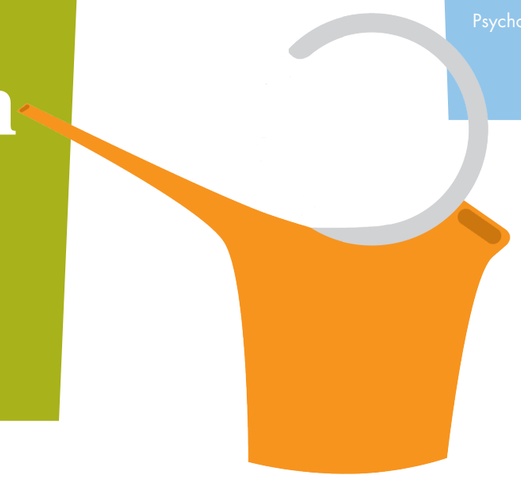
№ 5

HONOURS REVIEW



I always find it hard to believe the year has gone by so fast and that the warm nights of June creep in through the window once more. Knowing the academic year is coming to its end always triggers a reflection – what have I achieved? How have I grown? My answer to these questions is condensed into one word: Exploration. Two months of exploration lie ahead of us as we put the last exams behind us and are free to travel, meet people, visit unknown regions. But one does not have to travel far to explore new regions; I consider this to be the privilege of the student. Endless fields of knowledge are available for us at every turn. Every day the philosopher brushes shoulders with the psychologist, the literary critic with the journalist, the scientist with the skeptic. But too often we miss our chance to explore these fields, these people. We focus on our own thoughts as we let others pass us by, and fail to realize we are all connected, if only by trying to make sense of this world. A professor of mine once told me that once I realize everything is connected, I will know I have realized something great. I believe that by this he captured the essence of knowledge; it is a never ending thirst, but a beautiful quest. Our goal at *Honours Review* has always been to bring varied fields of knowledge under one roof. In this issue, as always, we take it one step further and with the help of Minerva Art Academy designers we bring you articles wrapped in art. We invite you to explore those regions that are unfamiliar to you and to revisit those that are.

As T. S. Eliot wrote:

"We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time"

I leave you with my own poem in which I hope to have conveyed the sense of our common love for knowledge, exploration, and summer.

To My Yearly

What treasures do you hide amidst those foggy sheets of yours?
Do unveil your mystique substance, daring are your words.
I place you on the table, shelf, my mantelpiece. Then sit,
and contemplate both what is said, and what is still left hid.
I do not know what plains of knowledge lurk within your pages.
But the apple, red, awaits my teeth to bite it down with pleasure.

S. L.

To Forge in the Smithy of My Soul

James Joyce and the Beginnings of Modernism

Bas Sprenger de Rover: English Language and Culture & Philosophy

James Joyce (1882-1941) is widely regarded as one of the most influential writers of the twentieth century. Sadly, his works are also often associated with great difficulty, which is no doubt due to the unfortunate reputation of Joyce's two last and most famous novels, *Ulysses* (1922) and *Finnegans Wake* (1939). However, what is perhaps the least well-known of Joyce's works is also the most readable: in his 1916 debut novel *A Portrait of the Artist as a Young Man* the author uses intricate but comprehensible language to chronicle the development of a small boy into an ambitious young artist. Despite its relative obscurity, the book regularly features in the top 5 of lists of the most important books of the last century (1), and it is widely regarded as one of the most important examples of a Künstlerroman (a novel about the coming of age of an artist) in the English language. Its position of perennial high regard among academics and literary critics alike is probably best explained by the fact that the work contains Joyce's first attempts to minimise his authorial presence by experimenting with a number of narrative techniques that would become characteristic of modernist literature (2). It is the aim of this article to explore how the personal and artistic development of the novel's protagonist, Stephen Dedalus, is represented through Joyce's pioneering techniques. However, in order to do this effectively we first require a brief sketch of the literary landscape of Joyce's time.

