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PARDON, MAY I SUGGEST YOU ABANDON YOUR CAUSAL ILLUSION?

An essay on why our common sense view of volition should be rejected

Marian Schneider

Abstract The perceptual experience of our thoughts and actions suggests to us a two-step process of volition. Firstly, we consciously decide for a particular action, and then we execute this action. Converging evidence from neuroscience, however, challenges this common sense view of volition. The evidence suggests that our conscious thoughts cannot be the original cause of our actions. Rather, the decisions we make about our actions are only the result of unconscious processes in the brain. In this essay, I argue that, in view of recent neuroscientific findings, we need to discard our common sense account of volition as a causal illusion. In lieu thereof I argue the case for a new account of volition and sketch out how such an account could look like.

1 Introduction

We freely and consciously decide what we want to do – this assumption is so natural to us that we seldom come to doubt it. For example, writing this text

seems to be the result of my conscious will to write it. It is hard to imagine that anything but my conscious self makes me get up in the morning, makes me ride my bike to university and makes me write a text. This view of volition is based on the assumption that my actions are directly caused by my conscious thoughts: I consciously think of writing a text, therefore I write it. I refer to this view as the *common sense view of volition*. I call it the *common sense* view because it is based on perception of our thoughts and behavior that follows – it is based on what our *senses* 'tell' us. In this article, I argue that this common sense view of volition has to be discarded in light of recent neuroscientific findings.

The argument consists of five parts. In the first section the terms volition, voluntary action, and common sense account of volition are defined. In the second part Libet's Free Will Experiment and the criticism it attracted are discussed. Benjamin Libet (1985) conducted the most popular experiment in the field of volition. He presented evidence that the conscious will to bend our wrist is preceded by unconscious cerebral initiation, and concluded that our conscious will is initiated by unconscious cerebral processes. His conclusion was criticized on methodological and philosophical grounds. In the following section, I rebut some of these criticisms by presenting subsequent scientific evidence that corroborated and enhanced Libet's basic neurophysiologic findings. This leads me to argue that we have to discard our common sense account - if our decisions about our actions are caused by processes in the brain, then our conscious thoughts cannot be the original cause of our actions, and our common sense view of volition has to be wrong. In the fourth part, I sketch out the beginnings of a new account of volition. In the final section, I conclude that discarding the common sense view of volition and developing a new model of volition will bring us closer to understanding how we decide about our actions.

2 The common sense account of volition

Before I start making the case for a new account of volition, it is necessary to clarify what I mean by the terms i) volition and ii) common sense account of volition. Various authors have pointed out that there is no uncontroversial, definite concept of volition (Brass & Haggard, 2007; Roskies, 2010). As a result, it is challenging to define the concept clearly and succinctly, since it is closely related to other concepts such as the intention to act, (free) will, agency, and the sense of agency. The common aspect that connects said comments is that they make a statement about the way we decide about our voluntary actions. The concept of free will, for example, implies that we are free from externally imposed restric-

tions or compulsions when we decide about our actions (Libet, 1985). The sense of agency refers to a certain phenomenological experience ("qualia") that accompanies our decisions about actions: the conscious feeling of being causally involved in our own actions (Hallett, 2007). In this essay, I shall employ the term volition as an umbrella term for all these different aspects. I thus, for the purposes of this paper, define *volition as the grounds for our decisions about voluntary action*. Consequently, an account of volition answers the question of how we decide about our voluntary actions. Following the path taken by Haggard (2008), I define voluntary action as opposed to stimulus-driven actions: voluntary actions can be regarded to lie at one end of a continuum that has simple reflexes at the other end. While reflexes are immediate motor responses directly determined by a certain stimulus, voluntary action is in its occurrence not directly (or only very indirectly) determined by any external stimulus (Haggard, 2008).

The new definition of volition allows me to be more precise on what I mean by the common sense account of volition. Following the definition of volition, the common sense account notion has to explain how we decide about our voluntary actions. Accordingly, the *common sense account* postulates volition as a two-step process. First, we consciously make a decision about an action, and, second, this conscious decision causes our action. It is important to note that this account is intuitively appealing to humans as it corresponds to the sensory and perceptual experience of our actions. When we act, we introspectively reach the conclusion that volition occurs exactly the way the common sense account postulates. Likewise, it is consistent with the phenomenal experience of being agent over one's own body: it is compatible with the assumption that we are the agents of our action, since we are free to consciously decide about what we do or do not do in the first step of the volitional process.

Furthermore, I understand the common sense account to imply a dualistic view of causation. It assumes a mental 'I' that is different from the physical brain and body but that can still trigger brain events and bodily actions (Haggard, 2008). In other words, something mental, say our thoughts, is thought to influence something physical, say our body. This is not to suggest that the common sense view is necessarily incompatible with a materialistic or physicalistic viewpoint[1]. It could be, for example, envisioned that the first step of volition, the conscious deciding, is simply thought of as a phenomenal concept next to which

[1] In this essay, I understand *physicalism* as the viewpoint that phenomenal properties are identical with physical properties. *Materialism*, as the broader concept, I understand as the viewpoint that phenomenal properties are at least realized by physical properties, if not identical with physical properties (cf. Papineau, 2002).

also a material concept exists. However, both the material and phenomenal concepts could be considered as simply two different referring concepts to an ontologically unique state that is still materialistic (this view would correspond to the phenomenal concept strategy, for example proposed by David Papineau, 2002). Nonetheless, the way most adult humans formulate their views of volition entails a dualistic distinction between a mental 'I' that consciously decides what to do and a material brain and body that execute the actions specified by the mind. This dualistic implication might be problematic for reasons I discuss later on when I sketch out a new account of volition. Before that section, however, I will demonstrate why we have to discard our common sense account in the first place.

3 Libet's free will experiment

In 1985, Benjamin Libet reported an experiment he had conducted in order to examine how a voluntary action arises in relation to brain activity. Libet (1985) measured three variables, while his subjects performed a wrist flexion of their right hand (see Figure 1). Firstly, he measured the cerebral activity of his subjects by the help of an electroencephalography (EEG). More precisely, he measured a "readiness potential" (RP), a negative shift in electrical potential that is recorded on the human scalp. Secondly, he measured the timing of the wrist flexion by recording the movement with electromyography (EMG). Finally, Libet asked his participants to record the timing of their conscious decision to bend their wrist. To that end, participants watched the rotation of the hands of a clock during the experiment and remembered the position of the clock-hand, when they first 'felt the urge' to move their hand. After the performance of the wrist movement, participants had to report where the clock-hand had been (Schneider, 2010).

Libet found that movement of wrist flexion (M) was preceded by two different patterns of cerebral activity. On average, RP1 preceded M by 1050ms and RP2 proceeded M by 550ms. Libet (1985) explained the difference between the readiness potentials by assuming that RP1 involves "some general preplanning or preparation to act" (p.532), whereas RP2 does not. Most strikingly, Libet found that, on average, RP1 and RP2 also preceded the conscious intention to act (W) by 950ms or 350ms respectively; however, W still preceded the movement (M) by 200ms (see Figure 2). From these results, Libet concluded that unconscious cerebral processes initiate movements *before* the person concerned is conscious of this process. He argued, however, that conscious control over motor performance remains possible, as subjects can in fact 'veto' the performance during a

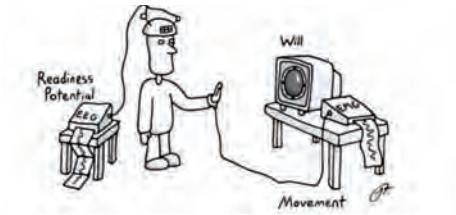

Figure 1 *Libet measured three variables in his free will experiment: readiness potential (RP), onset of conscious will to move wrist (W), and wrist movement (M) (Source: Blackmore, 2005).*

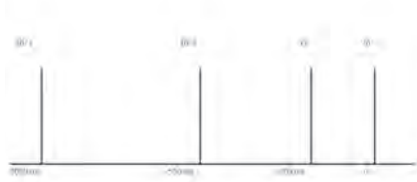

Figure 2 *Libet found that the conscious will (W) that preceded wrist movement (M) was itself preceded by two different kinds of readiness potentials (RP1 and RP2).*

150-200 milliseconds period before the movement occurs (Schneider, 2010). As a consequence, Libet stated that "the role of conscious will would be not to initiate a specific voluntary act but rather to select or control volitional outcome"(1985, p. 589). In this way, Libet maintained a causal role for consciousness in action in the form of 'free won't'.

Libet's results and particularly Libet's interpretation thereof stirred a wide-ranging debate in the journal *Behavioral and Brain Sciences*. Libet was widely criticized on philosophical and methodological grounds. The main philosophical issue concerned Libet's implicit dualist assumptions (Danto, 1985; Nelson, 1985; Wood, 1985). By concluding that "conscious control functions" (Libet, 1985, p. 538) can appear "without prior initiation by unconsciousness cerebral processes" (p. 538) Libet assumed something mental (the control function) being able to influence the actions of the body.

For many (materialist/ physicalist) scientists, this dualist account was (and still is) unsatisfactory, for it was unclear to them how something mental like the mind, could influence something physical like the body and brain. Dualist assumptions, for example, failed to account for proven physical regularities such as the law of conversation of energy (Fodor, 1981). Thus, Libet's proposal that there were mental control functions unconnected to cerebral processes seemed unwarranted to many scientists. Although this criticism is justified, it is important to emphasize that it is only related to Libet's *interpretation* of his findings concerning the postulation of a 'free won't' which is unconnected to cerebral processes; it does not concern Libet's neurophysiological findings. As a consequence, his basic finding that cerebral processes precede the conscious intention to move and the movement itself remains unaffected.

In addition to philosophical problems, many authors criticized Libet's publication on methodological grounds (Breitmeyer, 1985; Bridgeman, 1985; Danto, 1985; Ringo, 1985). The methodological criticism mainly revolved around the nature of the task and the method of timing W. Many argued that the action to move a wrist was so trivial that barely any inferences for general human volition could be drawn. Furthermore, it was argued that the subjects were only free to choose the timing of their action but not the action itself. Consequently, participants' conscious decisions in the experiments were reduced to their decisions about *when* to act. Most of the critics, therefore, concluded that Libet's results should not be generalized to more complex willed actions, let alone to issues relating to moral responsibility (Blackmore, 2005). I am supportive of this criticism. Indeed, it does not seem to be justifiable to generalize a conclusion derived from a wrist movement to more general human actions such as abstract future planning. However, evidence to be presented in this paper indicates that the time sequence found by Libet also applies to more complex actions.

The second methodological concern about Libet's findings was with the method of timing W; the conscious intention to act. As Libet already stated, W was only accessible introspectively to the subject himself. It was not (and still is not) possible to derive the state and timing of a person's conscious experience from objective third-person data. As a consequence, experimenters had to content themselves with a self-report measure that is based upon introspection. However, introspection has well-known drawbacks (Farthing, 1992). For example, the reports of subjects were likely to yield unreliable and conflicting data. This criticism could in fact hardly be ruled out without the invention of a supposed 'consciousness meter' – a device that yields objective data about conscious states. However, as I will demonstrate in the following section, the replication of Libet's basic findings in later experiments suggests that Libet's results were cor-

rect and the conscious intention to act indeed occurred *after* cerebral activity and *before* the actual movement.

4 Libet's basic findings were right - thus the common sense account is wrong

The criticisms above question Libet's results as well as the conclusion he drew from them. However, converging evidence from experiments that followed Libet's first publication supported and enhanced his findings. The temporal sequence of events which Libet initially found (brain activity – conscious will to move – movement) was replicated in other experiments (Haggard & Eimer, 1999; Soon, Brass, Heinze, & Haynes, 2008). Furthermore, Libet's basic finding could be extended to a broader set of (motor) actions in which subjects had to decide between two given options (Haggard & Eimer, 1999; Soon et al., 2008). Frith et al. (1999) took volition further; they found that the stimulation of pre-supplementary motor areas (preSMA) through electrodes in patients suffering from epilepsy led to both conscious intentions to move and movement itself - indicating a causal relationship between brain activity, conscious will, and movement. Moreover, evidence that this finding applies to healthy humans was yielded by follow-up studies using brain imaging techniques. In an fMRI study, predictive information of particular finger movement from the frontopolar cortex (either corresponding to moving the left or right finger) was found to be present already 7 seconds before subjects' reports of a conscious decision (Soon et al., 2008).

After putting together all the pieces of evidence presented above, one can see the bigger picture: Libet found that a cerebral activity preceded the conscious intention to move, which in turn, preceded the movement itself. In the 1980s, this finding was widely criticized. Yet, it has since been backed-up and enhanced by new forms of evidence. First of all, the time sequence found by Libet was replicated, making it unlikely that Libet found the time sequence just because of the low reliability of his measurements. Second, cerebral activity was found to not only *precede* the conscious intention to move but to very likely *cause* the conscious intention as well as the movement itself. So far this causal link has been shown only in humans with epilepsy. However, one could argue that this causal link could hold for all humans. This is suggested by the observation that we find predictive information about decision and movement in the frontopolar cortices of healthy humans. This insight into causality clearly goes beyond Libet's initial findings because his measurements did not allow him to infer any causal links. Third, Libet's results arguably allowed only the limited inference that the deci-

sion *when* we are going to move is made unconsciously by the brain. However, as is suggested by the new evidence, also the decision about *what* or *how* we are going to move (e.g. left or right limb) is made unconsciously by the brain. Due to technical constraints (for example the impracticality of walking around with an extremely heavy magnet on your head in everyday life), it is not yet possible to show that similar patterns hold for decisions about more complex patterns of action (e.g. about an abstract plan). We can only speculate about the generalizability of the results here, and it will be the task of future neuroscientific experiments to demonstrate that similar mechanisms are applicable to more general actions.

