a spectrum in mind, where the mechanical is on one side and the living and organic on the other. Hence, we get what I would like to call Bergson's principle of proportionality: "The attitudes,

gestures and movements of the human body are laughable in exact proportion as that body reminds us of a mere machine" (Bergson 1914, 29).

A distinction is in order here. The mechanic inelasticity can pertain to the bodily as well as to the mental realm. Bergson's own example for bodily inflexibility is a man on the street that loses control over his body, stumbles and falls down. Here, so Bergson, we are amused because we recognize a mechanical inelasticity where adaptability and organic flexibility should be. The man was not able to adapt to the situation, because his body was stiff and inflexible. To get a grasp on mental inflexibility, it will be useful to consider an example too: Habits sometimes dictate how we go about things. The way most people start the day can be reminiscent of a robot being on autopilot. Getting up, making coffee the same way as ever, taking a shower the same way as ever, getting dressed the same way as ever, having a cup of coffee in the same way as ever, making breakfast the same way as ever and so on. The bodily movements are automatic and repetitive without the need to think about them. Admittedly, the line between bodily and mental inflexibility is blurry in this example and speaks to the fact how hard it is sometimes to disentangle the embodied mind. A clearer case of mental inflexibility is stubbornness. Sometimes people who have settled on one idea refuse to change their mind despite good arguments or evidence to the contrary. More than often this kind of mental inflexibility results from a lack of imagination or has its source in a lack of reflection: "The chief cause of rigidity is the neglect to look around-and more especially within oneself [...]. Rigidity, automatism absentmindedness and unsociability are all inextricably entwined; and all serve as ingredients to the making up of the comic in character" (Bergson 1914, 147). In other words, someone is mentally inflexible if she does not pay attention to her surroundings and lacks the abilities to pay reflective attention to her own thoughts and attitudes. To stretch the idea a little bit, we could go one step further and claim that the individual inflexibility has an analogical counterpart on the social and political level. After all, the fixation on one idea or one way of life is a characteristic feature of some ideological movements and social ceremonies sometimes make people look like string puppets following a script.

But Bergson's account of comical amusement is incomplete⁷⁰ because he does not address the question why the reaction to something comical or funny is a pleasant experience. Doubtless, amusement is an affective mental state that is a pleasant and

⁷⁰ Thanks to an anonymous referee for pressing me to address this issue.

the pleasantness of amusement is a crucial part of the explanation of why people seek out this experience. In the literature on humor there are several offers on the table as to why amusement is pleasant. A classic but outdated answer comes from Freud (Freud 1990) who claimed that what makes amusement pleasant is the relief of cognitive pressure that was used in subduing socially sanctioned thoughts. Another answer comes from the so-called superiority theory of humor (Gruner 1997). Pleasure, so the idea goes here, comes from the feeling of superiority over another person, as can be observed in put-down humor or derisive jokes. Others have argued that the pleasure of amusement comes from the liberation from the demands of reason and speech because humor allows the breaking of accepted norms or hierarchies (Knox 1952; Knox 1951). In humor we are free to engage in world-play, to goof around and to question authorities. Most recently, it has been argued that the pleasure of amusement comes from discovering a mistake in our belief structure (Hurley, Dennett & Adams 2011). Least we forget scientific evidence: Neuroscientists could show that humorous stimuli engage the mesolimbic reward system (Franklin & Adams 2011). The enhanced activity in the mesolimbic reward system is implicated in the enjoyment of experiences and plays a crucial role in our motivation to engage in activities that promise to activate these regions. I don't think that there is a one and only source of pleasure when it comes to amusement and the explanation of why a particular humor token is amusing and pleasant will likely involve a mix of different elements.

At the risk of being a little repetitive myself, I want to state once more that Bergson saw mechanical inelasticity or rigidity as the fundamental feature of the ridiculous. Someone is ridiculous if she behaves in a rigid and repetitive manner where she should be flexible.

2.1 Context and philosophy

It might help to understand Bergson's account of the comic when it is located within the context of his philosophy.⁷¹ One of the notions that he is best known for is *élan vital*. In a nutshell, Bergson claims that humans are animated by a vital force that is behind evolution and is also responsible for creativity. The élan vital is a force that

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⁷¹ I kept this section as short as possible. The reader who wants to know more about the historical and intellectual context of Bergson's work is referred to Milner Davis (2014).

drives things forward. This élan vital is also responsible for our flexibility. However, sometimes we do not behave in accordance with this driving force, but rather in a rigid and repetitive fashion. Noticing that someone is not acting according to this vital force is what brings about amusement. Bergson was also deeply opposed to the materialism and the mechanistic thinking of his time, especially as it concerned living beings (Guerlac 2006). In *On Laughter*, Bergson seems to draw a distinction between the organic and the mechanical, but we have to keep in mind that in his later works, most notably *Creative Evolution* from 1907, he does not make an essential distinction between organs and machines (Marrati 2010, 11). They differ only in the material they are made out of. According to Bergson, both organs and machines are tools that can serve the same functions. So much for the context in which Bergson's ideas on the comic are situated. I now want to consider briefly what Bergson says about the function of laughter because this function will become important later, when I talk about technology.

2.2 The function of laughter

For Bergson, laughter is a social corrective. Society, so his idea goes, demands from us attention to the situation we are in: "What life and society require of each is a constantly alert attention that discerns the outline of the present situation, together with a certain elasticity of mind and body to enable us to adapt ourselves in consequence." (Bergson 1914, 18). We have to be able to adapt to a new situation or when the situation changes. According to Bergson, inelasticity is a threat to society, because for a society to function we need to retain the ability to adapt to one another. Rigidity of the character and the mind is something that is suspicious, because being mechanical is detrimental to being flexible and therefore adaptive. Mechanical rigidity threatens the social fabric. If you lack elasticity you are unyielding in your behavior and way of thinking then you are not able to adapt to changing situations in general and to other people in particular. Witnessing this inability to adapt, this inflexibility, so Bergson, triggers laughter. Laughter serves as a corrective social gesture (Kivy 2003) that is intended to discipline the one who has acted inflexibly: "Laughter is, above all, a corrective." (Bergson 1914, 197). With our laughter we want to alert and also humiliate the person. We want to bring the person back to the realm

of humans.⁷² We want her to act non-mechanically and think in a flexible, more human way. Laughter is "alerting us to the threat of stasis", as McDonald has put it (McDonald 2012, 39). Laughter occurs upon the realization that some mechanic repetitive behavior is opposed to the vital spirit (the élan vital).

There is much more to be said about Bergson's account of the comic as mechanical and his ideas about laughter. But what I have outlined above should be sufficient for my goal. After this rather descriptive part, I will now move on to a more speculative and interpretative part of the paper.

3. Bergson and philosophy of technology

In this section I try to show that Bergson's thoughts on comic amusement and the ridiculous are of interest to philosophy of technology. In fleshing out some ideas, I will also connect Bergson to other accounts and authors in the field of philosophy of technology and beyond.

We should not overlook the following point: Bergson's ideas need to be considered in the technological context of his time. He witnessed the Second Industrial Revolution and it is fair to assume that his thinking was shaped by this development. Among the artifacts that he was confronted with when he published the collection of essays that later became On Laughter in 1900 were clocks, automobiles, the machines in the factories and steam engines. During the Second Industrial Revolution, factories became highly mechanized and turned labor into a repetitive and monotonous task. Modern technology was seen as threatening to reduce humans to mere machines. The classic and familiar cinematic rendition of the way modern technology changed the way humans worked and lived can be seen in the movie Modern Times with its powerful images of Chaplin trapped in the cogs of the machine or the scene where Chaplin is reduced to a part of an automatic feeding machine. The features of Modernity are mirrored in comic representations in film, literature and visual arts. North (North 2009) shows that a variety of modern writers and artists saw something comical in the repetitions that modern machines demanded from humans. Art, literature and philosophy are part of the same culturaltechnological context so they all explored similar issues, themes and ideas. It does

⁷² Bergson was not the first to see the corrective potential of laughter. The idea that laughter as a social corrective was anticipated by Francis Hutcheson in his *Reflections upon Laughter* from 1725, see Hutcheson (1973).

not come as a surprise, therefore, that similar themes can be identified in both Chaplin's and Melies's movies, in the novel Ulysses and Bergson's treatment of humor (Hanaway 2012). Hence, Bergson's thinking on the topic of humor can be seen as a reflection of the changes and upheavals of industrialization. One might object here that Bergson's idea of inflexibility and the opposition of the mechanical and the organism was a product of its time and is outdated by now. Of course, Bergson knew nothing of the recent inventions, like cellphones, computers, iPods and the Internet, that make up our technological lifeworld. However, a lot of factories still feature assembly lines and there are still a lot of repetitive tasks around. Just think of call center agent who is required to unwind the same verbal procedure for a couple of hours. We should also keep in mind that there are parts of the world where repetitive and monotonous jobs are still very common. Further, simply because an account was inspired by the techno-social climate of a time, does not mean that it does not have something important to teach for the generations to come.

Humans adapt to new circumstances by rearranging the environment with the help of technology (Feibleman 1965, 554) and technology is an expression of our flexibility and creativity. Bergson was aware of that because in his Creative Evolution he explicitly addressed the human's ability to create tools to act upon the environment. The prevailing stance towards technology still is that it makes us more flexible, allowing for more possibilities and freedom. Nobody would deny this. But Bergson's formula of the 'mechanical encrusted on the living' reminds us that we should not turn a blind eye on the possible negative effects and that we should consider how technology makes us less flexible. Especially communication technology allows us to do things more quickly. One would expect that this would result in a decent gain of valuable time. However, it only means that we can use the time that we have gained to do other tasks. Finishing a task more quickly only means you can start the next task earlier. Time for reflection diminishes. This leads to the familiar feeling of being rushed and not being able to come to rest. Some people feel trapped in a hamster wheel, repetitively running while loosing sight of themselves and what is important to them, because their mind is always already with another task that needs to be done.