1) Modern Library. "100 Best Novels." *Random House LLC*, accessed 04/28, 2015, http://www.modernlibrary.com/top-100/100-best-novels/.

2) Mullin, Katherine. 2007. "James Joyce and the Languages of Modernism." In *The Cambrigde companion to the modernist novel*, edited by Cambridge University Press, 99-111.

Either explicitly in essays and manifestos, or implicitly through the themes and structures of their works, Joyce and many of his contemporaries rebelled against the copious amounts of attention accorded to (apparently) mundane matters by literary realism. This artistic movement had reigned supreme in English language literature for the latter half of the eighteenth century, producing works that were firmly rooted in everyday reality.

The novels of such established names as George Eliot (*Middlemarch*) and Henry James (*The Portrait of a Lady*) included detailed accounts of physical surroundings, common procedures, and the societal questions of the day, often resulting in rather hefty volumes. In 1922, Willa Cather (who was born in 1873, when literary realism was at its height) wrote an essay titled "*The Novel Démeublé*," in which she challenges the conventions of realist literature. It is not prosaic detail or 'furniture' that counts in artistic prose, she argues, but the inner lives of the characters portrayed. Mocking the meticulous enumerations of everyday minutiae that abound in realist novels, Cather asks: "Is the story of a banker who is unfaithful to his wife and who ruins himself by speculation in trying to gratify the caprices of his mistresses, at all reinforced by a masterly exposition of the banking system, our whole system of credits, the methods of the Stock Exchange?" (3). Although Cather's essay was written roughly six years after the publication of *A Portrait of the Artist*, it is a testament to the literary developments that were taking place in Joyce's time. Much the same thing might be said of the works of Virginia Woolf (1882-1941), whose *Mrs Dalloway* (1925) is a perfect example of a work of fiction that sees the conception of literature championed in Cather's essay put into practice. In it, Woolf explores at great length the troubles and musings of a number of different characters, paying far more attention to internal dialogue than to the description of scenes or factual states of affairs, as does Joyce in his debut novel. On the other hand, in sharp contrast with *A Portrait*, which portrays its protagonist from his infancy to young adulthood, Woolf's novel has very little plot to speak of, with the action taking place over the course of a single day. However, the move from the distanced description of the external to the intimate examination of the internal is characteristic of much Modernist literature, even though the many formal experiments of Modernist writers led them to create works that are structured quite differently. It is exactly such scrupulous, unrelenting and oftentimes stifling examination of the internal world of a budding artist that constitutes almost the entirety of Joyce's first novel, and it is the aim of the rest of this article to provide an equally scrupulous examination of the narrative techniques it pioneered.

Though the length of many of these works can also be explained in part by pointing to the contemporary convention of publishing books in serial form, with consecutive installments being printed over a longer period of time.

3) Cather, Willa S. "From *the New Republic*", 30 (April 12, 1922): 5-6. University of Nebraska-Lincoln, last modified May, accessed 03/15, 2015, http://cather.unl.edu/nf012.html.

> When Stephen's attention is distracted from class proceedings by a sudden intense appreciation of colours, he can do them no more justice than to call them 'beautiful' three times in as many lines.

The first major theme in Stephen's artistic development is that of the evolution of his perceptive sensibilities. In chapter one, events and experiences are indiscriminately described in terms of sensory input: "He felt cold and then a little hot: and he could see the names printed on the cocks. That was a very queer thing" (4). In this passage, Stephen relates his physical experience in the simplest possible manner, by stating what his sensations were at that moment without adding any interpretation or explanation. Also, his observation that what he had experienced was 'a very queer thing' is a testament to the combination of sensitivity and inarticulacy that is characteristic of the first chapter. Though he senses that there is something odd about the impression, he can as yet make no more of it than that it is queer. Moreover, in stark contrast to his later analytical, rather more wordy perspective on things, in the early chapters Stephen judges many experiences simply by how immediately comfortable or uncomfortable they are: "It was nice to hear it roar and stop" (4). Stephen's amazement at "How pale the light was at the window! But that was nice" (4) not only constitutes another instance of this simple nice/not nice dichotomy in his apprehension of experience, but it is also early evidence of the protagonist's aesthetic sensitivity.