But let us assume this is the case, and that decisions about our actions are made unconsciously by our brains. What then, is the conclusion of all this? For me, there is a two-fold consistent interpretation of the evidence. First, we have to conclude that our conscious thoughts are not the cause of our actions. Instead, unconscious processes in our brains cause both our conscious decisions about our actions and the actions themselves. As a result, our perceptual experience of the causal link between our thoughts and our actions must be nothing but a causal illusion. The second conclusion is that we have to reject our traditional idea of volition as consciously deciding our actions. If the assumption that our conscious thoughts cause our actions is wrong, then we logically have to discard our common sense account of volition, for it is based upon exactly this false assumption. In place of the rejected account, we need a new account of volition. In what follows, I sketch out the beginnings of a new account of volition.

5 Towards a new account of volition

A new account of volition should make sense of the neuroscientific evidence gathered so far. It should try to come up with a new model that specifies how our brain activity, our actions, and the phenomenal aspect of volition causally relate to each other. In particular, it needs to specify how unconscious cerebral processes can cause both the conscious decisions about our actions and our actions themselves.

Such a new account of volition is likely to be developed within a physicalistic framework, but not restricted to it. By physicalistic framework I mean a system of thought that does not need to refer to mental entities but that can satisfactorily explain volition on the assumption that everything is physical. Apart from the fact that many (neuro-) scientists currently consider themselves to be physicalists and reject dualism, a physicalist account is more likely to be devel-

oped than dualistic one, for the moment, since it is more easily compatible with the assumption that the physical realm is causally closed. It does not require the additional assumption that mental states can have causal effects, and thus does not need to postulate psychophysical principles specifying the effect of phenomenal states on physical states. Should a physicalistic account be capable of explaining the various aspects of volition, it ought to be preferred over a dualistic account on the basis of scientific methodology: it requires fewer assumptions and is thus, in accordance with the principle of *Occam's razor* and should be preferred as the simpler and more economical account.

This, of course, is not to say that the solution of the mind-body problem is to be physicalistic. There are well-known drawbacks to the physicalistic view – most prominently its difficulties in explaining the subjectivity of conscious experience (the 'why it feels like something' to be in a conscious state if it is to be nothing but active brain matter). Furthermore, I do not mean to claim that it is impossible or implausible to create a new account of volition that is based on interactionist dualist assumptions. As Chalmers (2002) suggested, physical theory does not immediately rule out the possibility of an interactionist theory. On the contrary, on closer examination, contemporary physics is even encouraging consideration of the possibility that physical states will cause phenomenal states, and phenomenal states cause physical states. In the Copenhagen interpretation of quantum mechanics, the state of the world is described by a wave function, according to which physical entities are often in a superposed state. That implies that it cannot be said where exactly a particle is located before it is measured. The act of measurement causes the wave function to collapse, and the physical entities go from superposed states into non-superposed states. As a result, it becomes possible to say where a particle is exactly located. Most significantly, Chalmers implies that these collapses upon measurement leave room for an interactionist interpretation. There is no widely accepted definition of what 'measurement' is; yet, the one aspect most scientists agree on is that observation by a conscious observer represents a measurement. Moreover, an exclusively physical criterion for measurement does not seem to work, since exclusively physical systems themselves are governed by the wave function. Consequently, it is very possible that a measurement is precisely a conscious observation, and that this conscious observation causes the wave function to collapse (Chalmers, 2002). As a result, an interactionist dualist account is not as incompatible with contemporary physics as many people assume. Again, it needs to be emphasized that this interactionist version of volition would require the introduction of additional mental/conscious entities in the physical realm, and thus would require additional assumptions which makes it currently less attractive than a physicalist account.

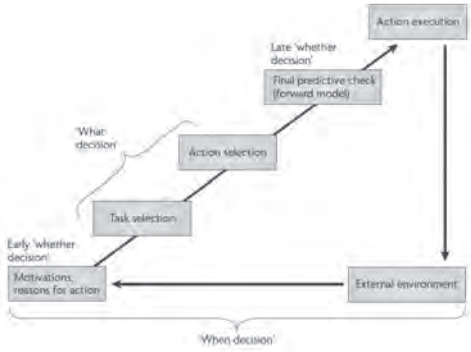

Figure 3 Haggard speculated that volition can be regarded as a hierarchical set of decision making processes in which each specifies the details of an action (Source: Haggard, 2008).

However, if an interactionist dualist account explains the observed phenomena of volition in a more satisfactory manner, I would not see any principle reasons to reject it.

Leaving these considerations apart, what would a new account of volition embedded in a physicalist framework look like? An attempt to develop a model of volition based on the evidence we have about the neural underpinnings of volition was made by Haggard (2008). In his model (Figure 3), volition is seen as a hierarchical set of decision making processes that each specifies details of an action. The brain generates information according to each set. An action starts with making the decision *whether* to perform an action ('whether decision'). Then, 'what decision' specifies which goal or task to perform (task selection), and then determines the means by which to perform it (action selection). Furthermore, there is what Haggard called a 'late whether decision', which can serve as final predictive check on whether the action is really to be performed or not. Finally, the action is either executed or not.

Let us have a closer look at the two most interesting sets of decisions in this model; i) the initiation of our actions and ii) the final check. What is the original cause of our conscious intention to act and the action itself? The common sense account postulated a linear causal chain, starting with the mental decision to act, which in itself is uncaused but which causes our voluntary actions. By contrast, Haggard speculated that the brain's circuits for voluntary action might

consist of loops; he thus does not need to assume a linear chain that runs back to an unspecified and uncaused cause. Essentially, Haggard was sketching out the beginnings of what I call a *physicalistic account* of volition. The dualistic view of causation that a mental state causes us to act is abandoned. Instead, brain circuits – something *physical* – are thought to cause our actions. The same holds true for the "late whether decision". Haggard leaves open the possibility of a veto process inhibiting the action in the last moment. Yet this kind of veto is different from Libet's idea of 'free won't' - I call this a *physicalistic 'free won't'*. Contrary to Libet, Haggard assumes that there are neural correlates of the veto process. In an fMRI studied together with Brass, he identified a specific area of the fronto-median cortex as the neural basis for inhibiting intentions (Brass & Haggard, 2007).

Haggard's model is a crucial contribution towards a physicalistic account of volition. If we do not *consciously* decide to initiate or veto our action, there are at least unconscious processes in our brains that do. At this point, scientists that commit themselves to a physicalist framework need to be careful not to imply some hidden dualist assumptions in their new accounts. One such assumption can be identified as I-brain-dualism. Examples for such an *I-brain-dualism* are easy to find. Consider for instance Haggard's and Eimer's conclusion (1999): "My *brain* appears to know I am going to move before I do" (p. 128). This sentence presupposes a clear distinction between the *brain* (that knows) and the 'I' (that does not know). But are our brains not part of us? If we say that not I but *my brain* initiated or vetoed my actions, then the question arises: How does the 'I' differ from the brain? What is left of our 'I' when we subtract the brain? It is very unlikely that some residual entity of 'I' is left when we subtract the brain, at least, as long as one subscribes to a physicalist account. Where should this 'I' derive from? Where should this 'I' be located? For physicalists, the brain and the 'I' should not be considered as two separate entities. This would imply another dualistic "ghost in the machine" (Ryle, 2000, p. 33), and it might be awkward for a scientist who deems his/her work physicalist to discover this hidden form of substance dualism. Therefore scientists should be careful to avoid these implicit forms of substance dualism when developing a new account of volition.

6 Let's Abandon our Causal Illusion

Neuroscientists have made a convincing case refuting the common sense view of volition. The traditional assumption that our conscious thoughts cause our voluntary actions cannot be sustained given the very strong evidence that contradicts this assumption. Our feeling that we are conscious agents is nothing but

a causal illusion. We seem to be causing our actions by our conscious thoughts, but we are not. Instead, as I have suggested, unconscious processes in our brains prepare and cause our decisions and actions. This insight reveals the need for a new account of how volition works. I have demonstrated that this new account is more likely to be developed in a physicalist framework, although there are no fundamental reasons for excluding an interactionist dualist account of volition from consideration. Scientists that deem themselves physicalists ought to be careful with any forms of implicit dualism. Saying that 'our brains decide over us' implies just another form of dualism.

How do we act? How do we decide about our actions? Important findings have been made to answer these questions. However, we are still at the beginning. Neuroscientists should try to develop further the few existing theories and test them with the newly delivered evidence of brain imaging studies. Philosophers should keep a close watch on the work of scientists and the interpretations of their results. This approach may enable us to one day reveal the workings of our volitions in a new way, and thus abandon our causal illusion.

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'MORALIZATION' OF TECHNOLOGIES

Military Drones: A Case Study

Christopher Newman

Abstract In this paper, the challenges of 'moralizing' the new technology of military drones are analyzed. First, the theoretical concepts related to the human and technological dimensions of morality are explored and technological mediation of reality is discussed. Thereafter, ramifications for the design of technology are highlighted with use of the notion of 'moralizing' technologies. These theoretical concepts are then applied to the case of military drones to show how greater participation at the design stage and better understanding of the mediating effects of drone technology can help address some of the moral challenges that drones entail.

1 Introduction

Commenting on the operation of unmanned aerial vehicles (UAVs), more commonly known as military drones[1], an analyst is cited as saying «It's like a video game. It can get a little bloodthirsty. But it's fucking cool» (Sparrow, 2009, p. 184). This quote illustrates the perils that the new and evolving technology of military drones embodies and the ethical ramifications inherent in the use of such a technology. Throughout history, man has had to grapple with the dangers brought about by technological breakthroughs. Yet, some of the twenty-first century technologies including robots (military or otherwise) pose a qualitatively different threat than technologies that have come before (Joy, 2006; Singer, 2009a). Joy points out that every design and use of a new technology brings with it unintended consequences that may be disastrous (Joy, 2006). Especially in the field of military robotics, then, with its inherently lethal potential, there are serious implications for law, ethics and morality. More often than not, morality and ethics are struggling to keep up with new and emerging technologies and this can generate ethical lacunae and uncertainty (Singer, 2010). The present paper aims to answer the question of how the challenges of 'moralizing' military drones can be addressed.

This paper is divided into two main parts. In the first part, the relevant theoretical concepts will be introduced and elucidated and in the second part, these concepts will be applied to the case of military drones. Firstly, the nexus between the human and technological domains and morality will be presented. Secondly, the concept of technological mediation will be introduced and its meaning for moral decision-making will be elaborated on. Thereafter, the resulting ramifications for the design of technology will be highlighted and the notion of 'moralizing' technology will be explicated. Subsequently, the above theoretical concepts will be utilized to analyze the various ethical challenges with regard to military drones. In doing so, it will be investigated how these challenges can be addressed by 'moralizing' drone technology.

[1] This paper will deal primarily with tele-operated, lethal unmanned aerial vehicles (UAVs) like the Predator or Reaper drones employed by the US military today. These are flying military robots that are generally operated by military pilots from thousands of miles away and are equipped with various sensors and guided weapons. They have the capability to identify, track and follow targets and to launch missiles or drop bombs.

2 Ethics, Morality and Technology

To begin with, the commonly held notion that morality belongs solely to the human domain needs to be discarded. Morality is also an affair of *things* and therefore morality and ethics have a material dimension (Verbeek, 2011). This might seem like an outlandish claim and therefore some deeper investigation may be called for. The most obvious place to start analyzing the above premise would seem to be the field of engineering ethics, since the design process is commonly regarded as the place where individuals (engineers) take responsibility for the moral aspects of the technologies they create. However, engineering ethics currently takes mainly an externalist approach to technology. This means that there is a basic assumption of a radical separation between the technological and the societal spheres and ethical reflection is limited to the engineer's individual responsibility to perform conscientious risk assessment and to 'blow the whistle' in the design stage if he/she sees immoral design practices or evident immoral consequences of certain innovations (Swierstra & Jelsma, 2005). Technologies are viewed here in a purely instrumental manner; they are intended to perform a function and if they do so in an unethical way then the engineer has the responsibility to make sure that the innovations in the technological sphere do not have (ethically) adverse effects in the human realm (Verbeek, 2009). In the instrumentalist view, technology is seen as a neutral instrument that has no moral significance in and of itself. It is how humans use the technological artifact that shapes the ethical aspects. The fundamental limitation of this approach is that it disregards the inextricable intertwinement between the technological and societal spheres that lies at the heart of Science, Technology and Society Studies (STS).

In order to fully understand this intertwinement and the moral dimension of technological artifacts it is useful to utilize the concept of technological mediation. Technologies are more than neutral 'intermediaries'; they actively co-shape how people perceive reality and actively co-shape people's actions (Ihde, 1990; Latour, 1992). The use of the term 'co-shape' is crucial here to avoid reverting to classical technological determinism in which technologies *determine* human behavior and where little room is left for human agency (and, by extension, human responsibility) (MacKenzie & Wajcman, 1999). Instead, when technologies are used, they help constitute people's perception of reality and inform the human decisions that are taken within that constituted reality. For instance, technologies like obstetric ultrasound play a crucial role in defining human illness and health, as ultrasound enables the detection of serious congenital defects, thereby 'translating' the fetus into a possible patient with preventable suffering and informing a new set of ethical choices for the parents (Verbeek, 2011). As a result of the mediating role of ultra-

sound technology, parents are faced with the responsibility of making difficult moral decisions about the lives of unborn children. At the same time, however, technologies do not *determine* the decisions humans make but merely inform them by constituting humans' perceived reality and their actions. Hence, "moral decision-making is a joint effort of human beings and technological artifacts" (Verbeek, 2011, p. 206).