Bergson seems to have anticipated this development in that he notices that the dominance of the mechanical in the lifeworld has some far reaching consequences for how people live their lives. As Milner Davis points out, Bergson feared that "the mechanical that is dominant in everyday life can construct in human beings a kind of phantom self so that a person thinks and behaves for practical purposes in "mechanical time" rather than transcending their circumstances to experience living, reflective time." (Milner Davis 2014, 79). There is the lurking danger of losing awareness of lived experience. Here, Bergson predicted an effect of the technological development that only later received full scholarly attention. Technology not only changed how we work but it also changed the way we relate to the world and ourselves. Acceleration is a constitutive feature of modernization (Rosa 2003) that leads to alienation from time and space and to alienation from oneself and others (Rosa 2010). Arguably, the most recent phenomenon related to the acceleration of life that we have brought upon ourselves with the help of technology is the digital time deficit or what Wajman calls the time-pressure paradox (Wajman 2014 61-87). Despite the fact that we have a multitude of devices that undeniably help us get things done more quickly, and despite the fact that we actually have more free time at our disposal than ever and that working hours did not increase over the last 50 years, a lot of people still feel a lack of time.

Not only can technology bring about a loss of reflection but modern artifacts also bring the potential for comic behavior. We are all familiar with the sight of people talking on the cell phone or texting while walking down the street. I almost bumped into people a couple of times because I was texting. Since 2005, the number of pedestrians who were injured due to cellphone use has doubled (Nasar & Troyer 2013). Bumping into other people and things because your attention is captivated by our little devices is not really a flexible adaptation to your environment, is it? It is rather like Bergson's mechanical encrusted on the living, in that mechanical inflexibility took over where adaptability should be. The phenomenon is perfectly captured by a cartoon by Liam Francis Walsh (Fig. 1).



Figure 1. The attention-diminishing effect of cellphone use (© Liam Francis Walsh, http://liamfranciswalsh.com)

Someone might be inclined to respond that this is an instance of bodily inflexibility and that examples of mental inflexibility are not so easy to come by. Consider this: A lot of people love the GPS devices in cars that guide them through unknown terrain with its soothing voice and colorful arrows. However, these little boxes might actually decrease the ability to navigate in a city, when people are on their own. We can look at empirical evidence that suggests that navigation system can have a negative effect on the perception of the external world, in that people do not recognize important landmarks and buildings (Göktürk & Pakkan 2013). The constant and automatic use of GPS may also result in a decrease of our critical faculty to assess a given situation. There are anecdotes where people have driven the wrong way into a one-way street, ran their car into lakes or got lost in Death Valley because they slavishly followed the instructions of the little box on the dashboard (Clark 2011). So we should be aware of the possibility that technology may actually inhibit mental flexibility and

adaptability. Technology (or the way we use it, to be precise) might even make us less creative. Empirical evidence suggests that even the Internet, often praised to be a wellspring of creativity, may have a negative effect on our mental capacities and learning abilities. Some authors have even claimed that the Internet turns us into superficial thinkers and inhibits our abilities for concentration and contemplation (Carr 2011).

Another example is the all too familiar scene of the smartphone user, who snaps a picture of every experience or food that she deems worthy of being captured, chronicled and shared on a social media platform. Here, technology enables a repetitive and automatic habit. A habit that can influence what and how they remember these moments in an undesirable way.⁷³ Here is one more example of how technological advancements can turn people into comical figures. In a recent New York Times piece (Feuer 2015), the author described how online dating apps change the way people date. He notes that even in a crowded bar, a place destined for meeting others, people tend to look at their smartphones and swipe through the endless stacks of possible mates pumped on the screen by the app. The dating app and the practice that it enables have such a strong pull, that people repetitively turn to their cellphones to use the app; on top of the usual text messaging that is. Again, the cartoonist Liam Francis Walsh expressed this nicely in two of his cartoons (Fig. 2 and Fig 3)

⁷³ In a series of studies Linda Henkel found the so-called "photo taking impairment effect": People remember fewer objects and fewer details when they have taken pictures of them (Henkel 2013).



"Look at the picture I took of the thing we're looking at."

Figure 2. Experiencing the moment through your cellphone (© Liam Francis Walsh, http://liamfranciswalsh.com)



"It keeps me from looking at my phone every two seconds."

Figure 3. The constant allure of the cellphone (© Liam Francis Walsh, http://liamfranciswalsh.com)

Just to be clear, the worry here is not that technology turns us into mindless automatons or that creativity is completely suffocated. Rather, I want to propose that what we should take away from Bergson's worry concerning inflexibility and the opposition between the mechanical and the living is that we need to be sensitive to what technology does to us. We should be aware of when and how the mechanical encrusts on the living. The very means that are supposed to help us adapt and deal with situations, the very means that have been created to make our lives easier and more comfortable, have a flip side. There is certainly a tension between reaping the benefits of our use of technology and the way that technology shapes us in undesirable kinds of ways. This tension mirrors the tension between the mechanical and the flexible that is at the heart of Bergson's account of the comic. If humans are supposed to be flexible, then we should be on guard for the possibility that technology may decrease our ability to flexibly adapt to our environment. Without buying into the whole idea of élan vital, we can nevertheless be sensitive to the way technology shapes us and pay attention to the way technology affects our bodies and minds.

I have already given examples of how technology can impede adaptation in a bodily flexibly way and how it can foster mental inflexibility. Now, I want to introduce a third way, a way in which technology may bring about some rigidity on a grander scale. This rigidity concerns the mindset that we use to approach certain problems or situations and may therefore be called techno-cultural inflexibility. What I have in mind here is that technology is so entrenched in our way of life and so deeply connected to how we think about the world, that we tend to think about certain issues in a one-dimensional way. There is a fascination (sometimes even an obsession) with technological fixes for political and social problems, neglecting alternative ways to go about them. This one-dimensional thinking is dangerous because it can lead to waste of money, resources and technological pseudo- or shortterm solutions. Some problems like disease prevention can be solved with technological fixes such as vaccinations, whereas other problems like increasing the reading ability or climate change do not lend themselves easily to a straightforward technological solution (Sarewitz & Nelson 2008). The inability to consider nontechnological solutions is the analogue to the individual rigidity of a person stuck in her habits and ways of thinking, not flexible enough to consider other points of view.

I want to push this idea a little bit further. A whole society may be ridiculous and comical in the sense that it lacks intellectual flexibility, is repetitive and thereby predictable. The relation between technology and how it can be used to create predictability and suffocate potentially dangerous creativity has long fascinated science fiction writers. In Brave New World, Aldous Huxley gives us a dystopian world where everything goes according to plan and everybody has a fixed place in the caste-system. Everything in this "world state" is predictable and nothing out of the ordinary happens. Even the excitement that is offered to the population is predictable and repetitive. The same motif can be found in another sci-fi classic. In Fahrenheit 151 Ray Bradbury describes a society where people go through the same repetitive cycle of work and home entertainment. After work they sit in front of their wall-sized televisions and watch how more or less the same stuff is repeated over and over. Surprises and creativity are not welcomed, because they threaten the peace of a society where people are homogeneous in their opinions. Neil Postman called the society presented by Huxley a burlesque (Postman 2006). Through a Bergsonian lens it is a rather comical or ridiculous affair because inflexibility and repetition have taken over.

Another closely related issue is predictability. The contrast between the mechanical and the flexible in Bergson also brings to the fore that humans are unpredictable. Humans are not like well-oiled mechanisms that smoothly and reliably function all the time. Humans are flexible and therefore unpredictable in their behavior and thinking. In contrast, someone who is mentally inflexible is not surprising and rarely creative. The dystopian stories mentioned above give us a fictional (and to a great deal overestimated) account of what might happen when we create a procrustean bed with the help of technology. Not only do we turn ourselves into comical figures but we also rob ourselves of one of the greatest sources of pleasure in life, namely unpredictability. Predictability is inversely proportional to surprise. Taking away unpredictability would be highly unfavorable because we have a desire for surprise and "we want varied and unpredictable intellectual and social lives" (Morton 2014: 138). Too much predictability and repetition brings about boredom. Unpredictability is what makes humans surprising. We should embrace this unpredictability as a sign of our freedom and creative potential. So the inflexibility that technology may bring about is not only detrimental to creativity but also to surprise.

I will now conclude the paper with a short recap and some general remarks about how humor may be brought to fruitfully bear on philosophy of technology.

4. Concluding suggestions: Humor and philosophy of technology

One of the goals of this paper was to acknowledge the philosophical potential of Henri Bergson's ideas about the comic for philosophy of technology. I have outlined Bergson's account of comic amusement and laughter and discussed its implications for philosophy of technology. I have shown that Bergson' account of the comic is relevant for a philosophy of technology, although it admittedly requires some interpretative flexibility on our part. I will conclude the paper with some ideas about the connection between humor and technology and suggestions for further inquiry.

Philosophy of technology has already examined a lot of the relations that we can have with technology, how we interact with technology and how technology shapes us individually and our society. Humor is a crucial human relation to the world. Given that technology is an indispensable part of this world humor may also be a crucial relation to technology and we should take this relation serious. So here is my suggestion: We should pay more attention to humor as a perspective on our relation to and with technology. What's more, humor may give us a fresh new perspective on our relation with technology. I have shown that according to Bergson, comic amusement alerts us to situations of inflexibility, situations where the mechanical is encrusted on the living. I want to propose that the lesson we should take home from Bergson is that we should pay attention to situations that have the potential for fostering inflexibility. Amusement is sort of a marker for these situations. Our use of technology can be ridiculous sometimes and we should take this response seriously. So whenever we are amused by a situation that features technology, we should apply a healthy suspicious look and inquire about the role of technology in the scenario. Technology may be responsible for a lack of flexibility and for rigid thinking here, a role that might have gone unnoticed. So, by deliberately looking for the comic potential in our use of technology and in the way technology shapes our world, we can exploit the potential of humor to show us some ugly truth about this relation. Put differently, we should be open to the ridiculous uses we often make of technology. Laughter and amusement might tell us something about the way we use and abuse technology.