4) Joyce, James. 2008. *A Portrait of the Artist as a Young Man*, Oxford University Press.

Crucially, in the first chapter this sensitivity mostly manifests itself as simple, sudden wonderment at sensory experience, in this case visual. The rudimentary stage of Stephen's analytical faculties is underscored by the simplicity of the description of this wonderment, for the paleness of the light is not represented in metaphor or likened to some apparently unrelated concept, but is instead merely prefaced by a romantically exclamatory 'how' and concluded with an exclamation mark. Similarly, when Stephen's attention is distracted from class proceedings by a sudden intense appreciation of colours, he can do them no more justice than to call them 'beautiful' three times in as many lines (4).

Even in less emotionally laden accounts of Stephen's reality we are made acutely aware that he perceives things almost entirely through the way they suggest themselves to his senses: "It was not like the smell of the old peasants who knelt at the back of the chapel at Sunday mass. That was a smell of air and rain and turf and corduroy" (4). In fact, Stephen's senses are so dominant in the way he experiences the world that he struggles to imagine his acquaintances doing different jobs, purely because "you would have to think of them in a different way with different coloured coats and trousers and with beards and moustaches and different kinds of hats" (4). Here, not just objects' but even peoples' identities are explicitly equated with what the protagonist knows about them through his senses.

"His mind bred vermin. His thoughts were lice born of the sweat of sloth"

It is near the end of the first chapter that we get a first glimpse of Stephen's emancipation from his exclusively sensory perspective, when he observes that "There were different kinds of pains for all the different kinds of sounds. A long thin cane would have a high whistling sound and he wondered what was the pain like" (4). Two types of sensory input (sound and pain, and touch) are correlated in a relatively abstract and systematic manner. In line with this development towards a more conscious, reason-governed perception, early on in chapter two we are presented with one of Stephen's first deliberate attempts at experiencing aesthetic pleasure, when we are told that "He waited to catch a glimpse of a well scrubbed kitchen or of a softly lighted hall and to see how the servant would hold the jug and how she would close the door" (4). This process of the development of conscious behaviour and an increasingly rational apprehension of events and emotions continues throughout chapters three and four: Stephen respectively suffers through a religious crisis that forces him to stress (and thereby develop) his mental faculties, and experiences an aesthetic epiphany that suddenly makes him acutely aware of his own aesthetic abilities and ambitions. This development is then concluded in the book's final chapter, which documents Stephen talking about (and thus placing him necessarily at an analytical remove from) art, in a most elaborate, systematic and rationalised manner. What began with the protagonist's simple sensitivity to sensory impression is shown to develop into an acute awareness of his own artistic talent, as testified by his tortured observation that "His mind bred vermin. His thoughts were lice born of the sweat of sloth" (4), which shows that Stephen has outgrown providing simple descriptions of immediate sensory input, and is now capable of consciously recognising and judging his own imaginative output.