So far, it has been established that technology mediates how humans perceive reality and that it also mediates human actions by playing a role in discouraging certain actions and inviting others. Given that ethics is about the question of how to act, it follows that technological mediation reveals an inherently moral dimension in technology (Verbeek, 2009). In fact, technological artifacts are bearers of morality since they consistently take various moral decisions for humans. For example, a speed bump invites people to choose to either slow down when driving or damage their car's shock absorbers (Latour, 1992). Similarly, alcohol locks for cars make a moral decision for people in hindering a person from driving while drunk. While technologies cannot be moral agents in themselves (since that requires intentionality and a certain autonomy), it is evident that technologies embody some kind of morality in the context of human-technology relations (Verbeek, 2009). Moreover, since human autonomy of action is mediated by technology, human intentionality is co-shaped by technology. As a result of this active co-shaping, it can be concluded that moral responsibility needs to be borne not solely by humans or solely technologies but also by the complex blend of humans and technological artifacts (Verbeek, 2009).

This conclusion about joint moral responsibility resulting from the pervasiveness and inevitability of technological mediation in our technological culture has major ramifications for engineering ethics and the design of technology. As the notion of technological mediation illustrates, the design of technologies needs to comprise more than only technical risk calculations. When technologies are used in societies, they mediate our human experiences and co-shape our moral decision making. Consequently, the design of technological artifacts is inherently a moral activity and it is necessary to take a holistic approach to considerations of ethics and responsibility. Even without explicit ethical reflection, engineers designing artifacts are "doing ethics by other means" (Verbeek, 2011, p. 207) and it is desirable, therefore, to aim for an explicit 'moralization of technology' (Achterhuis, 1995). This means proactively embedding desirable moral values in technologies to shape our actions for the better. Accordingly, engineers should focus not only on the obvious functions of the technological artifacts they create but also on their mediating roles and the ethical implications that result (Verbeek, 2011).

The 'moralization of technology' is a complex and difficult task that requires the anticipation of mediations. In addition to the fact that the future social

impacts of technologies are notoriously difficult to predict, the designers and engineers are not the only ones contributing to the materialization of mediations. The future mediating roles of technologies are also shaped by the interpretation of users and the emergent characteristics of the technologies themselves (Verbeek, 2009). This means that designers of artifacts cannot simply 'inscribe' a certain morality into technologies but that the capacity for 'moralizing' a specific technology will depend on the dynamics of the interplay between the engineers, the users and the technologies themselves. Whilst making predictions about a technology's future mediating role is undoubtedly a very complex task, it could be assisted by a so-called 'mediation analysis', like the one proposed by Swierstra and Waelbers (2010). These scholars designed a matrix for the technological mediation of morality which provides engineers with a framework for reflecting more deeply on the prospective social role of the artifacts they design.

While such a 'mediation analysis' may aid engineers in their 'moralization of technology' to a certain extent, it does not adequately address the criticism that the design process associated with technology is undemocratic. However, an alternative method entitled 'Constructive Technology Assessment' (CTA; cf. Rip, Misa & Schot, 1995) tries to democratize the design process by engaging all relevant stakeholders during the development process. The premise underlying CTA is that technologies are not 'fixed' and their development is neither linear nor spontaneous but rather the result of complex interactions of the different actors involved. As such, all relevant actors have a stake in the moral operation of the socio-technical ensemble and therefore the democratization of the technology design process contributes to the 'moralization of technologies' in a broader sense (Verbeek, 2009). This is precisely what STS scholars intend to achieve by opening the black box of technology and analyzing the complex dynamics of its design. In the following, some important moral challenges with regard to military drones will be analyzed utilizing the theoretical concepts presented thus far and possible ways to address these challenges will be discussed.

3 The Case of Military Drones

The US military alone already employs several thousand unarmed aerial vehicles all over the world and also the number of lethal UAVs has seen a spectacular 1,200% increase over the past six years ("Flight of the drones," 2011). With over forty countries now developing unmanned aerial systems, it is indispensable to seriously discuss the moral and ethical issues linked to this technology (Singer, 2009a). Using drones may give rise to a number of unanticipated problems and ethical challeng-

es.[2] As has been established above, technologies mediate how humans perceive reality and also co-shape people's decision-making. In most cases, for example when looking through a pair of binoculars, we do not think twice about trusting the mediating effect of technology because we trust the physical laws of optics and there are usually no ethical dilemmas that result from this situation (Sullins, 2009). By contrast, in the case of military drones, it is evident that the military pilot who is controlling the drone usually from thousands of miles away perceives reality in, say, Pakistan's tribal areas, through "machine vision" (Salvini, 2007, p. 156). This means that the infrared camera and other high-tech video sensors on the robotic drone filters and purges (visual) information, thereby creating an mediated image which is transferred to the remote pilot's screen. As a result of this mediation of reality, the tele-operators of drones see the world differently than they would without this "telepistemological distancing" (Sullins, 2009, p. 268). This refers to the effect that the battlefield information, mediated through the technologies on remotely operated drones, has on the tele-operator's epistemological perception of the remote reality and hence begs the question of how this distancing impacts the pilot's ability to make ethical decisions.

As we have seen from the theoretical discussion earlier, the very decision to fire a lethal weapon is co-shaped by technological artifacts (in this case the drone's sensors and the broader technical system of communication between the pilot and the UAV). Therefore, it is insufficient to assume that since a moral agent is controlling the drone, the actions of the socio-technical ensemble must be moral. The reason for this is that the inherent design of military drones limits the ability of humans to be in full intelligent control of them (Sullins, 2009). On the one hand, the telepistemological and, by extension, physical distancing in the form of a real-time image on a remote screen serves as a protective shield which minimizes (and effectively moves towards zero) the threat to the human soldier and this aspect is arguably ethical and morally good.[3] On the other hand, however, this same distancing effect can lead to the dangers of abstraction and moral disengagement (Salvini, 2007). This means that this type of warfare could con-

[2] Due to space limitations, this paper must limit its scope to the ethical challenges of drones most relevant for the analysis of technological mediation and technological 'moralization'. One challenge that has been left out is how to deal with the psychological stress of remote operators, also known as 'cubicle warriors'. For a detailed discussion on this subject see Royakkers and Van Est (2010).

[3] Strawser (2010) even goes so far as to argue for an ethical duty to employ UAVs on the grounds that there is an obligation to prevent unnecessary potential lethal risk to human life (the military pilot) where this is possible.

tribute to dehumanization and disregard for the moral agency of enemy combatants in drone pilots' perceptions (Sullins, 2009). These moral buffers may have an adverse effect on people's adherence to the rules of engagement and the laws of armed conflict and could co-shape people's actions in such a way as to make war crimes more likely (Sparrow, 2008).

Recalling the notion that moral responsibility must be borne jointly by humans and the technological artifact, several points are in order concerning the design of UAVs. First, since the user interface that pilots use is the primary way in which operators perceive the remote reality on the battlefield, it is expected that that the design of this interface co-shapes the decisions of life and death that remote pilots make. Therefore, it can be argued that engineers should have a responsibility to try as best they can to "build ethics into the user interface" (Sparrow, 2008, p. 181). Obviously, this is a tremendously difficult task and the details of how exactly to do this are beyond the scope of this paper but in essence the designers should work to design an interface that facilitates killing where it is justified and discourages it where it is not (Cummings, 2006); in other words, they should try to "desig[n] out war crimes" (Sparrow, 2008, p. 179). Engineers could do this by striving to build 'good' sensors and interfaces that present the operator with the necessary moral information relevant to the combat situation. Furthermore, drone technology can be 'moralized' by counteracting the creation of 'moral buffers' between the pilot and his/her actions. This entails ensuring that the extent to which operators rely on the increasing amount of automation in military drones does not exceed a threshold where the human feels less responsible for an action since it was fully or partly the machine that made the decision (Sparrow, 2008). Here, the co-shaping role of technology is clearly evident and the moral challenges inherent in the design of military drones cannot be underestimated. While by no means disregarding the moral agency of drone operators, the concept of technological mediation highlights the ethical importance of the 'moralization' of drone technology through engineers at the design stage. To this end, engineers might do well to perform a 'mediation analysis' in order to better anticipate the mediating effects that their designs have on human perception and action.

Cognizant of the poor ethical record of human soldiers with the technology currently available, some scholars have started talking about the implications of taking the design of drones one step further, towards semi- or fully-autonomous uninhabited aerial vehicles where humans may remain 'in the loop' but more in a monitoring than a controlling role (Arkin, 2009; Sullins, 2010). The roboticist and roboethicist Ronald Arkin (2009) has developed a prototype of a so-called 'ethical governor' which should enable robots to do the right thing. His basic

premise is that, with time, it will be feasible to program military drones so that they behave more ethically on the battlefield than humans (Arkin, 2009). While Arkin admits that the algorithms for his ethical governor are not yet ready for use in current combat operations, he is convinced that there is no "fundamental scientific limitation to achieving the goal" (Orca, 2009). In his own way, then, Arkin strives to 'moralize' drone technology by embedding in it an ethical algorithm and thereby turning the autonomous robotic systems into artificial moral agents of their own. This is a manifest illustration of how the designers of a technology are "doing ethics by other means" (Verbeek, 2011, p. 207). Moreover, some scholars in the field view the development and deployment of fully autonomous military drones as an inevitable outcome of the combination of the vast amount of research and political will directed towards this technology (Sullins, 2010; Wallach & Allen, 2009). However, this is highly questionable when viewed through an STS framework, which maintains that technological development does not follow some predetermined inner logic but rather that technological development is the outcome of complex negotiations between relevant actors. By the same token, a senior US military official has commented that the limiting factor in the development of drone technology will more likely be policy than the technology itself ("Flight of the drones," 2011).

When it comes to policy, a further ethical challenge of drone technology is that it may make warfare more likely to occur. While the above-mentioned distancing effect has the morally good result of removing soldiers from harm's way, the tele-operation of military drones also entails the unfortunate consequence of potentially increasing the likelihood of war. The rationale behind this is that it is politically much more palatable to deploy robotic drones rather than human soldiers and that using drones appears to be an attractive way to fight 'clean' and surgical wars. In other words, as the political and human cost of fighting wars diminishes, the threshold of decision-makers to start an armed conflict is considerably lowered (Singer, 2009a). When the likelihood of war increases as a result of drone technology, this is obviously not an ethical outcome and therefore more scrutiny of military drone activities is needed (Sullins, 2009). Moreover, keeping in mind that technological artifacts are not merely a neutral means of achieving goals but co-shapers of our actions, it becomes evident that drones help constitute the conditions of possibility that re-shape our practices and influence our ends (Coeckelbergh, 2011). What is more, flexibility of interpretation still exists with regard to what doctrines the American military will adopt when organizing its drones and therefore a serious public discussion of how this technology might influence military ends is called for (Geraci, 2011; Singer, 2009b).

Finally, a public discussion about drone technology should not limit itself

to the influence on military doctrine but should also address the challenge of democratizing the development of military robotics including lethal drones with the end of contributing to the 'moralization' of the technology. There have already been several initiatives taken in this direction. For instance, Moshkina and Arkin (2007) conducted a survey aimed at better understanding the expectations that various demographic groups (the public, researchers, policy-makers and military personnel) hold regarding battlefield robotics. If the results of this study (and similar ones) are seriously taken into account by the engineers and other groups directly involved in the design process of these technologies, this may bring us a step closer to 'moralizing' military drone technology by democratizing the design process of military robotics. It must be pointed out here that it is questionable how much democratic influence is desirable when it comes to designing military technology due to the sensitive nature of this field. Nevertheless, there have been other serious efforts to congregate experts of various relevant fields (*inter alia* engineers, international lawyers and military ethicists) in order to collaborate more effectively in addressing the ethical and legal implications of new military robotics (Lucas, 2010). One of the most prominent forms of democratic deliberation on this subject finds its embodiment in the form of the 'Consortium on Emerging Technologies, Military Operations, and National Security' (CETMONS), which was initiated in 2008 (Lucas, 2010, p. 291). By engaging relevant stakeholders in the development process of drone technology, this consortium appears to be in line with the above-mentioned 'Constructive Technology Assessment' approach developed by Rip, Misa and Schot (1995). Hopefully, in this way, STS scholars' goal of opening the black box of technological development can contribute to society being better able to address the challenges surrounding the 'moralization' of military drones.

4 Conclusion

This paper analyzed how the challenges of 'moralizing' military drones can be addressed. Firstly, it was demonstrated that ethics and morality have both a human and a technological dimension and that the two spheres are in fact closely intertwined. Secondly, the concept of technological mediation was introduced and it was examined how technologies co-shape both our perceptions of reality and our moral agency. Thereafter, it was argued that the inevitable technological mediation in our technological culture means that the designingn of technology is an inherently moral process and that engineers should aim to 'moralize' technologies so as to shape our actions for the better. Subsequently, these

theoretical concepts were applied to the case of military drones. It was shown how understanding the mediating effects of this technology and ensuring wider participation in the development process of drone technology can help us 'moralize' their design. By focusing on the ethical importance of a good user interface and utilizing public deliberative fora we may be able to address some of the moral challenges that drones entail.

Since technological artifacts stabilize human relationships by co-shaping our perceptions and actions in our constructed environment, it is of utmost importance that we design military robots with human priorities foremost in mind (Geraci, 2011; Latour, 2005). Our technologies offer both peril and promise, enabling as well as constraining our moral actions and therefore we must heed the consequences that technological mediation has for our ability to act ethically. Realizing the fundamental importance of gaining a better understanding of how to address the ethical challenges of military drones, there has been an "ethics surge" (Lucas, 2010, p. 292) in the field. However, recalling the quote at the beginning of this paper and presuming that we do not want drone pilots making life and death decisions with the feeling that they are merely playing a video game, it appears that much work remains to be done in 'moralizing' drone technology design in order to promote more ethical behavior on the remote battlefield.