General conclusion: Summary and contributions

The aim of this thesis was to demonstrate challenges and to raise important issues regarding philosophy of humor and amusement. Although advances have been made in recent years, humor and amusement are still rather neglected in philosophy. One main objective of this thesis was to make headway on these topics. The topics and issues of this thesis are wide-ranging and span from humor theory in general to more specific issues regarding amusement, emotion, and ethics as well as philosophy of technology. To give this thesis a comprehensive shape, I organized it around five key themes: (1) humor theory, with a particular focus on the incongruity theory of humor; (2) the relation between amusement and other emotions; (3) the connection between humor and morality; (4) training humor or 'sense of humor'; and (5) the connection of philosophy of humor to grander schemes in philosophy. In the following paragraphs I will summarize the main points of the individual chapters. Then, after each summary, I will outline the contributions of each chapter and point out implications for philosophy of humor and beyond.

In chapter one, I focus on incongruity theory. Incongruity theory states that humor and amusement are due to incongruities. Although not without its problems, the incongruity theory is the most influential theory of humor to date. Specifically, proponents of this theory have claimed that amusement is due to a perception of incongruity. In chapter one I critically examined the notion of such a 'perception of incongruity' that many authors in the field take for granted. I showed that amusement is not a perceptual experience of incongruity and that incongruities cannot be perceived. I conclude that the notion of a perception of incongruity should therefore be dropped and replaced. In addition, the second paper of chapter one focused on the account by Spiegel (2013), in which he applies ideas from incongruity theory, superiority, and relief theory in order to make sense of why flatulence is funny. In this short paper, I addressed five problems with Spiegel's account. Specifically, Spiegel made use of the idea of a 'psychological shift', which is popular by many proponents of the incongruity theory of humor. However, I argued that the notion of a 'psychological shift' used by Spiegel is not specific enough to get his argument off the ground.

In chapter two, I remained in the vicinity of incongruity theory although the focus here was on the relation between amusement and emotion. Specifically, I identified a problem with the widely held belief that the *formal object* (i.e., the property that an emotion ascribes to its target) of amusement is 'incongruity' (or the incongruous). Drawing on ideas from the philosophy of emotions, I presented two arguments to show that incongruity cannot be the formal object of amusement. First, because the formal object of an emotion most plausibly is an evaluative property and as I showed incongruity is not an evaluative property, I concluded that incongruity cannot be the formal object of amusement. Second, formal objects are the features by which we evaluate the appropriateness of emotions. I argued that if we were to hold on to the idea that the formal object of amusement is incongruity, we could not account for the appropriateness of this emotion. Both arguments amount to the fact that we either give up the claim that amusement is an emotion or that we give up the claim that the formal object of amusement is 'incongruity'. However, the former option is not very attractive. As I also show in the paper, we have reason to assume that amusement is in fact an emotion. Hence, we should opt for the latter option.

Taken together, the two papers of chapter one and the paper of chapter two identify problems within the popular incongruity theory of humor. Not only should we retire the notion of a 'perception of incongruity' but we should also refrain from using of ideas that potentially hinder a better understanding of humor and amusement as some authors do. An example is the rather uncritical deployment of potentially problematic and somewhat outdated ideas from superiority and relief theory, such as the idea of a psychic energy. Further, the idea that amusement is due to a 'pleasant psychological shift', is – though interesting – a rather underdeveloped notion within incongruity theory and does not have much explanatory power. In pointing out problems for incongruity theory, the two papers of chapter one contribute to the conceptual refinement of humor theory. Further, the claim that 'incongruity' is the formal object of the emotion of amusement is prevalent in the literature. Given that this claim seems not tenable, as I have argued in the paper of chapter two, the paper also makes a direct contribution to the improvement of philosophy of humor. In addition, because amusement is one of the most important emotions, albeit a theoretically neglected one, advancement towards a satisfying account of it is more than welcome. In sum, incongruity theory is in need of some refinement. The papers of chapter one and two may be a small step in that direction.

In chapter three, I concentrated on what has come to be known as *comic* immoralism. This is the idea that moral flaws actually enhance amusement. The

challenge that immoralists face is to show how a humor token (e.g. joke) is amusing because of the moral flaw and not merely amusing despite the moral flaw. In the paper I examined this challenge and made it more precise. In addition, I showed that two recent accounts that defend comic immoralism are insufficient because they address a weaker and less demanding version of the immoralist challenge than the challenge that I propose. I also provided a new account that deals with the immoralist challenge more adequately: Grounded in the idea that amusement is a compound mental state and that pleasure is part of this compound I argued that immorality may causally contribute to amusement because immoral features in some cases do enhance pleasure.

The paper refines what the challenge for comic immoralists actually is and presents an account of how moral flaws can causally contribute to amusement. For these reasons, the paper directly contributes to a debate in philosophy of humor that has captured authors for quite a while now: The debate about whether and in what way moral features influence comic amusement. In making a contribution to this particular debate, the paper also has an impact on a long-standing general debate in aesthetics. Specifically, regarding the relation between moral features of artworks and aesthetic experience and aesthetic values.

In chapter four, I addressed whether our ability to be amused can be enhanced by training. This is a relevant question, because amusement has many benefits and seems to be a universally acclaimed emotion. I argued that training the ability that underlies amusement requires improving control over this ability, and that improving control of an ability requires that we pay attention to covert elements, i.e., elements that pass under the radar of attention. In the next step, based on a recent account by Hurley, Adams, and Dennett (2011) and ideas from other philosophers, I argued for the idea that the cognitive process that underlies amusement essentially features the introduction of covert elements. Importantly, trying to improve control by attending to covert elements would jeopardize the cognitive mechanism that is responsible for amusement. Thus, I conclude that training cannot enhance the capacity that is responsible for amusement.

The paper in chapter four elucidates the relation (and primarily difference) between our capacity of amusement, mental actions, and skill. It thereby contributes to debates about what kind of capacity underlies amusement and what distinguishes it from other phenomena of the mind. There may also be some implications for

empirical research: In the paper I also show that amusement is an automatic but not unintelligent process. So it may be worthwhile to empirically investigate the similarities and differences between the cognitive mechanism of amusement and the mechanisms of other automatic processes such as.

Chapter five constituted a shift in perspective because the two papers that are included in it do not exclusively tackle specific issues within the philosophy of humor. They instead link humor research to other fields of philosophical inquiry. The first paper was concerned with the connection of scientific evidence and conceptual theories. More than often it is implicitly assumed – rather than explicitly argued for – that scientific evidence can overthrow conceptual theory. Our leading question was under which conditions it is justified to revise a conceptual theory in the light of scientific evidence. In the paper, we argued that a conceptual theory can only be overthrown in the light of scientific evidence if it is 'ontologically committed' to something that is actually subject to empirical investigation. We introduced the idea of ontological commitment and distinguished its various forms. We applied this argumentation to an example from the philosophy of humor: The so-called 'neuroanatomical approach' to amusement put forward by Palencik (2007). This approach holds that certain conceptual issues in philosophy of humor can be settled in the light of recent findings regarding causal processes of amusement. We showed that the neuroanatomical approach fails because the philosophical accounts in question do not make ontological commitments in the required sense.

Given that the ideas developed in this paper apply to conceptual theory in general, they may prove useful for theorizing about humor and amusement. However, although we primarily use a recent account of amusement as an illustration, our suggestions are not limited to philosophy of humor but also apply to the broader relationship of philosophy, common sense, and science. Hence, the paper makes a contribution to an important general issue in philosophy. The results of the paper may also be of value in interdisciplinary discussions between philosophers and scientists, because the idea of an ontological commitment may help to differentiate issues where empirical evidence truly has a bearing on conceptual theory. For this reason, it may help to avoid misunderstandings and talking past each other.

In the second paper of chapter five I drew a connection between the seemingly distant fields of philosophy of humor and philosophy of technology. More specifically, I utilized Henri Bergson's (1911) account of comic amusement and

laughter to philosophize about our relation to technology. Amusement, so Bergson, arises when something inflexible, or mechanic, takes the place of something that is supposed to be flexible and organic. This inflexibility pertains to the body as well as the mind. According to Bergson, acting and thinking in a rigid and automatic fashion are sources of comic amusement. Because rigidity is a threat to the social fabric, Bergson argues that laughter is a social corrective that disciplines the rigid machine-like person. Machine-like people are not sensitive to what the situation requires and are unable to adapt to other people. In the paper, I demonstrated that keeping Bergson's views on the comic and laughter in mind might sensitize us to the ways that technology actually makes humans less flexible and rigid, by sometimes enabling mindless automatic and repetitive habits, e.g. compulsively checking cellphones or social media. Laughter and amusement, or so I have argued, can alert us to this detrimental effect of technology.

Philosophers of technology have paid but scant attention to the writings of Henri Bergson. The second paper of chapter five seeks to ameliorate this. Hence, the paper contributes to the advancement of philosophy of technology in expanding its scope and may result in further insights based on Bergson's ideas. Further, the paper brings philosophy of technology and philosophy of humor into contact. This may prove to be the first step towards a fruitful conversation.

Overall, this thesis contributes to the increasing body of research on the long-neglected topics of humor and amusement and extends the much smaller body of work connecting humor studies to other disciplines. In sum, I hope that the papers of this thesis are beneficial to philosophy of humor and beyond.