The evolution of Stephen's imagination and the inception and development of his artistic creativity together constitute the second major theme in the protagonist's aesthetic maturation. Though the protagonist produces no creative work in the first chapters, they do contain evidence of his increasingly conscious and imaginative relationship with words. Much like the early manifestations of Stephen's sensory perspective, the first few times he mentions words and language suggest an interested but insecure and unsophisticated appreciation: "Suck was a queer word. (…) But the sound was ugly. (…) When all [the water had] gone down slowly the hole in the basin had made a sound like that: suck. Only louder" (4). A word is described as queer and ugly, indicating sensitivity but rudimentary understanding, experience and imagination, for these adjectives go no further than describing the acute sensation they evoke. His as yet unrefined ability of description is apparent once more when the young protagonist is utterly taken aback by the sad magnificence of the words of a nursery rhyme: "How beautiful and sad that was! How beautiful the words were where they said Bury me in the old churchyard! A tremor passed over his body. How sad and how beautiful! He wanted to cry quietly, but not for himself, for the words, so beautiful and sad, like music!" (4). What distinguishes this passage from the one quoted before is clearly the force of the experience presented, making it both a final confirmation of Stephen's sensitivity to language, and a first hint at his later susceptibility to fits of revelatory ecstasy.

A Portrait as a whole is essentially "a structural compromise between linear and cyclical elements"

As with the maturation of Stephen's perception, we find that an early sensitivity is gradually experienced more consciously, and, also in concurrence with the pattern observed earlier, conscious experience leads to increasingly imaginative manipulation. In the first chapter we exclusively encounter the simplest of similes, both in terms of form and imagination, as when the noise of the refectory is said to have "made a roar like a train at night" (4), and when Stephen notes of a fire that "It was like waves" (4). In the second chapter however, Stephen's imaginative vocabulary drastically increases, resulting in such phrases as "They [prostitute's lips] pressed upon his brain as upon his lips as though they were the vehicle of a vague speech" (4). In a phrase like "the vehicle of a vague speech" we find an early instance of the more sophisticated, lofty vocabulary Stephen starts manipulating more effectively and frequently in chapter three: "His soul sickened at the thought of a torpid snaky life feeding itself out of the tender marrow of his life and fattening upon the slime of lust" (4). Besides being a testament to his interaction with Christian imagery, this extended metaphor is one of the first in the book and constitutes a significant step in the development of the protagonist's imaginative abilities, for it shows that Stephen's imagination has by now completely emancipated itself from his previously dominant simple appreciation of sensory input.

Though we constantly see Stephen's artistic sophistication increase, it is worth noting at this point that the process of the protagonist's maturation is not exclusively portrayed as an increase in verbal proficiency. As Tobias Boes suggests, *A Portrait* as a whole is essentially "a structural compromise between linear and cyclical elements" (5), and one of the major cyclical elements is the alternating complication and simplification of Stephen's language. One significant example of this simplification is the protagonist's sudden glorification of modest beauty, which occurs shortly after the sophisticated metaphor quoted above, and features exactly the same hallmarks of simple and sentimental expression as Stephen's ecstasy over pale light in chapter one: "Till that moment he had not known how beautiful and peaceful life could be. The green square of paper pinned round the lamp cast down a tender shade. (…) White pudding and eggs and sausages and cups of tea. How simple and beautiful was life after all!" (4). Sidney Feshbach on the other hand stresses the linearity hidden even in this ecstatic return to simplicity, arguing that the ecstasies at the end of each chapter "form that specific traditional progression called (…) the 'ladder of perfection'[:] vegetative, animal, rational, angelic, and divine" (6).

5) Boes, Tobias. 2008. A Portrait of the Artist as a Young Man and the "Individuating Rhythm" of Modernity. *ELH* 75 (4): 767-785.

6) Feshbach, Sidney. 1967. "A Slow and Dark Birth: A Study of the Organization of A Portrait of the Artist as a Young Man". *James Joyce Quarterly* 4 (4): 289-300.