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HORRIFYING STEREOTYPES

The Construction of New Gender Roles in "Jennifer's Body"

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Abstract The horror genre is well-known for making use of stereotypes in terms of gender and sexuality. This paper investigates how the 2009 motion picture Jennifer's Body distances itself from such stereotypes by breaking with horror conventions. It examines these deviations as well as their implications. After doing so, it is discussed in how far the ideas of feminist film theorists such as Carol Clover and Linda Williams as well as their concepts of, for example, the "Final Girl" are outdated, and why Judith Butler's theory of performativity constitutes an important part of the movie.

1 Introduction

Probably no other movie genre is as well known for depicting highly stereotypical and excessively stylized gender roles as horror. Terms such as "Final Girl", "phal-

lic oppressor"[1], and the like are evidence of the fixed gender identities used in horror movies. When watching such a movie, the audience has clear expectations of what to expect. From the very beginning of the film on, the spectator knows who will live and who will die. Thus, one could argue that, in terms of plot structure and character identities, horror movies do not have many surprises to offer anymore. At the same time, however, the horror genre remains one of the most discussed movie genres. Numerous people have turned their attention to the films, from film critics to feminists and psychologists. Especially since the 1970s, feminist film theory has become central in the analysis of horror movies, often making use of a psychoanalytical approach (Jancovich, 2002). However, changes, if ever so subtle, have come upon the horror genre as well as its audience, and thus the question arises whether such film theories are not in dire need of an adjustment to today's times.

The 2009 motion picture *Jennifer's Body* depicts a high school cheerleader possessed by a man-eating demon, who is eventually killed by her best friend. However, the movie tells not only the horrifying and simultaneously comical story of a demon, but also that of two teenage girls and their intimate friendship. In a very fitting manner, the opening statement of the film describes all three main genres – horror, comedy, and teen film – that it works with: "Hell is a teenage girl". Even though horror might not be the most dominant category of the movie, it is by far the most obvious. Yet more than once are the conventions of classical horror are disregarded, and these breaks always occur when it comes to the stereotypes of sexuality in Slasher films.

The writer of the movie, Diablo Cody, and its director, Karyn Kusama, are both outspoken feminists. To them, *Jennifer's Body* was a "Trojan horse" (Orange, 2009, para. 8), a medium to deliver a new view on sexuality in horror movies. This essay will investigate this 'Trojan horse' by approaching two main questions: (1) how does the movie *Jennifer's Body* break with the conventions of classical horror and related film theories in terms of sexuality? (2) Is the movie truly successful at breaking these conventions, or does it merely express the same stereotypes in a new light?

In answering these questions, the essay will touch upon the feminist theories of Judith Butler, Laura Mulvey, Carol Clover, and others. It will also use genre

[1] These specific terms have been used to describe two stereotypical characters in classical horror movies: The Final Girl is the female character that eventually kills the often male evildoer (Jancovich, 2002). This evil character is monstrous simply because he deviates from the norm of masculinity; either he lacks a phallus, or he is a phallic oppressor (Williams, 2002 [1984]; Clover, 2002 [1987]).

theory in order to distinguish horror from gothic fiction. This distinction is necessary, since it demonstrates the ways in which the modern movie *Jennifer's Body* distances itself from classical horror, rendering previous feminist film theories at least partly outdated. The main focus will be on the so-called "Final Girl" and the male construct of femininity.

2 The Story of Jennifer's Body

The movie *Jennifer's Body* (2009), written by Diablo Cody and directed by Karyn Kusama, is commonly regarded as a black comedy horror film. The story revolves around the high school cheerleader Jennifer Check, portrayed by Megan Fox, and her best friend Anita Lesnicki (also called "Needy"), played by Amanda Seyfried. It is told from Needy's point of view after all the events have taken place.

Although the two main characters have little in common, they have been best friends since early childhood. One night, they attend the concert of an indie rock band at the local bar. The bar burns down in a fire, and Jennifer, against the advice of her best friend, drives away with the members of the band. It is later revealed that Jennifer was sacrificed by the band, in order to gain them fame. However, the ritual demanded a virginal sacrifice, a demand that the girl did not meet. Thus, even though the band was granted the fame, Jennifer returned as a succubus, a man-eating demon.

Shortly after the fire, Jennifer starts feeding off the boys of the small town Devil's Kettle. Once a month she seduces, kills and eats one adolescent in order to maintain her strength and beauty. Needy, who shares a deep and almost telepathic bond with Jennifer, grows suspicious and starts investigating. She discovers that Jennifer's body is actually possessed by a demonic entity. When at the school dance Jennifer kills Needy's boyfriend Chip, Needy decides to destroy the demon. Armed with a box cutter, she attacks Jennifer in her own home and, after being bitten by the succubus, eventually manages to drive the knife through the creature's heart.

After the events, Needy is brought to an asylum. However, some of the demonic powers were transferred to her when Jennifer bit her. Thus she manages to escape and goes after the indie rock band "Low Shoulder" who brutally killed her best friend.

3 Breaking the Conventions

When analysing *Jennifer's Body*, one finds that it may not be a classical horror story, but definitely shows signs of classic gothic fiction. In his book Gothic, the gothic theorist Fred Botting (1996) explains that gothic style originated in romanticism[2]. It is a style that often builds up its tension through terror, eventually culminating in horror: "While terror and horror are often used synonymously, distinctions can be made between them […]. If terror leads to imaginative expansion of one's sense of self, horror describes the movement of contraction and recoil" (Botting, 1996, p. 6)[3]. The main difference between the gothic and horror genres is that the former builds more on a morbid atmosphere, whereas the latter rather relies on shocking and often gory imagery.

In the case of *Jennifer's Body* (2009), it is noteworthy how little blood and outright violence is shown in comparison to other modern horror movies. Seldom is the spectator confronted with Jennifer's demonic face; instead, tension is constantly built up, creating a feeling of terror instead of horror. Furthermore, almost all the elements and symbolisms of a gothic story, as described by Botting (1996) can be found in the motion picture. Take, for example, the setting: besides the fact that the town where the events happen is called *Devil's Kettle*, all of the killings committed by Jennifer take place in a gothic setting, namely a forest, an old house, and finally the abandoned swimming hall[4]. Elements such as mirrors are omnipresent, more or less obviously, depending on the scene. One may think of the scene where Jennifer Check sits in front of a mirror and tries to cover the tiredness and emptiness of her face with make-up. It is a perfect representation of the duplicity of the character: that which originally was, namely an ordinary girl, and that which was created, already long before Jennifer's body was possessed by a demon. She can barely hide the truth that her mirror image displays, namely that Jennifer Check is a weak and average girl. Such a mirror motif is typical in

[2] The 1764 novel *Castle of Otranto* by Horace Walpole is regarded as the first true gothic story, and was even subtitled as such.

[3] Fred Botting bases these ideas on Edmund Burke's concept of the sublime as proposed in *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* (1756). Burke theorizes on the links between beauty and the sublime, as well as pleasure, terror, and horror.

[4] Setting is a very central aspect to gothic fiction. It embodies the dichotomy between the sublime and beautiful (Burke, 2001 [1756]; Botting, 1996), and displays decay and wilderness. All of the above mentioned places in *Jennifer's Body* (2009) are gothic settings, drawing on feelings of isolation, awe, and terror.

gothic fiction. It is the inescapable portrayal of repressed fears and desires, of hidden decay and ugliness (Botting, 1996).

Finally, what makes the story a perfect gothic fiction is the absurdness and sheer inappropriateness of the dialogues. This underlines the paradoxical nature of the movie; it is a gruesome movie, yet it makes its audience laugh about death and gore. All of these factors, combined with the overall morbidity of the movie, make it a textbook gothic fiction. Yet this makes the film an oddity of its time; with gothic being a genre seldom used anymore (Botting, 1996)[5]. The movie harks back on the age-old convention of breaking the conventions, of depicting that which should not be depicted. This, of course, has not been done unintentionally. *Jennifer's Body* directly aims at breaking the conventions, and to do this, it creates a gothic reality within the horror fiction. So how, then, are the expectations of the horror audience being torn apart?

Three main instances can be identified that go against Western horror conventions[6] as described in *Horror, the Film Reader* (2002), and all are related to the sexuality and gender roles of the characters. Firstly, there is no male lead character. Not even the monster is masculine, but on the contrary, a very feminine seductress. All men, even Needy's boyfriend, are one-dimensional, static figures. Their only purpose, it seems, is to be the object of Jennifer's hunger.

Secondly, the female characters are not as objectified as one might expect. For example, during the satanic ritual, Jennifer is not raped by the indie rock band. The allusions to such an act, however, are definitely there. The girl is tied up by the band members, looked down on, laughed at, and eventually brutally stabbed several times. The *mise-en-scéne* at this point prepares the spectator for an objectification of the female body that actually never occurs[7]. Furthermore, the female actresses Fox and Seyfried are seldom shown in extreme close-ups. Such a viewpoint would dissolve the wholeness of the female body into, for example, a leg or a breast. It would reduce the woman to an object of desire for male characters and spectators (Mulvey, 1999).

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[5] Botting (1996) even claimed that with Coppola's *Dracula* from 1992 the gothic genre would had ended, divested of its original excesses and transgressions.

[6] At this point it is important to note that this paper focuses only on Western films as well as Western film- and feminist theories. Asian horror movies, for example, follow other conventions and would thus be set up quite differently.

[7] This scene is a direct allusion to Rape-Revenge movies such *as I Spit on Your Grave* (1978) and *Kill Bill* (2003/2004). In movies as such, a woman is raped and left for dead. However, she survives the attack and goes after the rapists (Jancovich, 2002).

An exception to this is the introduction of Seyfried's character Needy at the beginning of the movie. Here the camera view depicts her torso in close-up while she changes her clothes. This, however, is an almost necessary view to show the deep scars on her shoulders. Another exception is the depiction of the intimate relationship between the two women. At the bar they are shown holding hands, with the camera view switching from an extreme close-up of the hands to their faces, and back again; and, more obviously, the very detailed scene of their lesbian kiss makes use of such a filming technique.

However, even though Megan Fox undresses several times in the movie, the depicted images never go further than a naked back or stomach. Similarly to the already described ritual scene, the filming techniques often hint at something that is never shown, pulling back at the very last second. This plays with the film theory established by Laura Mulvey (1999). According to her theory, female characters in movies are merely an object for the gaze of male characters and spectators:

> *Going far beyond highlighting a woman's to-be-looked-at-ness, cinema builds the way she is to be looked at into the spectacle itself. […] [C]inematic codes create a gaze, a world, and an object, thereby producing an illusion cut to the measure of desire (Mulvey, 1999, p. 843).*

Film thus becomes a medium for the voyeuristic pleasure of the male spectator. In the case of *Jennifer's Body*, however, the audience is seldom granted this pleasure. In fact, the men in this movie who actually dare to look at the female are all killed and eaten. The gaze of the woman, however, is the gaze that recognizes power in the monster (Williams, 2002). Needy was the only character who saw and understood the powerful demon in Jennifer's body, eventually acquiring at least some of its powers through recognition and confrontation.

Thirdly and most importantly, Needy is not the classic "Final Girl". According to Carol Clover (2002), the Final Girl is the central female character of the film:

> *The Final Girl is introduced at the beginning and is the only character to be developed in any psychological detail. We understand immediately from the attention paid it that hers is the main story line. She is intelligent, watchful, level-headed (Clover, 2002, p. 79).*

The Final Girl is the 'good' girl, the one character who lives a morally admirable life and clings to her virginity. In the end, it is her virtues that allow the female to overcome the evil monster or killer of the movie. Consequentially, the Final

Girl constitutes one of the two most important characters of every horror movie. But she is less of an actual character than an archetype, a symbol for the good that will prevail, whereas all others perish. The character of Needy seems to fit this ideal. She is intelligent, brave, and, of course, the survivor at the end of the movie. Already from the beginning it is obvious that it is indeed her story that is being told, since the movie is being told as a narrative from Needy's perspective. Yet there is one very important exception to the archetype: she engages in sex. The paradigm of the virginal maiden is disregarded by a character that instead is sexually aware of herself and her body.

4 (De)Constructing Femininity?

The previous analysis explained that the motion picture *Jennifer's Body* (2009) breaks with the conventions of horror insofar as the terms of sexuality are concerned. According to writer and feminist Diablo Cody, the movie was intended to play with the stereotypes presented in mainstream horror, and to represent new, multi-dimensional characters.

Yet it seems highly questionable whether this has actually been achieved. One could argue that *Jennifer's Body* displays the same stereotypes, only in a new light. Needy might not be the classical Final Girl, and the movie might have managed without male lead characters. However, it is undeniable that through her sexuality the female is represented as the source of evil. Jennifer is a seductress who kills and eats boys. In fact, this story replicates the age-old tale of the succubus, a devilish demon in the image of a woman. Even though this monster is killed at the end of the movie, the surviving girl is empowered by that same demonic energy.

Furthermore, the movie does not completely abstain from the objectification of women. The kissing scene might be regarded as an investigation of the intimate friendship between two apparently heterosexual girls. However, the scene is several minutes long and extensively depicts the lesbian interaction in extreme close-ups, freezing the storyline for the time being. It seems as if this scene does more than just explore a relationship, but that it rather tries to meet the expectations of a masculine audience, as explained by Mulvey (1999). Again, women have become objects of the male gaze.

Arguing as such, however, disregards one very central point: As recent box office receipts prove, the majority of today's horror audience is female. Diablo Cody and Karyn Kusama have stated that the movie was directed at an audience constituted of both sexes (Orange, 2009). What is more, a lesbian kiss is

by no means a sensation anymore. Thus, even though the argument of the objectification of female characters cannot be completely disregarded, the male gaze described by Mulvey (1999) is certainly not the main reason for this, as shall be explained later.