References

- Anderson, M. L. (2010). Neural reuse: A fundamental organizational principle of the brain. *Behavioral and Brain Sciences*, 33(04), 245–266. doi:10.1017/S0140525X10000853
- Attardo, S. (2008). Semantics and Pragmatics of Humor. Language and Linguistics Compass, 2(6), 1203–1215. https://doi.org/10.1111/j.1749-818X.2008.00107.x
- Attardo, S., & Raskin, V. (1991). Script theory re-vis(it)ed: Joke similarity and joke representation model. *Humor International Journal of Humor Research*, 4(3/4), 293–347.
- Auvray, M., & Spence, C. (2008). The multisensory perception of flavour.
 Consciousness and Cognition, 17, 1016–31.
- Baggini, J., & Fosl. P. S. (2010). The Philosopher's Toolkit. Malden, Oxford:
 Wiley-Blackwell.
- Bain, D., & Brady, M. (2014). Pain, Pleasure, and Unpleasure. Review of
 Philosophy and Psychology, 5(1), 1–14. http://doi.org/10.1007/s13164-014-0176-5
- Bargh, J. A. (1994). The Four Horsemen of automaticity: Awareness,
 efficiency, intention, and control in social cognition, in: R. S. Wyer, Jr., & T. K.
 Srull (Eds.), Handbook of social cognition (2nd ed., pp. 1-40). Hillsdale, NJ:
 Erlbaum.
- Barrett, H. C. (2005). Enzymatic Computation and Cognitive Modularity.
 Mind and Language, 20(3), 259–287. doi:10.1111/j.0268-1064.2005.00285.x
- Barrett, L. F. (2006). Are Emotions Natural Kinds? Perspectives on Psychological Science, 1, 28-58.
- Barrett, L. F. (2012). Emotions are real. *Emotion*, 12, 413-429.
- Barrett, L. F., Quigley, K. S., Bliss-Moreau, E., & Aronson, K. R. (2004). Interoceptive Sensitivity and Self-Reports of Emotional Experience. *Journal of Personality and Social Psychology*, 87(5), 684–697. doi:10.1037/0022-3514.87.5.684
- Batty, C. (2011). Smelling lessons. Philosophical Studies, 153, 161–174.

- Beilock, S. L. & Gray, R. (2012). From Attentional Control to Attentional Spillover: A Skill-Level Investigation of Attention, Movement, and Performance Outcomes, *Human Movement Science* 31(6), 1473–99. doi:10.1016/j.humov.2012.02.014
- Ben-Ze'ev, B., Sander, D., & Scherer, K. R. (2009). Schadenfreude. In Oxford Companion to Emotion and the Affective Sciences (pp. 353-354). Oxford;
 New York: Oxford University Press.
- Berg Olsen, J. K. B., Pedersen, S. A., Hendricks, V. F. (eds). (2012). A
 Companion to the philosophy of technology. Wiley-Blackwell, Malden, Oxford
- Bergson, H. (1914). Laughter: An Essay on the Meaning of the Comic (trans:
 Brereton, C. & Rothwell F.). Macmillan, New York
- Bergson, H. (1917). Laughter: An Essay on the Meaning of the Comic. New York: Macmillan.
- Bergson, H. (1998). Creative Evolution (trans: Mitchell A). Dover, London
- Berker, S. (2009). The Normative Insignificance of Neuroscience. *Philosophy and Public Affairs*, *37*(4), 293–329.
- Berns, G. S. (2004). Something funny happened to reward. Trends in
 Cognitive Sciences, 8(5), 193. http://doi.org/10.1016/j.tics.2004.03.007
- Berridge, K. C. (2009). Wanting and Liking: Observations from the
 Neuroscience and Psychology Laboratory. Inquiry, 52(4), 378–398.
 http://doi.org/10.1080/00201740903087359
- Bickle, J. (1998). Psychoneural Reduction. The New Wave. Cambridge, MA:
 MIT Press.
- Blackburn, S. (1998). *Ruling Passions*. Oxford: Clarendon Press.
- Blackman, R. D. (2013). Intentionality and Compound Accounts of the Emotions. The Southern Journal of Philosophy, 51(1), 67–90.
 http://doi.org/10.1111/sjp.12007
- Brandl, J. L., Esken, F., Priewasser, B., & Rafetseder, E. (2015). Young children's protest: what it can (not) tell us about early normative understanding. *Phenomenology and the Cognitive Sciences*, *14*(4), 719–740. http://doi.org/10.1007/s11097-015-9437-8
- Brandom, R. (2000). Articulating Reasons: An introduction to inferentialism. Cambridge, Mass.: Harvard University Press.

- Bressler, E. R., Martin, R. A., & Balshine, S. (2006). Production and appreciation of humor as sexually selected traits. *Evolution and Human Behavior*, 27(2), 121–130.
 - https://doi.org/10.1016/j.evolhumbehav.2005.09.001
- Browne, M. N., & Keeley, S. M. (2007). Asking the right Questions. A critical guide to thinking (8th ed.). Upper Saddle River: Pearson.
- Brun, G., Kuenzle, D. (2016). Introduction: A new role for emotions is epistemology, In: Epistemology and Emotions (Brun, Doguoglu, Kuenzle, eds.), London, New York: Routledge, (1-33).
- Buskell, A. (2015). How to Be Skilful: Opportunistic Robustness and
 Normative Sensitivity, Synthese 192(5), 1445–66.
- Byrne, D. (1956). The relationship between humor and the expression of hostility. *The Journal of Abnormal and Social Psychology*, *53*(1), 84–89. https://doi.org/10.1037/h0043918
- Cannon, W. B. (1927). The James-Lange theory of emotions: A critical examination and an alternative theory. *The American Journal of Psychology*, 39, 106–124.
- Caron, J. E. (2002). From ethology to aesthetics: Evolution as a theoretical paradigm for research on laughter, humor, and other comic phenomena.
 Humor: International Journal of Humor Research, 15, 245-281.
- Carr, N. G. (2011). The shallows: What the Internet is doing to our brains.
 Norton, New York
- Carroll, N. (1991). On Jokes. Midwest Studies in Philosophy, 16(1), 280–301.
 https://doi.org/10.1111/j.1475-4975.1991.tb00244.x
- Carroll, N. (2014). Ethics and Comic Amusement. The British Journal of Aesthetics, 54(2), 241–253. http://doi.org/10.1093/aesthj/ayu015
- Carroll, N. (2014). Humor: A very short introduction. Oxford: Oxford University Press.
- Carnap, R. (1956). The Methodological Character of Theoretical Concepts. In
 H. Feigl and M. Scriven (eds.), *Minnesota Studies in the Philosophy of Science I* (pp. 38-76). Minneapolis: University of Minnesota Press.
- Chafe, W. (2007). *The Importance of Not Being Earnest. The feeling behind laughter and humor*. Amsterdam, Philadelphia: John Benjamins.

- Church, A. (1958). Ontological commitment. *Journal of Philosophy*, 55(23), 1008–1014.
- Churchland, P. M. (1981). Eliminative Materialism and the Propositional Attitude. *Journal of Philosophy*, 78(2), 67–90.
- Clark, K. (2011). The GPS: A Fatally Misleading Travel Companion.
 http://www.npr.org/2011/07/26/137646147/the-gps-a-fatally-misleading-travel-companion [http://perma.cc/TH2G-LAJJ], (Accessed February 16, 2015)
- Clark, M. (1970). Humour and Incongruity. *Philosophy*, 45(117), 20–32.
- Clark, M. (1987). Humour, laughter and the structure of thought. *British Journal of Aesthetics*, *27*(3), 238–246.
- Cohen, T. (2001). Humor. In B. Gaut & D. McIver Lopes (Eds.), The Routledge
 Companion to Aesthetics (pp. 375–380). London, New York.
- Corns, J. (2014). Unpleasantness, Motivational Oomph, and Painfulness.
 Mind & Language, 29(2), 238–254. https://doi.org/10.1111/mila.12048
- Coulson, S. (2001). Semantic Leaps: Frame-Shifting and Conceptual Blending in Meaning Construction, Cambridge: Cambridge University Press.
- Cova, F., & Deonna, J. A. (2014). Being moved. *Philosophical Studies*, 169(3),
 447–466. https://doi.org/10.1007/s11098-013-0192-9
- Crestani, F. (1997). Application of Spreading Activation Techniques in Information Retrieval, *Artificial Intelligence Review*, 11 (6), 453–482.
- Critchley, S. (2002). On humour, London; New York: Routledge.
- Cummins, R. (2000). "How does it work" vs "What are the laws"?: Two conceptions of psychological explanation. In F. Keil & R. Wilson (Eds.), Explanation and Cognition (117-144). Cambridge, MA: MIT Press.
- Cundall Jr, M. K. (2007). Humor and the Limits of Incongruity. *Creativity Research Journal*, 19(2/3), 203–211. doi:10.1080/10400410701397263
- D'Arms, J., Jacobson, D. (2000). The moralistic fallacy: on the 'appropriateness' of emotions. Philosophy and Phenomenological Research 61, 65–90.
- Damasio, A. R. (1994). *Descartes' Error: Emotion, Reason, and the Human Brain*. New York: G. P. Putnam's Sons.
- Damasio, A. R. (1999). The Feeling of What Happens: Body and Emotion in the Making of Consciousness. Harcourt Brace and Co.