Stephen's artistic maturation enters a final phase when in the fifth chapter he observes how "His own consciousness of language was ebbing from his brain and trickling into the very words themselves" (4). This sentence tells us that Stephen is now aware of his own consciousness of words, and his subsequent musings on some ivy on a wall prove that he deliberately practises his facility with words. As he concludes the novel by proclaiming that he will "forge in the smithy of my soul the uncreated conscience of my race" (4), we are effectively told that he aims to harness his talent in aid of a greater cause, substantiating Katherine Mullin's observation that "Joyce's aesthetic is also ideologically laden, as his art acknowledges its roots in historical and political realities" (2). The text's epigraph, its very first line, can thus be explained by looking to its very last: the young artist has at the end of his beginning determined that he must 'apply his mind to unknown arts,' that is, to create something radically different and new, in order to generate a 'conscience' for 'his race'. Whether that race be the Irish people or mankind in the modern era, this pronouncement is at once the formulation of the artist's essential project and a first step towards its completion, for it is the last sentence of a revolutionary work of art. The protagonist's newfound determination to engage with the issues of the world around him, then, constitutes the crucial emancipation from his earlier disdain for and distance to others, marking the conclusion of his development from a troubled youth into a young artist.

Joyce moved towards internalising the action within Stephen's mind; a movement from narrative driven plot to internalised rhythmic moods.

This article has examined the narrative representation of the protagonist's aesthetic development in James Joyce's first novel. By linking the maturation of Stephen's sensory and intellectual perception to the way his experiences are related, Joyce pioneers a uniquely accurate and captivating narrative technique, opening up a completely new way of representing reality in literature. As the Irish James Joyce Centre puts it, "Joyce moved towards internalising the action within Stephen's mind; a movement from narrative driven plot to internalised rhythmic moods" (7).

This revolutionary approach to narrative was to have a lasting influence on literature the world over, and would be used and developed further by a host of acclaimed authors. In Joyce's artistic debut as a novelist, we find an intriguing account of the maturation of a young aesthete, compellingly narrated through the techniques of maturing modernism.

7) The James Joyce Centre. "A Portrait of the Artist as a Young Man.", last modified September 5th, accessed 03/16, 2015, http://jamesjoyce.ie/portrait-of-the-artist-as-a-young-man/.

Notably Joyce's personal student Samuel Beckett (Waiting for Godot, 1953).

The Enemy at Home

News Framing of Campus Rape in US Newspapers

Christie Suyanto: Media and Journalistic Culture

As the new academic year began in September 2014, Emma Sulkowicz, a senior at Columbia University in New York, started carrying a twin mattress to every single class that she attended. Her burden, however, is much more than a physical one. Twenty-year-old Sulkowicz initiated the act as a form of protest against her college's handling of sexual assaults. In 2012, Sulkowicz claimed to have been sexually assaulted by a fellow student at her own dorm room. Columbia's panel members, however, stated that the assault was physically impossible and the perpetrator was cleared of charges. The ugly truth is that Sulkowicz's case is just the tip of the iceberg: one of many campus rape cases in the US. In 2011, Angie Epifano of Amherst college was assaulted in her dormitory. Meanwhile, in 2012, a University of Virginia freshman was gang-raped in a fraternity house. It is therefore unsurprising that in the past decade, the issue of campus rape has been under an increasingly close scrutiny in the US media.

However, from the journalistic point of view, the concern does not only address the fact that these cases are being discussed, but more importantly how they are being discussed. Arguably, the way the press frames a news story about sexual assault is equally important as the story itself. Based on this argument, a research was conducted that investigated news frames that are present in the coverage of campus rape cases in US newspapers. It argues that there are six frames used by authors in discussing campus rape cases. The first part of this article discusses the theoretical foundation of news coverage on sexual assault, whereas the second one discusses the findings of the research.

Entman defines the process of framing as "select[ing] some aspects of a perceived reality and mak[ing] them more salient in a communicating text" (1). By utilizing this process, journalists can select which elements of an event to emphasize, include and exclude. Therefore, framing allows distinctive representations of the same event or issue.

1) Entman, Robert M. 1993. "Framing: Toward Clarification of a Fractured Paradigm." *Journal of Communication* 43 (4): 51-58.