What is more, it is not demonic energy itself that empowers Needy's character at the end of the movie. Rather the demonic possession is only partly a symbol for religious anxiety; more importantly it is the codification of the woman as an actual possession. Jennifer Check, the adored cheerleader, has always lived to meet male expectations. To quote Judith Butler, theorist on gender performativity, on the topic:

> *[…] the* appearance of substance *is precisely that, a constructed identity, a performative accomplishment which the mundane social audience, including the actors themselves, come to believe and to perform in the mode of belief (Butler, 1988, p. 520, original emphasis).*

Through repetition of certain expectations within the individual as well as the social context in which they live, gender becomes a fixed term. According to this constructivist view, the conventions of gender roles are created and reinforced through often subconscious acts. In *Jennifer's Body*, Jennifer is the perfect example of these performed gender roles. With her being possessed by a demon after a brutal ritual performed by several men, she literally is a male creation. Yet the character has been corrupted by male expectations long before the ritual[8]. For example, would Jennifer have entered the van of the indie rock band, had she not been trying to live up to the expectations of the modern, sexually aware woman? Furthermore, even though she appears to be a threat to male supremacy, she still relies on this questionable supremacy. She does not merely kill her victims, but rather has to seduce them beforehand. In fact, several instances prove how insecure Jennifer truly is. She is constantly dependent on Needy, even though the latter appears to be the shallow sidekick. Still, Jennifer needs her best friend to come with her to the concert, and her attention is always drawn towards those boys that Needy finds interesting. The male construct, it appears, is unviable on its own.

[8] There is a very interesting scene in *Jennifer's Body*, which sadly was deleted from the movie. It displays the funeral scene of Colin. Here, two of his Goth friends are shown, who explicitly say: "[…] Jennifer Check is gross. She thinks she's so special, because she's popular and is what society considers attractive. But she's really just a generic Giga-bitch […]"

Needy constitutes the counterpart to Jennifer. She is the Final Girl that breaks with the conventions of horror. It is very important for the movie that she does so: if Jennifer is said to be the symbolized male construct, then Needy is the opposite. She is the character who cannot be squeezed into a stereotypical archetype; the character who does not follow the expectations. In other words: Needy is the 'real' woman. She might appear to be nothing more than Jennifer's sidekick at the beginning of the film, as already her name implies. Yet, unlike her best friend, she never trapped herself in the artificial femaleness of perfect hair and make-up. Instead, she is the one who actively withstands this ideal and eventually destroys it. She kills Jennifer, but this is not enough for Needy. After she breaks free from the asylum, she goes after the men who created the succubus and murders them. Thus, Needy has destroyed every part of the male construction of femaleness: the unrealistic ideal, but also those who continue to construct it.

One might argue that Jennifer does something similar by killing those men she seduces with her femaleness. However, she does this because she cannot overcome the demon inside of her. She is never able to break free from the male ideal. She seduces and kills boys from her school in order to literally feed on the expectations and maintain her own representation of the ideal. For this reason, Jennifer is untouched by the spontaneous fame of the band who sacrificed her. She does not kill to overcome the unrealistic ideal – she kills to sustain it. Even though Needy is eventually infected with the same demonic influence, she subjects that power to her own will.

Coming back to Judith Butler (1988), the movie can be understood as a direct interpretation and implementation of her theory of performativity. If Jennifer represents the female gender ideal constructed through societal norms, then Needy represents the "[…] radical critique of gender constitution […]" (Butler, 1988, p. 529) as described by the theorist. She depicts the active deconstruction of fixed categories and social conventions. In fact, Needy is a character that moves through these categories quite rapidly, as her ambiguous sexuality proves.

Viewing the movie from this standpoint, it becomes a necessity that no male lead characters are introduced. Unlike the classic horror story, this is not a film about male and female gender roles. The often psychoanalytical terms used by feminist film theorists such as Clover, Mulvey, and Williams – all of whom wrote their major theories before the 1990s – are of no importance anymore for this movie. It is not a story that depicts how the female Final Girl overcomes and kills the male monster. The monster is not a monster because it lacks a phallus, nor is the Final Girl Needy somehow phallicised. Of course, arguments could be found for both of the above. Yet this would miss the point. *Jennifer's Body* (2009) is a story that depicts the fight between the artificial, dependent woman living up to

male expectations, and the 'real', independent woman. This is the 'new' feminist message delivered by the movie. It leaves the feminist film theories of the 20th century far behind, even though it works with the same codifications, symbolisms, and archetypes already established. How can the stereotypes of horror ever be disregarded, if so many theories criticizing it also actually rely on it? This movie calls for a new feminism that disengages itself from the boundaries it has itself set.

Sadly it remains questionable whether this message was understood by its audience. The motion picture had a rather disappointing success and received very controversial reviews (IMDb, 2009). Due to its genre, cast, and storyline the movie attracted mostly adolescents as spectators – these, however, are not able to decode the complex meaning of the film. Knowledge in film, literature, and feminist theory is an indispensable to understanding the message of *Jennifer's Body* (2009). Thus, to the majority of the spectators, the movie is barely more than an absurd film.

5 Conclusion

The 2009 motion picture *Jennifer's Body* was categorized as a comedy horror film – yet this description fails to grasp the true nature of the story. The movie is a nearly perfect gothic fiction in terms of storyline, dialogues, setting, and symbolisms. It is furthermore a movie that actively works with the codification of meaning in the form of archetypical characters. But why did the creators of this movie draw on the gothic genre, which is nowadays often regarded as outdated (Botting, 1996)? Gothic is a genre that, through its uncanny absurdness, taps into subliminal human fears. It is a genre that always breaks with conventions – whether it is because it mixes horror and comedy, or whether it is because it expresses that which should not be expressed. Gothic fiction always conveys a certain message, and this message is mostly delivered by making use of fear.

Jennifer's Body is no exception to this. It violently puts the focus on the role of the female in today's society, and how women are a creation of male hegemony: "PMS isn't real. It was invented by the boy-run media to make us seem like we're crazy" (*Jennifer's Body*, 2009). Within this one sentence Diablo Cody and Karyn Kusama embedded the purpose and message of the movie. It brings attention to a perceived male supremacy that creates an unreachable and actually undesirable image of the woman. By changing fixed codes and archetypes from the horror genre, this message is mediated. The major example for this is Seyfried's character Needy, who takes the role of the Final Girl. However, she behaves against the

norms of this archetype by, for instance, having sex. By breaking with the conventions used in the horror genre, this movie distances itself from many feminist film theories. Rather, it shows how ideas such as the virginal and virtuous Final Girl are outdated concepts that aid in reinforcing sexual stereotypes instead of disassembling them. On the other hand, Judith Butler's theory of performativity (1988) can definitely be found in the subtext of *Jennifer's Body*. The film intentionally plays with the construction and deconstruction of fixed norms.

However, often it is only the small and subtle deviations from the horror norm that are displayed. When analysing the movie, those changes become very obvious, giving the spectator a clear idea of what the true message of *Jennifer's Body* is. However, this critical perspective simply cannot be expected of the audience. If one does not take the time to carefully analyse the movie and does not have the necessary background knowledge in film and literature theory, the feminist message is unrecognizable behind the paradoxical storyline and the performances of movie-beauties Megan Fox and Amanda Seyfried. Seldom will the average adolescent – who constitutes a majority of the audience – be able to identify the gothic elements and their implications for the movie, nor will they be able to use their knowledge to unlock this statement.

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SOWING SPROUTS TO ENGENDER GREENER UNIVERSITIES

A qualitative study exploring the projects, challenges and strategies of sustainability student groups

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Abstract This study investigates the projects, challenges and coping strategies of sustainability student groups. Through a qualitative design – drawing on interviews and questionnaire results from over 37 student groups in seven countries – the study answers three questions: What projects do sustainability student groups implement? What internal and external challenges do groups encounter? How do student groups cope with these challenges? The results suggest that student groups implement four types of projects, encounter five internal and three external challenges and implement numerous strategies to address these. The strategies are critically reviewed and suggestions for improvement are made where applicable.

1 Introduction

Universities should contribute to a global transformation regarding sustainability in four ways given their role as public institutions of learning and research. Firstly, universities should advance education on sustainable development to enable citizens to address the sustainability challenges of the 21st century (Blaze Corcoran & Wals, 2004). Secondly, universities should strengthen research on sustainable development, such as examining critical sustainability questions related to technology or the social sciences (Wright, 2006). Thirdly, universities should lower the negative environmental and social impacts of operating the institution itself. Finally, universities can act as role models to establish participatory forms of governance to enable those who are affected by the changes to have a voice in the institution's sustainability agenda (Macnaghten & Jacobs, 1997).

The participation and integration of students within the sustainability efforts of a university could support the achievement of these goals in three ways. First, the participation of students in the process can guarantee that their unique perspective is implemented within policies and projects, so that a diversity of perspectives can help to better understand and address the complex challenges of creating a sustainable university. Secondly, the participation and approval of initiatives for change can generate the necessary commitment and legitimacy to implement the initiative among the student body (Levin, 2000). Thirdly, students constitute the largest population at a university, which should be mobilized to implement tangible projects as change agents (Allen, 2000).

This study aims to contribute to a better understanding of the role of organized students groups in the sustainability efforts of universities, in order to advance the contribution of student groups to the sustainability transformation of universities. As such, this study aims to answer three questions: First, what projects do sustainability student groups implement? Secondly, what internal and external challenges do groups encounter? Thirdly, how do student groups cope with these challenges? These questions were answered through an exploratory qualitative study. The sample comprised 37 responses from individual students, representing 32 different student groups from seven countries.

The results of the data analysis suggest that groups implement three types of projects, namely *student-to-student outreach, student-to-university advocacy and student-and-staff projects*. Groups face five internal challenges, namely a lack of people, knowledge, time, funding and difficulties with establishing an efficient internal organization. Additionally, respondents mentioned three external challenges associated with university bureaucracy, disinterest among the student commu-

nity and competition with other student groups. Overall, groups adapted numerous strategies to address these challenges.

2 Methodology

The study employed a qualitative design. Convenience and snow-ball sampling were utilized to select participants. The target group of this study comprised individuals who are or have been involved in groups which describe themselves as sustainability student groups. Overall, 116 individual sustainability student groups and 21 networks were contacted, comprising different sustainability student groups from eight countries.[1] The author's identity as a researcher was revealed to the participants at all times.

37 responses from individual students were included in the data set, which originated from 32 different student groups. Overall, the respondents came from seven different countries: Eleven from the Netherlands, ten from Germany, six from the UK, four from both the USA and Canada, as well as one from both South Korea and Australia. Participants were requested to answer a short questionnaire or to indicate time for an online or telephone interview. A grounded theory approach was used to analyse the data in an inductive process (Bryman, 2008).

3 Projects promoting change

3.1 Student-to-student outreach: 'Students as subjects & objects of change'

Respondents mentioned several activities which were categorized as *student-to-student outreach*, as they focus on the larger student community. A majority of the events directed at the larger student community promoted sustainable consumerism. For example, groups developed a student sustainability guide or organized tours to show first-year students organic and fair-trade shops. Within the category of sustainable consumption, organic and fair-trade food inspired multiple events: For example, groups taught organic and vegetarian cooking classes, organized a farmer's market, sold local vegetable baskets or ran a campus vegetable garden.

[1] Australia, the USA and UK, Canada, Germany, the Netherlands, South Korea, China and South Africa.

The tangibility of projects on sustainable consumerism is associated with three benefits that could explain their prominence. Firstly, these projects relate more easily to the daily experiences of students. Consequently, students might more easily establish a stronger emotional connection to these issues, which drives their participation. Secondly, cooking dinners or running a student vegetable garden has a positive social and fun aspect. More students might be inclined to participate in sustainability activities which are fun and allow them to meet new people. Finally, student groups can also generate some revenue in addition to doing something good, by selling for example notebooks made from recycled paper or organic vegetable baskets.

Groups act as important change agents to educate and influence their peers, through these *student-to-student outreach* projects. With reference to the introduction of this study, the promotion of awareness and behaviour change within the university community has been established as one element of a sustainable university. Consequently, universities that want to advance cultural change within the student community should investigate ways to collaborate with these student groups.

3.2 Student-to-university advocacy: 'Creating pressures from outside the system'

Groups implemented several activities which were categorized as *student-to-university advocacy*, because groups pressure for organizational change through grass-roots activities. For instance, to promote changes within the educational portfolio, one group lobbied for the integration of Corporate Social Responsibility modules in economics programs. Through these projects, groups tried to hold their university accountable for its actions and to push levers inside the organization which would implement the required changes. Student advocacy projects are important to further remind administrators to improve the sustainability performance of the university. In this sense, student groups can function as an important pressure group to urge a university to start or accelerate a systemic process for change towards sustainability.

3.3 Student-&-staff projects: 'Promoting change from inside the university'

Student-and-staff projects emerged as a third category, comprising activities in which students together with staff or faculty members implemented tangible projects at the university. For instance, students and staff members developed a voluntary sustainability curriculum and an undergraduate research project, to advance education on sustainable development. Then, several projects were implemented to limit the carbon footprint of operations, such as programs to reduce the electricity consumption of computers. These projects illustrate the

important work groups conduct to change the educational infrastructure or improve the university's social or environmental footprint. Given the fact that students represent the largest population at a university, administrators might be interested in findings ways to empower this energy and dynamic to partake in the institution's transformation towards sustainability.