- Davidson, D. (1980). Essays on Actions and Events. Oxford: Clarendon Press.
- Davidson, D. (2001). Inquiries into Truth and Interpretation, 2nd Edition.
 Oxford: Clarendon Press.
- de Sousa, R. (1987). The Rationality of Emotion, Cambridge MA: Cambridge University Press.
- Dennett, D. (1991). Real Patterns. *The Journal of Philosophy* 88 (1): 27-51.
- Dennett, D. C. (1981). *Brainstorms*. MIT Press.
- Dennett, D. C. (1995). Do Animals have Beliefs? In H. Roitblat & J. Meyer (Eds.), Comparative Approaches to Cognitive Science (111-118). Cambridge, MA: MIT Press.
- Dennett, D. C. (1997). True Believers: The Intentional Strategy and Why It Works. In J. Haugeland (ed.), Mind Design II: Philosophy, Psychology, Artificial Intelligence (pp. 57-79). Cambridge, MA.: The MIT Press.
- Deonna, J. A. (2006). Emotion, Perception and Perspective. *Dialectica*, 60(1),
 29–46. http://doi.org/10.1111/j.1746-8361.2005.01031.x
- Deonna, J. A., & Scherer, K. R. (2010). The Case of the Disappearing
 Intentional Object: Constraints on a Definition of Emotion. *Emotion Review*,
 2(1), 44–52. https://doi.org/10.1177/1754073909345544
- Descartes, R. (1985). The philosophical writings of Descartes. (John Cottingham, Robert Stoothoff, & Dugald Murdoch, Trans.) (Vol. 1).
 Cambridge; New York: Cambridge University Press.
- Dieveney, P. (2008). Ontological infidelity. *Synthese*, *165*(1), 1–12.
- Dineh, D. (2008). Communication and Humor. In V. Raskin (Ed.), The Primer of Humor Research (pp. 543–568). Berlin, New York: Mouton De Gruyter.
- Dreyfus, S. (2004). The Five-Stage Model of Adult Skill Acquisition, Bulletin of Science, Technology and Society 24(3), 177–81.
 doi:10.1177/0270467604264992
- Dreyfus, H. (2002). Intelligence without Representation Merleau-Ponty's
 Critique of Mental Representation The Relevance of Phenomenology to
 Scientific Explanation, *Phenomenology and the Cognitive Sciences* 1(4), 367–83.
- Du, X., Qin, Y., Tu, S., Yin, H., Wang, T., Yu, C., & Qiu, J. (2013).
 Differentiation of stages in joke comprehension: Evidence from an ERP study.

- International Journal of Psychology, 48(2), 149–157. https://doi.org/10.1080/00207594.2012.665162
- Duhem, P. (1906/1991). The Aim and Structure of Physical Theory. Transl. by
 P. Wiener. Princeton: Princeton University Press.
- Dusek, V. (2009). Philosophy of technology: An introduction. Wiley-Blackwell, Malden, Oxford
- Elstein, D. Y., & Hurka, T. (2009). From Thick to Thin: Two Moral Reduction
 Plans. Canadian Journal of Philosophy, 39(4), 515-35.
- Epstein, S., & Smith, R. (1956). Repression and insight as related to reaction to cartoons. *Journal of Consulting Psychology*, 20(5), 391–395.
 https://doi.org/10.1037/h0040566
- Fauconnier, G. & Turner, M. (2002): *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*, Basic Books.
- Feibleman, J. K. (1965). Artifactualism, Philosophy and Phenomenological
 Research 25(4):544-559
- Ferguson, M. & Ford, T. (2008). Disparagement humor: A theoretical and empirical review of psychoanalytic, superiority, and social identity theories. Humor. International Journal of Humor Research, 21(3), 283-312.
- Ferré, F. (1995). Philosophy of Technology. University of Georgia Press,
 Athens
- Feuer, A. (2015). Taking a Swipe at Love (or Something), The New York
 Times, February 15: MB1
- Feyerabend, P. (1962). Explanation, Reduction and Empiricism. In H. Feigl and G. Maxwell (eds.), Scientific Explanation, Space, and Time (Minnesota Studies in the Philosophy of Science, Volume III) (pp. 28-97). Minneapolis: University of Minneapolis Press.
- Fodor, J. A. (1974). Special Sciences, or The Disunity of Science as a Working Hypothesis. *Synthese* 28(2), 97-115.
- Fodor, J. A. (1983). *The Modularity of Mind*. Cambridge MA: MIT Press.
- Fodor, J. A. (1989). *Psychosemantics*. Cambridge MA: MIT Press.
- Forabosco, G. (1992). Cognitive aspects of the humor process: the concept of incongruity. *Humor International Journal of Humor Research*, *5*(1-2), 45–68. https://doi.org/10.1515/humr.1992.5.1-2.45

- Forabosco, G. (2008). Is the Concept of Incongruity Still a Useful Construct for the Advancement of Humor Research? *Lodz Papers in Pragmatics*, 4(1), 45–62. doi:10.2478/v10016-008-0003-5
- Ford, T. E., Richardson, K., & Petit, W. E. (2015). Disparagement humor and prejudice: Contemporary theory and research. HUMOR, 28(2), 171–186.
 http://doi.org/10.1515/humor-2015-0017
- Frank, A. (2011). About Time. Cosmology and Culture at the Twilight of the
 Big Bang. New york, Ny: Free Press
- Franklin, R. G., Adams, R. B. (2011). The reward of a good joke: neural correlates of viewing dynamic displays of stand-up comedy. *Cognitive, Affective & Behavioral Neuroscience* 11(4): 508–515
- Franssen, M., Lokhorst G.-J., van de Poel, I. (2013). Philosophy of Technology. In: Zalta E (ed) Stanford Encyclopedia of Philosophy (Winter 2013 Edn), http://plato.stanford.edu/archives/win2013/entries/technology/[http://perma.cc/85U8-R62G], (Accessed February 16, 2015)
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313–332. https://doi.org/10.1080/02699930441000238
- Freud, S. (1928). Humor. *International Journal of Psycho-Analysis*, 9, 1–6.
- Freud, S. (1990). Der Witz und seine Beziehung zum Unbewußten. Fischer, Frankfurt a. M.
- Fried, I., et al. (1998). Electric current stimulates laughter. *Nature*, 391(6668),
 650.
- Fridland, E. (2015). Automatically Minded, *Synthese* (online first),
 doi:10.1007/s11229-014-0617-9.
- Fridland, E. (2014). They've Lost Control: Reflections on Skill, Synthese
 191(12), 2729–50.
- Frijda, N. H. (1986). The emotions. Cambridge; New York: Paris: Cambridge
 University Press
- Gabora, L., & Kitto, K. (2017). Toward a Quantum Theory of Humor.
 Frontiers in Physics, 4. https://doi.org/10.3389/fphy.2016.00053
- Gallagher, S. (2003). Phenomenology and experimental design: Toward a
 phenomenologically enlightened experimental science. *Journal of Consciousness Studies*, 10(9-10), 85-99.

- Gendler, T., & Kovakovich, K. (2006). Genuine Rational Fictional Emotions.
 In M. Kieran (Ed.), Contemporary Debates in Aesthetics and the Philosophy of Art (pp. 241–253). Malden, Oxford: Blackwell.
- Gerard, A. (1759). *An essay on taste*. London: Millar, Kincaid, Bell.
- Gervais, M., & Wilson, D. S. (2005). The evolution and functions of laughter and humor: a synthetic approach. *Quarterly Review of Biology*, 80(4), 395–430.
- Göktürk, M., Pakkan, A. (2013). Effects of In-Car Navigation Systems on User Perception of the Spatial Environment. Design, User Experience, and Usability. User Experience in Novel Technological Environments. Lecture Notes in Computer Science 8014:57-64.
- Goel, V. & Dolan, R. J. (2001). The Functional Anatomy of Humor:
 Segregating Cognitive and Affective Components, *Nature Neuroscience* 4(3),
 237.
- Goldie, P. (2002). *The Emotions: a philosophical exploration*. Oxford: Oxford
 University Press.
- Griffiths, P. (1997). What emotions really are: the problem of psychological categories. Chicago, Ill: University of Chicago Press.
- Gruner, C. R. (1997). *The Game of Humor: A comprehensive Theory of Why we laugh*. New Brunswick: Transaction Publishers.
- Guerlac, S. (2006). Thinking in Time: An Introduction to Henri Bergson.
 Cornell University Press, Ithaca
- Hacking, I. (1999). The Social Construction of What? Cambridge, MA.:
 Harvard University Press.
- Hacking, I. (2007). Natural Kinds: Rosy Dawn, Scholastic Twilight. In A.
 O'hear (ed.), *Philosophy of Science* (pp. 203-239). Cambridge: Cambridge University Press.
- Haidt, J., Bjorklund, F., & Murphy, S. (2000). *Moral dumbfounding: When intuition finds no reason. Unpublished manuscript.* University of Virginia.
- Haidt, J., Koller, S. H., & Dias, M. G. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality and Social Psychology*, 65(4), 613–628.
- Hall, J. A. (2017). Humor in romantic relationships: A meta-analysis: Humor meta-analysis. *Personal Relationships*. https://doi.org/10.1111/pere.12183

- Hamann, S., & Mao, H. (2002). Positive and negative emotional verbal stimuli elicit activity in the left amygdala. *Neuroreport*, 13 (1), 15–19.
- Hanaway, C. (2012). Laughing Matter: Phenomenological Takes on the Mind/Body Problem in Ulysses and Early Cinema. Literature and History 21(1):6-23
- Hartz, G. A., & Hunt, R. (1991). Humor: The Beauty and the Beast. American
 Philosophical Quarterly, 28(4), 299–309.
- Hemenover, S. H., & Schimmack, U. (2007). That's disgusting! ..., but very amusing: Mixed feelings of amusement and disgust. Cognition & Emotion, 21(5), 1102–1113. http://doi.org/10.1080/02699930601057037
- Henderson, R. A., Williamson, K., Cumming, et al. (2007). Inherited PAX6,
 NF1 and OTX2 mutations in a child with microphthalmia and aniridia.
 European Journal of Human Genetics, 15(8), 898–901.
 doi:10.1038/sj.ejhg.5201826
- Henkel, L. A. (2013). Point-and-Shoot Memories: The Influence of Taking
 Photos on Memory for a Museum Tour. Psychological Science 25:396–402
- Hobbes, T. (1998). Leviathan. (J. C. A. Gaskin, Ed.). Oxford; New York:
 Oxford University Press.
- Hohwy, J. (2013). The Predictive Mind, Oxford, New York: Oxford University Press.
- Hornsby, J. (1997). Simple mindedness: in defense of naive naturalism in the philosophy of mind. Cambridge, Mass.: Harvard Univ. Press.
- Hurley, M. M., Dennett, D. C., & Adams Jr, R. B. (2011). Inside Jokes.
 Cambridge MA; London: MIT Press.
- Hutcheson, F. (1973). Reflections upon laughter. In P. Kivy (Ed.), Francis
 Hutcheson: an inquiry concerning beauty, order, harmony, design (pp. 103–120). The Hague: Martinus Nijhoff.
- James, W. (1884). What is an Emotion. *Mind*, 9(34), 188–205.
- Jones, P. (1982). Laughter. Aristotelian Society Supplementary Volume, 56,
 212–228.
- Jordan, A., & Patridge, S. (2012). Against the Moralistic Fallacy: A Modest
 Defense of a Modest Sentimentalism about Humor. *Ethical Theory and Moral Practice*, 15(1), 83–94.