4 Five internal challenges with numerous creative solutions

4.1 People: 'Finding members and engaging leaders'

Groups experienced four challenges related to the recruitment, commitment and continuity of members, as well as their leadership qualities. First, almost all groups reported that they lacked "enough people to realize all the projects we have." The missing number of helping hands was considered a key barrier to create meaningful change. Outreach efforts to recruit members were stressed as one of the main strategies to address this issue. In their outreach strategies groups should emphasize the benefits new recruits will experience when joining the group. For instance, Clary and Synder (1999) identified six motivations why people volunteer: it allowed them to develop social relationships, to express values they support, to acquire new skills and knowledge, to gain career related experiences, to reduce guilt or negative feelings, and to grow psychologically.

As a second challenge, groups struggled to commit members. Several respondents mentioned that two or three members represented "the core of the group" on whose initiative most activities would depend. One respondent to the present study attributed this commitment problem to "non-existing economic incentives or legal obligations", which do not provide enough 'carrots or sticks' for people to volunteer. One group tried to increase the commitment of members, by not only making people "active in the project, but [to forge] a community." Different social activities were employed to achieve this objective – such as cooking evenings or weekly drinks. Research supports that this could be indeed a successful strategy, as group identification is an important motivator for activists to join and stay within a group (Bettencourt, Dillmann, & Wollman, 1996).

As a third challenge, participants mentioned the "fast turnover of students" as a third concern. One respondent expressed that due to the constant fluctuation of students, his group would be "lacking 'new blood'". This would lead to a situation in which "you're constantly recruiting in a way." Whereas lack of commitment was attributed to missing incentives or obligations, the difficulty to retain people within the group for a longer period of time appears to be evoked by the study system: one participant explained that a major reason for this lack of con-

tinuity was "the Ba/Ma System with an international focus and thus an obligatory exchange semester during Bachelor and Master", which leads students to frequently change universities.

Finally, groups encountered problems with recruiting students, "who like to be project leaders, take responsibility and are enthusiastic about their project." Despite the importance of student leaders to motivate people and acquire resources (Perlman, 1976), one participant reported that this type of student was especially difficult to recruit, as his group kept looking for "not only leaders, but entrepreneurs who want to go into the university to change something." During his search for project leaders, he mainly encountered students who were interested in global sustainability issues and less in the hands-on work of creating tangible change at the university.

4.2 Knowledge: 'Knowledge is power'

Next, respondents stressed the continuous loss of knowledge between student generations and the missing sustainability-related knowledge within the group. Concerning the former, one student mentioned that their team had "a high turnover - meaning most students leave after a year." As a consequence, "each new team has to learn everything from the start." One of the main strategies to transfer knowledge from one student generation to the next one occurred through a knowledge library, meaning that online software to store documents was used to create a "virtual memory". Another strategy included overlapping transition periods between board members.

Secondly, groups emphasized a lack of sustainability-specific knowledge. For instance, one participant complained that this led to a "persistent ignorance" within the group and "uncoordinated approaches of behaviour change, which are not based on behavioural psychological theories." This problem increased if groups tried to instigate change in knowledge-intensive areas, such as designing courses for sustainable development or developing an Environmental Management System. In this regard, a lack of knowledge functioned as an important barrier inhibiting ambitious groups who wanted to instigate positive, systemic changes.

However, knowledge can not only function as a barrier to participation, but groups could also use their knowledge as a strategic tool. With reference to Foucault (1981) 'power' provides its holder with the ability to define 'knowledge'. In reverse, 'knowledge' provides power over others, in the sense that 'knowledge' defines for instance what is perceived as (un)sustainable policies. Consequently, groups could use their unique knowledge as a source of power, for instance by altering or expanding the definition of sustainability the university employs. The

university administration might define sustainability in more narrow and technical terms and with a strong link to environmental efficiency. Social aspects or democratization of university structures might not be one of their primary interests. In this sense, students could exercise power by broadening the existing canon of knowledge on sustainability.

Overall, groups utilized four strategies, to either mobilize knowledge from the outside or to safeguard internal knowledge. Firstly, groups compensated for the internal lack of knowledge, by "trying to find experts who are willing to be our advisors." Then, groups mentioned a quest to acquire the necessary knowledge running "trainings and skill shares ourselves", by drawing on books or other online training resources. Thirdly, groups developed skills and knowledge through feedback or reflection rounds after meetings or events. Finally, one participant described that he "literally went on the internet to google for stuff, e.g. how to set up an agenda for a meeting."

4.3 Time: 'Students are always busy'

Next, participants raised concerns that their group could not dedicate enough time to their projects. This lack of time was attributed to the previously mentioned lack of commitment, as "people regard this project as something which runs parallel and see university as the main thing." Groups applied different strategies to address the lack of time. Respondents mentioned that their groups had "been mainly concentrating on getting the most important projects done" or to "get more members active within the board." Nonetheless, the perceived lack of time was not only linked to the commitments of members, but also the ambitions of the group itself. One respondent self-critically explained that "we're planning too many or too big things, which we then can only realize with difficulties or not at all." This over-ambition can emerge from spotting and wanting to realize too many opportunities at once. One strategy to address this problem of over-ambition could be to critically examine the time the student group has at its disposal, and then to match these resources to more realistic project ideas.

4.4 Funding: 'Money is always scarce'

Respondents reported a lack of money preventing them from scaling-up projects. The main sources of funding for groups appear to be membership fees or project-specific funding from the university. The main barriers to applying for external funding are not being a legal entity, as well as knowledge about where and how to apply. To address the lack of funding, groups tried to increase their budget or spend the money more carefully. For instance, one group tried "to make a magazine and then to run advertisements of companies in it." With regard to external

funding, one group mentioned that it acquired the legal status of a non-profit organization to "also in the legal sense [have] the opportunity to get better funding." However, this dependency on external funds might increase the dependency of groups on the university or external donors. Especially groups which are engaged in *student-to-student outreach* could benefit from organizing events to promote sustainable consumerism, which are self-funding, promote the goals of the group and might generate some additional income.

4.5 Internal organization: 'How to create an efficient structure?'

As a last internal challenge, participants raised concerns about how to efficiently coordinate resources. For instance, one interviewee described how her "lack of coordination know-how" resulted in too little planning of the project, as well as too little ownership of specific tasks, so that people did not feel responsible. Insufficient communication within the group appeared as the second problem, for instance as one respondent mentioned that communication problems augmented when the communication between the project leaders and the board dried out. Groups found different strategies to address these issues, so that improved delegation and communication decreased time pressures for the group. For instance, increased communication through more frequent meetings, emails or telephone calls was one strategy. Another group split-up projects into smaller tasks so that task ownership could be established more easily.

5 Organizational resistance, inter-group competition & student disinterest

5.1 University: 'Building alliances to alter the status quo'

Respondents stressed the challenge to identify support channels within the university, to work their way through the institution's bureaucracy and to deal with organizational resistance. First, groups encountered problems with the "lack of transparency of support channels", to find out "who can help the project, how and in what competence." Respondents attributed this problem mainly to the fact that they had "no reference person" who they "could ask for advice". Secondly, bureaucracy was perceived as "an issue in terms of all of the hoops one must jump through prior to having projects gain approval." This "hierarchy of institutions, organizations [and] established pattern" made it "hard to get change moving with any kind of speed." Thirdly, groups also encountered actions by the university management or administrators which were perceived as intentional actions "to throw stones on our way."

Overall, external challenges related to the university can be mainly accounted for by the outsider position of student groups and the lack of power emerging from this position. Respondents mentioned that their group had only "limited influence on the head of the university and decision makers." This "limited influence" was mainly attributed to the fact that "no institutionalized channels for student engagement and participation exist". This lack of power restricts the operating range of groups. For example, one group mentioned that they tried to conduct projects inside the residence halls. However, since the group had "no legitimate voice in halls of residence", they needed to negotiate with green officers who had the final decision whether or not a project obtained approval. Hence, the participant responded that "if the priorities of green officers are different from ours, we lose."

Collaborating with actors within the university or creating alliances with other student groups represented the most common strategy to overcome those challenges. The collaboration with the university actors allowed the group to gain a greater basis of approval and support, which then further attracted people who thought about sustainability in a similar way. Sustainability coordinators or offices were most commonly mentioned as allies, whereas other groups involved professors or appealed to the senior management.

Integration of the student group into the university represented another strategy to overcome these challenges. Two student initiatives within the sample managed to receive support from their university. One student initiative at the German university in Duisburg/Essen wrote a proposal to the head of the university and received funding for five people to work on sustainability issues over the next two years. The student group then started different projects, such as an audit or extracurricular sustainability curriculum. At Maastricht University, a sustainability student initiative established the university's student-driven sustainability department. A team of seven students and the environmental advisor coordinates and implements different sustainability projects and is responsible for the university's sustainability policy (Maastricht University Green Office, 2011).

Incorporating a sustainability student initiative into the university can help the group to overcome some of its challenges. The allocation of a budget enables the group to implement larger projects and to establish direct contact to university stakeholders, thus easing problems associated with a lack of support channels. Moreover, paid jobs increase the commitment and continuity of student involvement in the project. However, groups should be aware of the strategic tradeoffs associated with becoming part of the university's formal structure, or remaining outside the system. For instance, groups working outside the university might be more successful at lobbying for systemic changes. On the contrary, student groups

working from the inside of the institution might engage less in open criticism, because they depend for funding on the goodwill of the institution (Mitra, 2006).

5.2 Student groups: 'Moving beyond competition'

Moreover, one student group experienced difficulties due to the competition for resources with another group. The respondent claimed that "for a reason I don't understand they are 'cooler' than we." According to the participant, this better image led to the fact that "many people [are] engaged in that group." Despite one open concern about competition between the groups, most groups mentioned that they tried or were already cooperating with other sustainability groups.

Groups interested in improving inter-group cooperation should take several factors into consideration. For instance, Di Giacomo (1980) suggested that common cultural and ideological identities are two necessary conditions for inter-group cooperation, because similarity facilitates interaction. This favourable condition could be created through open discussions about the different identities of the groups. Moreover, continuous interaction between group members is important, because it reduces negative biases and creates a common fate (Gaertner et. al., 1999). Networking events or common social activities could be one opportunity to allow interaction between the members of different groups.

5.3 Student community: 'Establishing legitimacy & overcoming disinterest'

The last main external challenge respondents emphasized were two problems related to the student community, namely a lack of legitimacy and student disinterest. Firstly, one respondent described the negative connotations students associated with their group: "Because we're a sustainability student group, people saw us as hippies, as an alternative crowd." In this sense, students associated negative stereotypes with sustainability which were then projected onto the activist group. This limited the ability of the student community to take the projects of the group seriously and to be receptive to their messages.

Secondly, groups struggled to overcome barriers that prevented the student community from adopting more sustainable thinking and behaviour. Several respondents framed the barrier in terms of a lack of understanding or awareness about sustainability issues. Also within the academic literature on sustainable universities, a lack of awareness about sustainability issues features as a prominent explanation for difficulties in creating personal change towards sustainability (Velazquez, Munguia & Sanchez, 2005). With reference to this problem analysis, raising awareness about sustainability issues would be the most effective solution.

However, Doppelt (2010) suggests that disinterest constitutes only one barrier to promote sustainable thinking and behaviours. He states that behaviour change

goes through five stages, namely disinterest, deliberation, design, doing and defending. According to this approach, overcoming disinterest through awareness constitutes only the first step. Other actions are required to develop more sustainable behaviours, such as helping students to deliberate about the changes they want to make, designing a plan of action and implementing this plan, as well as defending the new ways of thinking and behaviours.

Doppelt's model is very useful, because it breaks up any simplistic dichotomy between unsustainable and sustainable behaviours. The model illustrates the many steps involved in the process of moving from awareness towards action, as well as the possible oscillations that can occur in between. However, groups should not only advocate behaviour change, but also realize how students' behaviour is intrinsically linked to the design of the buildings they use. This would mean for student groups that promoting awareness and behaviour change among students should not leave out the importance of the sustainable design of buildings in the first place. A double strategy of advocating for more sustainable buildings along with projects to address behaviour change could be one way to address this issue.

6 Conclusion

This qualitative study examined the projects, challenges and coping strategies of sustainability student groups. The results suggest that these groups implement three types of projects: Firstly, *student-to-student outreach* increases awareness for sustainability issues and promotes behaviour change within the student community. Secondly, students lobby for change at the university level through *student-to-university advocacy*. Thirdly, students collaborate with stakeholders inside the university to implement different *student-and-staff projects*. These types of projects further illustrate the contributions sustainability student groups make to the sustainability transformation of their universities through the education of peers, holding the university accountable and working as change agents to implement tangible projects.

Next, the results indicate that groups face five internal challenges, comprising a lack of people, knowledge, time, funding and difficulties with establishing an efficient internal organization. A lack of commitment and continuity emerged as the two most important factors influencing the amount and kind of people involved within the group. Groups implemented multiple strategies to address these internal challenges. These strategies can be divided into attempts to mobilize resources from the outside or to better deal with internal resources.

Additionally, respondents mentioned external challenges associated with inter-group competition, university bureaucracy and resistance, as well as disinterest among the student community. Whereas inter-group competition featured only as a minor challenge, almost all respondents trying to implement changes at their university reported problems associated with bureaucracy or resistance. The lack of power associated with the outsider status of student groups emerged as one of the main reasons for their inability to advance changes within the institution. Alliance building and incorporation of the initiative into the institution emerged as two strategies to obtain a certain insider status.

Then, disinterest among the student community was mentioned as a third external challenge. However, disinterest appears to be only one barrier to the adoption of more sustainable thinking behaviours. Overall, promoting behaviour change is a complicated task which would require groups to guide their audience through different stages, to further advance sustainability within the student community.

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SPEAKING WITH STUDENTS IN SORORITIES

How female student association members perceive the influence of injunctive norms on their health and academic performance

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Abstract This study investigates how female student association members in the Netherlands experience the impact of injunctive norms on their health and academic performance. Five semi-structured, in-depth interviews were conducted. The results indicate both positive and negative effects. Health is positively influenced, as members experience social connectedness and feel accepted for their looks. A negative impact on health is found through increased perceived stress when year club formation is difficult and increased alcohol intake. Academically, members indicate an increased motivation to study as well as support from the association to improve their academic performance. These results can be used to design more effective interventions to avoid study delay, which is currently a problem in the Netherlands, as well as an intervention to reduce excessive drinking in associations as this is health-damaging behavior.

1 Introduction

In the Netherlands, students can be divided into two main groups: those that have joined a student association and those that have chosen not to. A student association is the Dutch term for an organization that organizes social events for its members. Student associations are internationally known under the term fraternities and sororities. Media and academia tend to reflect the downsides of being in such organizations by highlighting issues such as excessive alcohol use (Huchting, Lac, & LaBrie, 2008), study delay (Schmidt & Simons, 2011), and increased risk for eating disorders and a low sense of physical self esteem (Basow, Foran, & Bookwala, 2007). Yet this did not discourage 7,500 new members to join this year (SUM Redactie, 2011).

My paper only focuses on female members. This decision was made due to existing gender differences in how one views the self in social relationships. Men tend to be collectively interdependent, and define themselves more in terms of membership to a large group, while women are more relationally interdependent, as they define themselves in terms of their close relationships (Aronson, Wilson, & Akert, 2010). Because this can significantly affect how membership is perceived and to avoid confounding variables, this paper will solely consider female members.

This paper questions how sonority members feel that they should behave to fit in their association. This construction is reflected in injunctive norms, because Aronson, Wilson and Akert (2010) define injunctive norms as "people's perceptions of what behaviors are approved or disapproved of by others" (p. 270). These norms differ from descriptive norms, which they define as "people's perceptions of how people actually behave in given situations, regardless of whether the behavior is approved or disproved off by others" (p. 270).

My study aims to discover if members actually experience that their membership influences their health and/or academic success due to a wish to act in accordance with their association's norms. Health will be defined as: "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization, 1984). Examples of healthy behaviors are maintaining social inclusion, limited substance use, and stress avoidance. But media and academia did not only highlight health problems associated with membership, they also brought up academic issues. Because members of student associations are in tertiary education, a negative effect on academic performance would be problematic as well. Furthermore, health and academic performance can affect one another, i.e., doing well at university could lower stress levels and improve well-being.

On the other hand, feeling or behaving unhealthily could distract from university and worsen one's academic performance. For these reasons the following combined focus was chosen. The research question posed is: How do female student association members in the Netherlands experience the impact of injunctive norms on their health and academic performance?

2 Significance

The social relevance of this study originates from the fact that only a few studies have analyzed Dutch student associations, although they play an important role in the lives of many students in the Netherlands. Because not much prior research has been conducted on this specific topic, a qualitative methodology will be used. This ensures that the study is not limited to only testing its prior assumptions. By allowing the members to speak for themselves, an insider's understanding of this phenomenon can be gained.

In addition, this study is essential because the findings could provide an insight into why many of the problems associated with sorority membership occur. Over the past year, the Dutch government implemented a law that penalizes students who require more than one additional year for their university degree. They will have to pay a fine of 3000 euro (Algemeen Nederlands Persbureau, 2011). This new law's aim is to avoid "langstudeerders", which are people who take too long to complete their studies. Members of associations are an 'at risk population' for study delay (Schmidt & Simons). Understanding why student association members think they could be at risk of delaying their studies, for example because academic neglect is socially promoted, could help in pinpointing why certain problems might occur.

Interventions to tackle the increase in health-damaging behaviors associated with membership, such as substance abuse and unhealthy eating habits, could also be designed more effectively. This is important, because students are already a high-risk population for engaging in health damaging behaviors (Carter, McGee, Taylor, & Williams, 2007), especially since it has become clear that health behaviors established during late adolescence are consistently associated with behavioral patterns in adulthood, recognizing and designing interventions to tackle factors that encourage health damaging behaviors during adolescence is important in promoting long-term health (Nelson, Neumark-Stzainer, Hannan, Sirard, & Story, 2006). As association members have been shown to engage in unhealthier behavior than non-affiliated students (Scott-Sheldon, Carey, & Carey, 2007), this could be a potential factor that encourages health-damaging behav-

ior. This makes increased awareness into why members feel they might engage in health-compromising behaviors even more essential.

3 Contextualization

Given that little research has been conducted on Dutch student associations, I will draw upon literature about similar organizations in the United States. These phenomena are rather similar, but they do differ regarding certain factors. A secondary goal of this research is to compare these two social phenomena.

In the United States, student associations are part of the so-called Greek system (Dohanos, 2003). Commonly, Greek organizations promote themselves as organizations that provide opportunities for socialization, leadership, and philanthropy (Allison & Park, 2004). The Dutch associations mentioned by my participants focus mostly on socialization, but they also offer leadership opportunities, i.e., members can chair one of the many committees within an association. American associations are strictly gender separated: sororities are solely for women and fraternities only for men (Clegg, 2010). However, usually sororities and fraternities pair up with one another to organize certain mixed events.

The latter is one aspect in which the Netherlands differs from the United States. The majority of student associations are mixed in one overarching "studentenvereniging", which literally means student association. There are two main types of student association. There are the so-called "gezelligheidsverenigingen", which are associations that strictly provide social activities. The other type is the rowing student association, which provides social activities but has an emphasis on rowing and related competitions.

Within these associations, smaller groups are formed and these groups often consist of members of the same gender. Each student association member will be part of at least one of these groups, namely their year club. A year club is a group formed of 10-15 members of the same gender within an association. Usually, people get together at least once a week with their year club, for example to have dinner together. This year club forms a member's base within the association.

4 Methodology

4.1 Data Collection

This research is qualitative, because qualitative research is a way of understanding the meanings attached to the studied phenomena through the eyes of the

participants (Warren & Karner, 2005). I used in-depth, semi-structured interviewing. This approach was chosen because most sororities are quite secretive organizations. Members are usually not willing to publicly share their experiences with outsiders. By conducting individual interviews, I hoped to ensure that the participants felt comfortable enough to not hesitate to share their thoughts. The interviews are semi-structured because I wanted to touch upon certain topics that are particularly important for my research, but I also wanted to allow space for the participants to express what is important to them.

During November 2011, five interviews were conducted in Dutch and lasted about 20-30 minutes with each participant. With one of the participants I had a follow-up interview, namely with Alice. I had first interviewed her in late September when she had only just become a member, but I wanted to see if her perspective had changed by late November. After conducting the interviews, I transcribed them.

The sample I used was a convenience sample, as I only approached my own friends from student associations. Because I personally knew all the participants well and they trusted me, the willingness of subjects to share increased. It also enabled me to continue hearing about their perspectives on membership even after the interviews had been conducted. However, because I am not a sorority member myself, I did have outsider status. This outsider status ensured that I did not take concepts for granted as shared knowledge. Therefore, I asked the participants to clarify and elaborate more on their answers and certain concepts used until they made sense.

The names of my participants have been altered into Alice, Eva, Katja, Sanne, and Silvia. The five of them represent a mixed group of female student association members. Alice, Eva, and Silvia belong to social student associations in two different cities, namely Utrecht and Leiden. Katja and Sanne belong to rowing student associations in Rotterdam and Maastricht. By having interviewed members from both types of student associations and from four different cities, I hope to have collected data illustrative for female student association members in the Netherlands. Alice, Eva, Katja, and Sanne are all first year members, because this is when the influence of social norms would be particularly salient. Silvia has been a member for three years and belongs to the same association as Alice, which allowed for a two-sided narrative to arise.

With regard to ethics, I informed the participants of my role as researcher and stated that I was open to questions if they had any. I explained that my research was looking into the role student association membership played in their lives. Before starting the interview, all participants signed informed consent forms and provided permission for the taping the interviews. In order to

ensure confidentiality, I have changed the names of the participants on the interview transcripts.

4.2 Data Analysis

After having transcribed the interviews, I analyzed my data guided by the grounded theory approach. This approach is commonly used by researchers trying to learn about their participants' lives, which fits my goal of understanding female sorority members' reality (Charmaz, 2006). Grounded theory comes with several systematic principles on how to collect and analyze data (Atkinson, Coffey, & Delamont, 2003). This approach led me to the creation of inductive categories (Sarkey, Lau, & Sahay, 2001). The key categories that I created were substance use, study, appearance, stress, motivation, and belonging. I asked another student who was not connected with any of the subjects and also not a member of a student association to read through the interview transcripts and code them as well. I did this to reduce my researcher subjectivity, because even though I have outsider status, there are limitations. I am also Dutch and that I personally know all the subjects.

After coding, I gathered the responses from all participants on a specific topic and combined this with previous research on that same topic. For each topic I created a memo where I compared research with that of my participants to examine similarities and differences, which led to my results.

5 Belonging Needs

My participants' main motivation for joining an association was to meet new people and make friends so that they could avoid being lonely in an unfamiliar city. This replicates Clegg's findings that girls join sororities to form new relationships. Friends are an important source of social support (Helsen, Vollebergh, & Meeus, 2000). Many studies found that social support and social inclusion have beneficial effects on students' health, such as increased physical activity (Ullrich-French, Smith, & Cox, 2011), reduction in feelings of depression (Sun, Buys, Stewart, & Shum, 2011), and increased subjective well-being (Khan, & Husain, 2010). Being part of an association increases social connectedness and can thus be an asset to someone's health.

On the other hand, feelings of not fitting in reflected in perceived social isolation can have harmful effects on one's physical, mental and social well-being (Cacioppo & Hawkley, 2003). Among their results, they discovered that individuals who perceive themselves as ostracized experience daily stress more intensely

than those who feel well integrated, they cope less effectively, and their physiological rest and recuperation are less efficacious, such as their sleep.

The beneficial effects of inclusion and the harmful effects of social exclusion underline the importance of having friends. Starting university involves the separation of students from their close friends and the social support they provided in addition to being confronted with new situations and new people (Friesz, 2009). Therefore, the inclination of sorority members to actively seek out new friends and avoid isolation is in itself a protective health behavior.

Nevertheless, during the first weeks of initiation new members have reported experiencing increased levels of stress and anxiety (Clegg, 2010). These greater levels of stress and anxiety are undesirable, because they negatively affect their mental well-being. These increases can be explained through the process of conformity, which leads to having to redefine oneself, and the fact that sororities demand a lot of time (Clegg, 2010). Paxton and Mood (2003) state that a time commitment is needed to increase a sense of belonging. Once members feel they belong, they experience social inclusion and support. All of my participants indeed mentioned that in the first few weeks the association took a lot of time. They said that only attending the official mandatory meetings that occur once or twice a week was not enough. In order to truly be accepted as a member, one needed to spend time with the other members, preferably also senior members, outside of the organized events as well.

Throughout my data analysis, I discovered another factor that influences a female member's sense of belonging into a Dutch student association, namely the ease of year club formation. Year club formation is the process by which the members form small, gender-segregated subgroups within the association. In order to create these groups, there is often a period of 5-10 weeks in which all female members do activities together such as having drinks, called "borrels". Some of my participants really enjoyed this introductory period and it contributed to their sense of belonging. Eva for example, described the process as follows:

> *"I feel completely at home. I go to my association at least three times a week, and sometimes more. And the girls from my year club, so a group of 13 girls, I see almost everyday."*

On the other hand, Silvia was of the opinion that first years do not feel at home within the association in the beginning, when they are forming their year club. At least, she did not. Alice, a member of the same association as Silvia, supported Silvia's observation. According to Alice, year club formation was a stressful process.

She described it as followed:

> *"Throw 230 girls in one room, and tell them to form groups of ten to fifteen. Then you might be able to imagine how this leads to one huge drama and that it is simply horrible."*

Alice mentioned that somewhere during the process of year club formation, she was kicked out of her potential group. She saw the group she eventually ended up with as a random mix of people, some of whom she liked, some of whom she did not. This could explain her feelings:

> *"Well, I used to feel at home in my association, but the year club formation kind of ruined it for me. Now I just don't really know how I feel about it anymore."*

To compare this to Clegg's (2010) findings, it seems that Eva, Sanne and Katja are not like American sororities girls, whereas Alice and Silvia fit her description of being stressed and anxious in the beginning perfectly. I spoke with Alice a week after the year club formation period had ended and it all visibly still upset her. It distressed her so much that she almost wanted to cancel the interview. Nevertheless, when I talked to her two months later she had become much more relaxed about the whole situation and she now enjoys her membership a lot. A similar situation happened with Silvia. She regarded year club formation as difficult because she felt that she had to be her best and happiest self at all times, which she regarded as tiring. Nevertheless, she now really likes her year club and recalling the initial weeks of her membership did not appear to distress her.

It is difficult to pinpoint what determines the ease with which one forms a year club. Research suggests that it depends on one's social skills (Pijl, Frostad, & Mjaavatn, 2011) and one's willingness to comply with the group's social norms which increases one's popularity (Hartley, 1960). In the opinion of my participants, other factors are more important. For Sanne and Katja, members of rowing associations, they were both lucky to have initially been assigned to a boat with random girls who they got on so well with that they ended up staying together. Eva also mentioned:

> *"During the work week, a part of initiation, I had fortunately already met three girls I really liked so we had already decided to be in one club together before the formation period even started."*

Alice and Silvia mentioned that it is easier for certain people to form a group. According to Alice,

> *"I would not want to say that girls who form year clubs easily are brainless frumps ("tutjes"), because some are just really nice and that is why everyone wants to be with them, but if you do not have a strong opinion and are more 'standard' it is easier."*

When I asked what being 'standard' was, Alice was not sure how to describe it exactly but said that for example playing hockey is really common in her association. She said that for girls who are very different, such as homosexual girls, it would be very hard to be truly accepted, simply because there are only so few similar girls. Alice also said that being opinionated makes it harder to fit into a year club. Silvia said that 'standard' people enjoy partying and wear certain cloths. Their observations reflect what was found in the literature, namely that the more one conforms to the group's norms, the easier one fits in and the less stress one experiences.