- Joyce, R. (1997). Cartesian Memory. Journal of the History of Philosophy,
 35(3), 375–393.
- Kant, I. (2008). Anthropologie in pragmatischer Hinsicht. Stuttgart: Reclam.
- Keith-Spiegel, P. (1972). Early Conceptions of Humor: Varieties and Issues. In J. H. Goldstein & P. E. McGhee (Eds.), The psychology of humor: Theoretical perspectives and empirical issues (pp. 4–39). New York: Academic Press.
- Kelly, D. R. (2011). *Yuck!: the nature and moral significance of disgust.*Cambridge, Mass.: MIT Press.
- Kenny, A. (2003). Action, emotion, and will. London; New York: Routledge.
- Kieran, M. (2002). On Obscenity: The Thrill and Repulsion of the Morally Prohibited. *Philosophy and Phenomenological Research*, 64(1), 31–55.
 http://doi.org/10.1111/j.1933-1592.2002.tb00141.x
- Kincaid, H., & Sullivan, J. (Eds.) (2014). Classifying Psychopathology:
 Mental Kinds and Natural Kinds. Cambridge, MA.: MIT Press.
- Kivy, P. (2003). Jokes are a laughing matter. Journal of Aesthetics and Art Criticism 61(1): 5–15
- Klein, C. (2014). The Penumbral Theory of Masochistic Pleasure. Review of Philosophy and Psychology, 5(1), 41–55. http://doi.org/10.1007/s13164-013-0169-9
- Knox, I. (1951). Towards a philosophy of humor. Journal of Philosophy
 48(18): 541–548
- Knox, I. (1952). The comic, the tragic, and the cynical: Some notes on their ethical dimensions. Ethics 62(3): 210–214.
- Koestler, A. (1964). The Act of Creation: A Study of the Conscious and Unconscious Processes of Humor, Scientific Discovery and Art. London: Hutchison Press.
- Korsmeyer, C. (2011). Savoring disgust: the foul and the fair in aesthetics. New York: Oxford University Press.
- Kouchaki, M., & Smith, I. H. (2013). The Morning Morality Effect: The Influence of Time of Day on Unethical Behavior. *Psychological Science*, 25(1), 95–102. doi:10.1177/0956797613498099
- Kusch, M. (1999). Psychological Knowledge: A Social History and Philosophy. New York, NY.: Routledge.

- Kyle, B. (2013). How Are Thick Terms Evaluative? *Philosophers' Imprint*,
 13(1), 1–20.
- Latta, R. L. (1999). The Basic Humor Process: A Cognitive-Shift Theory and the Case against Incongruity. Berlin: Walter de Gruyter.
- Lefcourt, H. M., Davidson, K., Prkachin, K. M., & Mills, D. E. (1997). Humor as a stress moderator in the prediction of blood pressure obtained during five stressful tasks. *Journal of Research in Personality* 31, 523–542.
- Lintott, S. (2016). Superiority in Humor Theory. The Journal of Aesthetics and Art Criticism, 74(4), 347–358.
- Lippitt, J. (1994). Humour and incongruity. Cogito, 8(2), 147–153.
- Macchi, M. M. & Bruce, J. N. (2004). Human pineal physiology and functional significance of melatonin. *Frontiers in Neuroendocrinology*, 25(3-4), 177–195. doi:10.1016/j.yfrne.2004.08.001
- Machery, E. (2012). Why I stopped worrying about the definition of life... and why you should as well. *Synthese*, 185(1), 145–164.
- Marinkovic, K. et al. (2011). Right Hemisphere Has the Last Laugh: Neural Dynamics of Joke Appreciation, *Cognitive, Affective & Behavioral Neuroscience* 11,(1), 113–30, doi:10.3758/s13415-010-0017-7.
- Marrati, P. (2010). The natural cyborg: The stakes of Bergson's philosophy of evolution. The Southern Journal of Philosophy 48: 3–17.
- Martin, R. (2006). The Psychology of Humor: An Integrative Approach. San Diego: Academic Press.
- McDonald, P. (2012). The philosophy of humour. HEB Humanities E-Books,
 Penrith.
- McGraw, A. P., Warren, C., Williams, L. E., & Leonard, B. (2012). Too Close for Comfort, or Too Far to Care? Finding Humor in Distant Tragedies and Close Mishaps. Psychological Science, 23(10), 1215–1223.
 http://doi.org/10.1177/0956797612443831
- McGraw, A. P., Williams, L. E., & Warren, C. (2013). The Rise and Fall of Humor: Psychological Distance Modulates Humorous Responses to Tragedy. Social Psychological and Personality Science. http://doi.org/10.1177/1948550613515006
- McGraw, P., & Warner, J. (2014). The humor code: a global search for what makes things funny. New York: Simon & Schuster.

- McGraw, P., & Warren, C. (2010). Benign violations: making immoral behavior funny. *Psychological Science*, 21(8), 1141–9.
- McNeill, W. E. S. (2012). On Seeing That Someone is Angry. European Journal of Philosophy, 20(4), 575-597. http://doi.org/10.1111/j.1468-0378.2010.00421.x
- Michael, M. (2008). Implicit ontological commitment. *Philosophical Studies*,
 141(1), 43–61. doi:10.1007/s11098-008-9262-9
- Milner Davis, J. (2014). Bergson's theory of the comic. In: S Attardo (ed.) Encyclopedia of Humor Studies. SAGE Publications, Los Angeles, London, pp 77–80.
- Minsky, M. (1981). Jokes and their Relation to the Cognitive Unconscious. In:
 Cognitive Constraints on Communication, Vaina and Hintikka (eds.) Reidel,
 1981
- Mitcham, C. (1994). Thinking through technology. University of Chicago Press, Chicago, London.
- Mobbs, D., Greicius, M. D., Abdel-Azim, E., Menon, V., & Reiss, A. L. (2003).
 Humor Modulates the Mesolimbic Reward Centers. Neuron, 40(5), 1041–
 1048. http://doi.org/10.1016/s0896-6273(03)00751-7
- Moll, J., de Oliveira-Souza, R., Moll, F. T., Ignácio, F. A., Bramati, I. E.,
 Caparelli-Dáquer, E. M., & Eslinger, P. J. (2005). The moral affiliations of disgust: a functional MRI study. *Cognitive and Behavioral Neurology:* Official Journal of the Society for Behavioral and Cognitive Neurology, 18(1), 68–78.
- Montague, M. (2009). The logic, intentionality, and phenomenology of emotion. *Philosophical Studies*, *145*(2), 171–192.
 https://doi.org/10.1007/s11098-008-9218-0
- Montero, B. (2010). Does Bodily Awareness Interfere with Highly Skilled
 Movement?" *Inquiry*, 53, no. 2 (2010), 105-122.
- Moors, A., Ellsworth, P. C., Scherer, K. R., & Frijda, N. H. (2013). Appraisal Theories of Emotion: State of the Art and Future Development. *Emotion Review*, 5(2), 119–124. https://doi.org/10.1177/1754073912468165
- Moran, C. C., & Massam, M. M. (1999). Differential influences of coping humor and humor bias on mood. *Behav Med*, 25(1), 36–42.
 https://doi.org/10.1080/08964289909596737

- Morreall, J. (1983). Humor and emotion. American Philosophical Quarterly,
 20(30), 297–304.
- Morreall, J. (1987). *The Philosophy of Laughter and Humor*. Albany: SUNY.
- Morreall, J. (2009). Comic Relief: A Comprehensive Philosophy of Humor.
 Malden, Oxford: Wiley-Blackwell.
- Morreall, J. (2013). Philosophy of Humor. The Stanford Encyclopedia of Philosophy. Retrieved from http://plato.stanford.edu/archives/spr2013/entries/humor/
- Morton, A. (2014). Surprise. In S. Roeser & C. Todd (Eds.), *Emotion and Value* (pp. 137–146). Oxford, New York: Oxford University Press.
- Mulligan, K. (1998). From appropriate emotions to value. *The Monist*, 161–88.
- Nanicelli, T. (2014). Moderate Comic Immoralism and the Genetic Approach to the Ethical Criticism of Art. The Journal of Aesthetics and Art Criticism, 72(2), 169–179.
- Nasar, J. L., Troyer, D. (2013). Pedestrian injuries due to mobile phone use in public places. Accident Analysis & Prevention, 57:91-95.
- Neely, M. et al. (2012). Neural Correlates of Humor Detection and Appreciation in Children, *Journal of Neuroscience* 32(5), 1784–90. doi:10.1523/jneurosci.4172-11.2012.
- Nisbett, R. E. (2004). The geography of thought: how Asians and Westerners think differently ... and why (reprint). New York: Free Press.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84(3), 231–59.
- North, M. (2009). Machine-age comedy. Oxford University Press, Oxford,
 New York.
- Nudds, M. (2001). Common-sense and scientific psychology. *Croatian Journal of Philosophy*, 1(2), 171–180.
- Nussbaum, M. (2004). Emotions as judgments of value and importance. In R.
 C. Solomon (Ed.), *Thinking About Feeling: Contemporary Philosophers on Emotions* (pp. 181–199).
- O'Brien, W. (2014). Boredom. Analysis, 74(2), 236–244.
 http://doi.org/10.1093/analys/anu041

- Ongley, S. F., & Malti, T. (2014). The role of moral emotions in the development of children's sharing behavior. Developmental Psychology, 50(4), 1148–1159. http://doi.org/10.1037/a0035191
- Ongley, S. F., Nola, M., & Malti, T. (2014). Children's giving: moral reasoning and moral emotions in the development of donation behaviors. Frontiers in Psychology, 5. http://doi.org/10.3389/fpsyg.2014.00458
- Oring, E. (2003). Engaging Humor. Urbana, Chicago: University of Illinois Press.
- Oring, E. (2011). Parsing the joke: The General Theory of Verbal Humor and appropriate incongruity. *Humor: International Journal of Humor Research*,
 24(2), 203–222. http://doi.org/10.1515/humr.2011.013
- Ortony, A., Clore, G. L., & Collins, A. (1999). The cognitive structure of emotions (Reprinted). Cambridge: Cambridge Univ. Press.
- Palencik, J. T. (2007). Amusement and the philosophy of emotion: A neuroanatomical approach. *Dialogue*, 46(3), 419–434.
- Papineau, D. (2009). Naturalism. The Stanford Encyclopedia of Philosophy.
 Retrieved from
 http:/plato.stanford.edu/archives/spr2009/entries/naturalism/
- Parvulescu, A. (2010). Laughter: Notes on a Passion. Cambridge, New York:
 MIT Press.
- Peacock, H. (2011). Two Kinds of Ontological Commitment. *The Philosophical Quarterly*, 61(242), 79–104. doi:10.1111/j.1467-9213.2010.665.x
- Pickard, H. (2013). Irrational blame. Analysis, 73(4), 613–626.
 http://doi.org/10.1093/analys/ant075
- Plakias, A. (2013). The Good and the Gross. *Ethical Theory and Moral Practice*, 16(2), 261–278. http://doi.org/10.1007/s10677-012-9334-y
- Poldrack, R. A. (2006). Can cognitive processes be inferred from neuroimaging data? *Trends in cognitive sciences*, *10*(2), 59–63.
- Postman, N. (2006). Amusing ourselves to death: Public discourse in the age of show business (20th anniversary Edn). Penguin, New York.
- Prinz, J. (2004). Emotions embodied. In R. Solomon (Ed.), *Thinking About Feeling: Contemporary Philosophers on Emotions* (pp. 44–61). Oxford: Oxford University Press.

- Prinz, J. J. (2004). Gut reactions: a perceptual theory of emotion. Oxford:
 Oxford University Press.
- Prinz, J. J. (2006). Gut reactions: a perceptual theory of emotion. Oxford:
 Oxford University Press.
- Prinz, J. J. (2006). Is emotion a form of perception? *Canadian Journal of Philosophy*, *36*, 137–160.
- Provine, R. R. (2000). Laughter. A Scientific Investigation. New York: Viking.
- Proust, J. (2001). A Plea For Mental Acts, *Synthese* 129(1), 105–28.
- Putnam, H. (1975). The meaning of 'meaning'. Repr. in id., Mind, Language and Reality: Philosophical Papers vol. 2 (pp. 215-271). Cambridge University Press.
- Pylyshyn, Z. (1999). Is vision continuous with cognition? The case for cognitive impenetrability of visual perception, *Behavioral and Brain Sciences* 22, 341-365.
- Pylyshyn, Z. (1980). Computation and Cognition: Isssues in the Foundations of Cognitive Science, *Behavioral and Brain Sciences* 3, 111-132.
- Quine, W. V. (1960). Word and Object. Cambridge MA: The Mit Press.
- Quine, W. V. O. (1953). Two Dogmas of Empiricism. In D. Byrne & M. Kölbel (Eds.), From a Logical Point of View (Vol. 60, pp. 20–46). New York: Harper Torchbooks.
- Quine, W. van O. (1948). On What There Is. *Review of Metaphysics*, 2(5).
- Quine, W.V.O. (1969). Ontological Relativity and Other Essays. New York:
 Columbia University Press.
- Ramsey, F. P. (1929). Theories. In H. D. Mellor (ed.), *Foundations. Essays Philosophy, Logic, Mathematics and Economics* (pp. 101-125). London: Routledge & Kegan Paul.
- Raskin, V. (1985). Semantic Mechanisms of Humor. Dodrecht: Kluwer.
- Raskin, V. (1987). Linguistic Heuristics of Humor: A Script-Based Semantic
 Approach, *International Journal of the Sociology of Language*, 65, 11–25.
- Ribeiro, B. (2008). A Distance Theory of Humour, Think, 6(17), 139–148.
- Richardson, L. (2013). Flavour, Taste and Smell. Mind & Language, 28(3),
 322–341. doi:10.1111/mila.12020
- Ritchie, G. (2009). Variants of Incongruity Resolution. *Journal of Literary Theory*, 3(2), 1–20. doi:10.1515/JLT.2009.015

- Roberts, A. (2017). Humour is a Funny Thing. *British Journal of Aesthetics*, *forthcoming*.
- Roberts, D. (2013). Thick Concepts. *Philosophy Compass*, 8(8), 677–688.
 https://doi.org/10.1111/phc3.12055
- Roberts, R. C. (1988). Is amusement an emotion? American Philosophical Quarterly, 25(3).
- Roberts, Robert C. (2003). Emotions. An Essay in Aid of Moral Psychology.
 Cambridge University Press.
- Roberts, T. (2014). On Being Annoyed. *Ratio*, *27*(2), 190–204.
 https://doi.org/10.1111/rati.12032
- Roeser, S., & Todd, C. S. (Eds.). (2014). *Emotion and value* (First edition).
 Oxford: Oxford University Press.
- Rosa, H. (2003). Social Acceleration: Ethical and Political Consequences of a
 Desynchronized High-Speed Society. Constellations 10:3-33.
- Rosa, H. (2010) Alienation and acceleration: Towards a critical theory of latemodern temporality. Malmö: NSU Press.
- Rossano, F., Rakoczy, H., & Tomasello, M. (2011). Young children's understanding of violations of property rights. Cognition, 121(2), 219–227. http://doi.org/10.1016/j.cognition.2011.06.007
- Ruch, W., McGhee, P. E., & Hehl, F. J. (1990). Age Differences in the Enjoyment of Incongruity-Resolution and Nonsense Humor during Adulthood, *Psychology and Aging* 5(3), 348–55.
- Ruse, M. S. (2005). Technology and the Evolution of the Human: From
 Bergson to the Philosophy of Technology. Essays in Philosophy 6(1), 27.
- Ryan, K., & Kanjorski, J. (1998). The Enjoyment of Sexist Humor, Rape Attitudes, and Relationship Aggression in College Students. Sex Roles, 38(9-10), 743-756. doi:10.1023/A:1018868913615
- Ryle, G. (1949). The Concept of Mind, Chicago: University of Chicago Press.
- Salmela, M. (2006). True Emotions. The Philosophical Quarterly, 56(224),
 382–405. https://doi.org/10.1111/j.1467-9213.2006.00448.x
- Santayana, G. (1988). The sense of beauty: being the outlines of aesthetic theory. (W. G. Holzberger & H. J. Saatkamp, Eds.) (Critical ed). Cambridge, Mass: MIT Press.

- Sarewitz, D., Nelson, R. (2008). Three rules for technological fixes. Nature
 456(7224): 871–872
- Sauchelli, A. (2016, online first). Aesthetic Value, Artistic Value, and Morality.
 In D. Coady, K. Brownlee, & K. Lipper-Rasmussen (Eds.), Blackwell
 Companion to Applied Philosophy. Malden, Oxford: Blackwell.
- Sauer, H. (2011). The Appropriateness of Emotions: Moral Judgment, Moral Emotions, and the Conflation Problem. *Ethical Perspectives*, 18(1), 107–140. doi:10.2143/EP.18.1.2066215
- Schachter, S. & Singer, J. (1962). Cognitive, social, and physiological determinants of emotional state. *Psychological Review*, 69(5), 379–399. doi:10.1037/h0046234
- Scharff, R. C., Dusek, V. (Eds). (2003). Philosophy of technology: the technological condition: an anthology. Malden: Blackwell Publishers.
- Scheffler, S. (1987). Morality through thick and thin: A critical notice of ethics and the limits of philosophy. *The Philosophical Review*, *XCVI*, 411-434.
- Schmalzried, L. K. (2014). Kunst, Fiktion und Moral: die Relevanz des moralischen Werts eines Kunstwerks. Münster: Mentis.
- Schnall, S., Haidt, J., Clore, G. L., & Jordan, A. H. (2008). Disgust as Embodied Moral Judgment. *Personality and Social Psychology Bulletin*, 34(8), 1096–1109. doi:10.1177/0146167208317771
- Schopenhauer, A. (1988). Die Welt als Wille und Vorstellung (Vol. 1). Zürich:
 Haffmans Verlag.
- Schopenhauer, A. (2010). The world as will and representation. Cambridge;
 New York: Cambridge University Press.
- Schweiger Gallo, I., et al. (2012). Differential Effects of Various Types of Implementation Intentions on the Regulation of Disgust, *Social Cognition* 30(1), 1-17.
- Schweiger Gallo, I., et al. (2009). Strategic automation of emotion regulation,
 Journal of Personality and Social Psychology, 96, 11-31.
- Scruton, R. (1982). Laughter. Aristotelian Society Supplementary Volume,
 56, 197–212.
- Searle, J. R. (1994). Animal Minds. Midwest Studies in Philosophy, 19(1),
 206–219. http://doi.org/10.1111/j.1475-4975.1994.tb00286.x