It appears that the harm to mental health due to stress during initiation is temporary. Only Alice remarked that the process was not great for her self-esteem. But in the end, all of my participants seem to have found the social connectedness, which improves one's well-being.

Yet stress due to feeling as if one does not belong is not the only way in which members' health can be affected. Fitting in by taking more risks than normal can also jeopardize members' health. According to Clegg, new members "put their belongingness needs over their safety needs" (p. 91). Compliance to norms occurs in such a way when conformity is thought to result in favorable reactions from the influential group members (Ding, 2005). In the case of student associations, first years often look to the senior members to see what behavior is common and accepted. Closer attention will now be paid to the ways in which compliance with perceived social norms affects one's substance intake, one's physical self esteem and eating habits, and one's academic performance.

6 Substance Use

Several studies report that sorority members drink more frequently than other students (DeSimone, 2010; Maggs, Williams, & Lee, 2011; Wechsler, Kuh, & Davenport, 2009). Within the Netherlands, similar results were found (Ahlers,

2005). Ahlers argues for several factors that cause members to drink more, namely:
(a) alcohol at the association's bar is relatively cheap
(b) discounts are given when buying more alcohol
(c) some associations allow their members to drink on a monthly bill, so they do not feel as if they are spending much money on alcohol
(d) some rituals and games dictate excessive drinking.

Another possible factor is the injunctive drinking norm. Greek members often think that the others view a high alcohol intake as acceptable, overestimate the drinking of the other members, and consider drinking important to remain popular (Berkowitz, 2005; Larimer, Turner, Mallet, & Geisner, 2004; Lewis et al., 2011). Results from Larimer et al. confirm that the injunctive drinking norm is a significant potential predictor of (future) drinking behavior. Park, Sher, Wood, and Krull (2009) remark that Greek influence on drinking mostly occurred during the first semester, but that the effects continued.

All of my participants mentioned that they are used to drinking at the association. Sanne, Katja, and Alice said that they drink much more and more often now than they did before they joined. Some of their explanations for the perceived increase in drinking overlap with Ahler's (2005) findings, namely that alcohol at the association is cheap. In an informal conversation with Eva she also said that she drinks more now because she does not need to pay with cash at the bar. Furthermore, Alice said that in her association one cannot buy one drink but you always get at least two, which also increases the availability of alcohol. Alice illustrated her increase in drinking as follows,

> *"I did start to drink more. Not because I have to, but it kind of happens automatically. I get a lot of free drinks. (...) Sometimes older members do encourage drinking, then they say come on let's sociably drink a lot tonight or they ask me to down some beers."*

This demonstrates that social pressure is another reason for members drinking excessively. Sometimes senior members encourage drinking. It was also mentioned that going to the weekly parties at the association's bar, "socieiteit", increases drinking, as my participants feel that everyone drinks during those nights. An example is Alice, who is a DJ at her association. During one two-hour shift, other DJ committee members bring her four beers to drink and if they come with a new one when she has not finished yet she is mocked for drinking too slowly. Another example of an event where the social pressure to drink is high is "cantus". This is an event that involves singing and drinking beer. My participants said that during such events one can choose to sit at the water table, a designated table for those not drinking, but that sitting there is frowned upon.

However, joining is not always associated with a perceived increase in alcohol intake. Eva and Silvia said they always drank quite a lot and that the amount did not increase. Nevertheless, Silvia did say that in her first year at the association she drank more than she does now, which supports Park et al.'s finding.

More frequent cigarette and drug use compared to other female students has also been reported (Scott-Sheldon, Carey, & Carey, 2008). Interestingly, Sanne is the only participant that occasionally smokes, but only when going out. Sanne's smoking behavior confirms the injunctive smoking norm suggested by Nichter, Nichter, Carkoglu, and Lloyd-Richardson (2010), which is that it is accepted to be a party smoker, but that members disapprove of regular smokers. With regard to drugs, Silvia is the only one who during the interviews talks about having tried XTC three times.

> *"Quite some at my association have tried XTC. Not that anyone is addicted, it just makes you feel super happy."*

When I later casually asked Alice about this, she acknowledged that XTC use is socially accepted within their association, but that she had not used it herself. However, the fact that one of my participants tried XTC three times in three years of membership does not suggest that members use drugs more frequently than non-members.

7 Appearance

Conformity can also affect a woman's sense of physical self-esteem. The injunctive norm regarding appearance most commonly internalized among American members is that of thinness (Brennan, 2005). According to her, sorority members significantly underestimate how much others experience a sense of low physical self esteem, while they overestimate the importance of their appearance to others and how much others engage in eating disorder behaviors such as dieting. Rolnik, Engeln-Maddox, and Miller (2010) discovered that women who joined a sorority showed an increase in a sense of low physical self-esteem one month after joining.

Additionally, Basow, Foran and Bookwala (2007) found that sorority members had more risk factors for the development of eating disorders, as they score higher on levels of objectified body awareness, disordered eating attitudes, and perceived social pressure than non-affiliated women. These scores were even higher if the participants lived in sorority housing. Additionally, their results

showed that women with high risk factors were likelier to want to join a sorority than other female students.

So when I asked the girls if they experienced any pressure to look a certain way within their association, their answers surprised me. I had expected that they would feel a certain pressure to look thin. Yet, most of the girls started to talk about the clothes they had to wear during certain events at the association, such as knee-length skirts and special scarves. When there are no outfit restrictions, people still dress similarly according to Silvia and Alice. Most girls try to wear outfits that are 'in'.

Regarding a member's appearance, Eva and Katja both remarked that looks always matter, but that within an association it plays a smaller role than in daily life, because everyone accepts one another in the association. Alice, Sanne, and Silvia all mentioned that most girls gain weight during their membership. As Silvia said,

> *"We all gain a bit of weight during our time as a student. That is why it is fine, and not a problem at all."*

Because it is viewed as normal to gain weight, none of my participants experienced extreme pressure to look thin. Sanne and Alice both associate their weight gain with their drinking behavior. Alice does want to start cutting back on her drinking and to exercise more to lose some of the weight she put on. Sanne on the other hand is okay with putting on extra weight, because she feels that it is more important to be able to enjoy herself at the association than to be thin.

Research seemed to indicate sorority housing as a risky environment where a sense of low physical self-esteem increased. Yet, this was not reflected in my findings. All the participants except for Katja live in houses with members and were thus at risk. However, in the answers given I did not notice any unusual feelings of low physical self-esteem, nor did my participants seem to have eating disorders. In my experience, the girls do not differ significantly from non-affiliated female students that I know.

8 Academic Performance

Now that the perceived impact on health has been discussed, a consideration of the influence on academic performance will be evaluated. Health could be a moderating variable in the relationship between membership and performance, as the changes in member's health due to increased substance use and mental

distress have been found to negatively affect their university work/grades and feelings of success (Ruthig, Marrone, Hladkyj, & Robinson-Epp, 2011).

Regardless of health, other effects on performance have been found. Grubb (2006) found that Greek members average grades are lower than of other students. Furthermore, DeBard, Lake, and Binder (2006) found that becoming part of a fraternity or sorority has a negative impact on the grades for the first term after they have joined. Schmidt and Simons revealed that Dutch members are at risk of delays in their studies.

Nevertheless, others have found that membership can have a positive impact on one's academic performance. Martin, Hevel, Asel, and Pascarella (2011) found through a comparison of first years across different universities that members of the Greek system do not differ significantly from unaffiliated students. Within the Netherlands, researcher de Gruijter (2006) at the University of Leiden even found that members of student associations were less likely to terminate their studies than non-members.

Regarding academic norms among university students, a common belief is that women perform better academically and study more (Grabill et al., 2005). However, research has not yet been conducted on academic norms among sorority members. When I asked my participants if a certain academic norm existed, for example that it was cool to neglect university, they all wholeheartedly said that it would be more the opposite. Eva mentioned an example,

> *"I know someone who is 27 and still doing his bachelor and he is being regarded as kind of a loser."*

In Sanne's opinion there are only a few guys who consider it cool to delay their studies, but that she does not like them that much. Other examples mentioned to illustrate cases of study delay always involved male members only. It appears that among girls it is important to do okay at university. All of the girls were certain that they were not risking a delay in their studies by being a member. Alice and Eva both remarked that they do relatively easy degrees at university and that therefore they have enough time to spend at the association. The other girls mentioned that they managed to make it work, that it was mostly a matter of time management. According to Eva, being in a sorority made her want to succeed more in university.

> *"By being a member, I want to stay in Leiden. If I want to stay in Leiden, I need to continue studying here, which means that I need to pass enough courses, because otherwise I risk getting kicked out of university."*

Some associations actively encourage their members to not neglect their studies. By illustration, Alice once informally spoke to me about needing a certain amount of courses passed (positive binding study advice) to join committees at her association. Eva's association even offers free tutor sessions right before exam week. Thus, it appears that the girls do not experience their membership as a burden on their studies, but rather that it sometimes even positively affects academic performance. Performing well academically appears to be specified as passing courses, but not necessarily as getting high grades in those courses.

9 Conclusion

This explorative study yielded some interesting results. Some of the differences between the insider perception and what academic research has found are striking. Partially, this can be reflected as a cultural difference, given that the majority of the research was conducted in the United States. Contrasts between my study and previously conducted research become particularly clear with regards to belongingness needs and appearance. An increase in stress and anxiety during the first weeks was reported. My participants who struggled with year club formation experienced this increase, yet the others did not. The pressure to look thin that becomes salient through previous studies does not reflect in my findings. On the contrary, my participants mention that it is very accepted to gain weight, because most members do, partially due to the increase in drinking. Their first response when asked about looks had to do with what clothes to wear, which further decreases the salience of a thinness beauty ideal.

Regarding the impact of membership on substance abuse the stereotypical impression that members drink excessively appears to be accurate to a certain extent. All my participants drink quite a lot at their association. Only the ones who were of the opinion that they always drank much already did not perceive an increase in alcohol intake. Monetary reasons as well as social pressure are mentioned for this perceived increase in alcohol intake. My participants seem to view drinking as a big part of sorority life. Smoking is less common among my participants than research suggests. Only one of my participants smokes and she only does this during parties. The norm seems to be that party smoking is approved, but regular smoking is not. This norm is similar to the one previously found by studies. Use of drugs was only reported by one participant and does not seem to play a major role in student associations.

Membership does appear to affect academic performance, but not in the way Dutch media portrays it. Delaying your studies by taking more time for a degree

than is needed is frowned upon. My participants are able to combine membership with academic performance through effective time management. Being a member can even increase academic motivation. Lastly, several associations try to improve members' academic performance.

These results have significant implications for several groups of stakeholders. On an individual level, these results can help prepare both future members as well as members' parents for what the impact of membership on health and academic performance can be. Nationally, Dutch academia and policy makers can benefit from these findings. Academically, the findings contribute to fields such as, but not limited to: Psychology, Health Sciences, and Pedagogy. Policy makers can use the results to intervene more effectively. By illustration, effective time management seems to lessen the experienced risk of study delay. If all students, regardless of whether or not they are in an association, would be educated more about successful time management, the amount of students who delay their studies might diminish, as time management works effectively for my participants. With regards to drinking, imposing higher prices in student association bars could reduce members' alcohol intake. Internationally, these results contribute to an understanding of the differences and similarities between the American and Dutch culture of student associations.

Further research investigating the specific impact of membership on the motivation to score high grades would be very interesting. With regard to health behaviors, it would be interesting to quantitatively examine the relationship between membership and health to see if my results can be replicated with a larger sample. It is important to keep exploring this topic, because student association membership affects the lives of many students in the Netherlands. The more that is known about the associated advantages and disadvantages, the more we can make sure that the positive outweighs the negative.

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The Maastricht Journal of Liberal Arts is a peer-reviewed journal which encourages and rewards excellence in bachelor research. The articles in this edition were carefully selected from a large number of submissions and represent the best research conducted by University College Maastricht students. The topics tackled in the published papers are wide ranging, as is to be expected of a multi disciplinary journal and their scope and methodologies reflect the different disciplines studied at the college.

Submitting an article to a peer reviewed academic journal is usually an intimidating undertaking for the most seasoned of researchers, for bachelor students it is an especially daunting prospect. Every researcher knows that criticism and praise from the academic community is both a challenge and a spur to greater achievements. The earlier a scholar can experience this vital element of academic endeavor, the better they will be prepared for a future career in research. The editors were convinced that UCM students would more than meet this challenge and we have pleasure in stating that our expectations have been met.

Students are fully represented on the editorial board and have carefully performed their tasks as editors in maintaining academic standards and selecting the very best papers for publication. Any journal needs to also be formatted and praise must be given to the members of the board who provided their expertise in this time consuming part of the process. Thus the journal both provides students with the invaluable experience of submitting papers to peer review and also allowed them to participate fully in the editing process.

The fourth edition of the Maastricht Journal of Liberal Arts sets out to demonstrate the academic prowess of both University College Maastricht and its students. Not only are the students of the college hard working scholars but they are also diligent and inspired researchers. Therefore the editorial board is proud to present the fourth edition and is sure that the academic community will recognize the added value that the published papers make to the subjects they discuss and analyze. It is the goal of every academic journal to promote the highest standards of research and to promote originality and excellence to the wider academic audience and the Maastricht Journal of Liberal Arts follows in this tradition.