- Sellars, W. (1997). Empiricism and the Philosophy of Mind. With an introduction by Richard Rorty and a Study Guide by Robert Brandom.
 Cambridge, MA: Harvard University Press.
- Shapiro, L. (2013). Dynamics and Cognition. Minds and Machines, 23(3), 353-375. doi:10.1007/s11023-012-9290-2
- Shargel, D. (2015). Emotions without objects. Biology & Philosophy, 30(6),
 831–844. https://doi.org/10.1007/s10539-014-9473-8
- Sharpe, R. A. (1975). Seven reasons why amusement is an emotion. *Journal of Value Inquiry*, 9(3), 201–203.
- Shaw, J. (2010). Philosophy of humor. *Philosophy Compass*, *5*(2), 112–126.
- Shepherd, J. (2015). Conscious Control over Action, Mind & Language 30(3), 320–44.
- Shultz, T. R. (2007). A Cognitive-Developmental Analysis of Humour. In
 Humor and laughter: Theory, research and applications (3rd ed., pp. 11–36).
- Shultz, T. R. (1976). A Cognitive-Developmental Analysis of Humour." In A. J.
 Chapman and H.C.Foot, Humour and Laughter: Theory, Research and
 Applications. New York: Wiley, 11-36.
- Shultz, T. R. (1974). Order of Cognitive Processing in Humour Appreciation,
 Canadian Journal of Psychology/Revue Canadienne de Psychologie 28 (4),
 409–20, doi:10.1037/h0082006.
- Sie, M., & Wouters, A. (2010). The BCN Challenge to Compatibilist Free Will and Personal Responsibility. *Neuroethics*, 3(2), 121–133. doi:10.1007/s12152-009-9054-8
- Smith, Q., & Jokic, A. (Eds.). (2003). Consciousness. New Philosophical Perspectives. Oxford, New York: Oxford University Press.
- Smith. J. (2013). 10 Reasons Why Humor Is A Key To Success At Work, Forbes Magazine, Web:
 - https://www.forbes.com/sites/jacquelynsmith/2013/05/03/10-reasons-why-humor-is-a-key-to-success-at-work/#4887223a5c90; Accessed April 18,2017.
- Smith, A.D.(2002). The Problem of Perception, Cambridge, Mass.: Harvard
 University Press
- Smuts, A. (2009). Do Moral Flaws Enhance Amusement? American
 Philosophical Quarterly, 46(2), 151–162.

- Smuts, A. (2013). The Salacious and the Satirical: In Defense of Symmetric Comic Moralism. Journal of Aesthetic Education, 47(4), 45–63.
 http://doi.org/10.5406/jaesteduc.47.4.0045
- Solomon, R. C. (2007). True to our feelings: what our emotions are really telling us. Oxford: Oxford University Press.
- Stepp, N., Chemero, A. & Turvey, M. T. (2011). Philosophy for the Rest of Cognitive Science. *Topics in Cognitive Science*, *3*, 425–437.
- Stich, S. P. (1998). *Deconstructing the mind*. New York: Oxford Univ. Press.
- Stokes, D. (2013). Cognitive Penetrability of Perception, *Philosophy Compass* 8, 646–663.
- Strawson, G. (2003). Mental Ballistics or the Involuntariness of Spontaneity,
 Proceedings of the Aristotelian Society 103: 227–56.
- Strohl, M. (2012). Horror and Hedonic Ambivalence. The Journal of Aesthetics and Art Criticism, 70(2), 203–212. http://doi.org/10.1111/j.1540-6245.2012.01512.x
- Suls, J. M. (1972). A two-stage model for the appreciation of jokes and cartoons: An information processing analysis. In J. Goldstein & P. McGhee (Eds.), *The psychology of humor: Theoretical perspectives and empirical issues* (pp. 81–100). New York: Academic Press.
- Sword, H. (2012). Stylish academic writing. Cambridge, Mass: Harvard University Press.
- Tappolet, C. (2005). Through thick and thin: good and its determinates.
 Dialectica, 58(2), 207–221. https://doi.org/10.1111/j.1746-8361.2004.tb00297.x
- Tappolet, C. (2015). Value and Emotions. In Iwao Hirose & Jonas Olson (Eds.), *The Oxford Handbook of Value Theory*. Oxford; New York: Oxford University Press.
- Teroni, F. (2007). Emotions and Formal Objects. *Dialectica*, *61*(3), 395–415.
 https://doi.org/10.1111/j.1746-8361.2007.01108.x
- Thomson, J. J. (2008). Normativity. Chicago, Ill: Open Court.
- Ullmann, L. P., & Lim, D. T. (1962). Case history material as a source of the identification of patterns of response to emotional stimuli in a study of humor. Journal of Consulting Psychology, 26(3), 221–225.
 https://doi.org/10.1037/h0041938

- Vaish, A., Missana, M., & Tomasello, M. (2011). Three-year-old children intervene in third-party moral transgressions: Children intervene in moral transgressions. British Journal of Developmental Psychology, 29(1), 124–130. http://doi.org/10.1348/026151010X532888
- Kurt VanLehn (1996). Cognitive Skill Acquisition, Annual Review of Psychology 47(1), 513–39, doi:10.1146/annurev.psych.47.1.513.
- Van Gelder, T. (1998). The roles of philosophy in cognitive science.
 Philosophical Psychology, 11(2), 117–136. doi:10.1080/09515089808573252.
- Vance, J. (2014). Emotion and the New Epistemic Challenge from Cognitive
 Penetrability, *Philosophical Studies* 169(2), 257–83.
- Väyrynen, P. (2012). Thick Concepts: Where's Evaluation? In R. Shafer-Landau (Ed.), Oxford Studies in Metaethics Volume 7 (pp. 235–270). Oxford University Press. Retrieved from http://www.oxfordscholarship.com/view/10.1093/acprof:oso/978019965349 2.001.0001/acprof-9780199653492-chapter-8
- Veatch, T. (1998). A theory of humor. *Humor International Journal of Humor Research*, *11*(2), 161–216.
- Vrticka, P., Black, J. M., & Reiss, A. L. (2013). The neural basis of humour processing. Nature Reviews Neuroscience, 14(12), 860–868.
 https://doi.org/10.1038/nrn3566
- Wajcman, J. (2015). Pressed for time: the Acceleration of Life in Digital
 Capitalism. Chicago: Chicago University Press.
- Warren, C., & McGraw, A. P. (2016). Differentiating what is humorous from what is not. *Journal of Personality and Social Psychology*, 110(3), 407–430. https://doi.org/10.1037/pspi0000041
- Watson, K. K., Matthews, B. J., & Allman, J. M. (2007). Brain Activation during Sight Gags and Language-Dependent Humor, Cerebral Cortex 17 (2), 314–24.
- Weems, S. (2014). *Ha!: the science of when we laugh and why*. New York: Basic Books.
- Whiting, D. (2012). Are emotions perceptual experiences of value? Ratio,
 25(1).
- Williams, B. (1985). *Ethics and the Limits of Philosophy*, London: Fontana.

- Williams, C. (2003). Perverted Attractions. The Monist, 86(1), 115–140.
 http://doi.org/10.2307/27903808
- Woodcock, S. (2015). Comic Immoralism and Relatively Funny Jokes. *Journal of Applied Philosophy*, 32(2), 203–216. http://doi.org/10.1111/japp.12084
- Wyer Jr., R. S. & Collins, J. E. (1992). A Theory of Humor Elicitation,
 Psychological Review 99(4), 663–88.
- Xu, H., Bègue, L., & Bushman, B. J. (2014). Washing the guilt away: effects of personal versus vicarious cleansing on guilty feelings and prosocial behavior.
 Frontiers in Human Neuroscience, 8. http://doi.org/10.3389

Affidavit

Eidesstattliche Versicherung/Affidavit

Hiermit versichere ich an Eides statt, dass ich die vorliegende Dissertation Amusement and Beyond selbstständig angefertigt habe, mich außer der angegebenen keiner weiteren Hilfsmittel bedient und alle Erkenntnisse, die aus dem Schrifttum ganz oder annähernd übernommen sind, als solche kenntlich gemacht und nach ihrer Herkunft unter Bezeichnung der Fundstelle einzeln nachgewiesen habe.

I hereby confirm that the dissertation *Amusement and Beyond* is the result of my own work and that I have only used sources or materials listed and specified in the dissertation.

Amsterdam, den 21.11. 2018 Unterschrift Steffen Steinert

Amsterdam, date signature

Declaration of author contributions

Setting the stage.

Steffen Steinert wrote this section.

Chapter One.

The Queen would not be amused: Steffen Steinert wrote the paper.

Cut to the cheese: Steffen Steinert wrote the paper.

Chapter Two

Amusement and incongruity: Steffen Steinert wrote the paper.

Chapter Three

Two souls alas! are dwelling in my breast: Steffen Steinert wrote the paper.

Chapter Four

Cultivate your funny bone?: Steffen Steinert wrote the paper.

Chapter Five

Who is afraid of commitment?: Steffen Steinert conceptualized the paper and drafted the first versions of the paper. Joachim Lipski contributed to specific sections and was involved in the review and editing.

Technology is a laughing matter: Steffen Steinert wrote the paper.