In theorizing media's representation of sex crime victims, Helen Benedict describes stereotypes that revolve around a dichotomy: the "Vamp" and the "Virgin". In the "Vamp" version, the female victim is depicted as possessing questionable moral values. She is constructed as a figure who dresses in promiscuous attires and compels the perpetrator to assault her. Meanwhile, in the "Virgin" version, the victim is a martyr-like figure. Opposite to the victim, the perpetrator is portrayed as a beast: a gruesome sexual deviant (2). There is no doubt that Benedict's concept is useful in discussing how problematic the press' traditional coverage of sex crime is. More than anything, this dichotomy shows that the news can undermine the complexity of sex crime by reducing victims, and perhaps perpetrators as well, into oversimplified caricatures while overlooking the bigger picture.

2) Benedict, Helen. 1992. *Virgin Or Vamp: How the Press Covers Sex Crime*. NY: Oxford UP.

However, analyzing the framing of sexual assault requires thinking beyond this dichotomy. After all, the issue of sexual assault, especially sexual assault on campus, is not just a matter of crime and gender, but also concerns both educational and governmental institutions. It compels us to question the integrity of universities, a domain in which students are supposed to be fully supported and assisted and in which rape culture should not be tolerated.

Her burden [...]
is much more than a physical one

Indeed, previous studies conducted by researchers show various angles used in framing rape cases. Undoubtedly, more traditional framing of sex crime tends to be misogynistic (i.e. hatred or dislike towards women). For example, Meyers argues that in the coverage of sexual assaults, "the news positions the female victim as deviant and deserving of condemnation" (3). Meanwhile, a study by Anastasia and Costa's shows that victims are depicted in distinctive manners, depending on their sexes. Although most victims are female, male victims often generate more empathy because they are framed in a more personal way (4). That said, more progressive frames also exist. For instance, Nancy Worthington's analysis of the *Sowetan Online* identifies three frames that encompass unfair treatments of victims: "(I) ubiquity of rape, (II) enforcing male dominance, and (III) justice denied" (5). Such frames enable the press to address problems like injustice and patriarchy that are part of sex crime.

3) Meyers, Marian. 1997. *News Coverage of Violence Against Women: Engendering Blame.* Newbury Park, CA: Sage.

4) Anastasia, Phyllis A. and Diana M. Costa. 2004. "Twice Hurt: How Newspaper Coverage may Reduce Empathy and Engender Blame for Female Victims of Crime." *Sex Roles* 51 (9/10): 535-542.

5) Worthington, Nancy. "Progress and Persistent Problems: Local TV News Framing of acquaintance rape on Campus.", *Journalism Studies* 8 (1): 1-16.

Another example is Worthington's examination of the news frames used in reporting a case of campus rape on local TV news. Worthington discovers a dominant victim-centered frame that is exhibited through various themes, such as the university's unfair punishment of perpetrators as a recurring pattern and the university's tendency to cover-up the story to maintain their image (5). The significance of these findings is twofold: firstly, it demonstrates a progressive approach taken by media; secondly, it discusses a subtopic of sexual assaults that is still uncommon in media studies: campus rape. Like those researches, a study conducted by the author of this article attempted to move beyond stereotype-centered frames and to investigate more progressive frames, especially those related to the social aspects of the cases. Upon the examination of 40 articles published in seven US Newspapers (*The New York Times*, *The Washington Post*, *Providence Journal*, *Tampa Bay Times*, *The Buffalo News*, *USA Today*, *San Jose Mercury News*) from November 1, 2013 to October 31, 2014, six frames were found: the University Frame, the Authorities and Government Frame, the Athlete Frame, the Social Movements and Victim Empowerment Frame, the Youth Culture and Stereotype Frame, and the Personal Frame.

As the name suggests, the University Frame is characterized by discussions regarding universities' involvement in campus rape cases. These discussions vary in terms of topics, but they ultimately focus on university policies, responses and handling of cases. This frame is the most dominant one, as it constitutes 35% of the data.

Different stances on this matter are incorporated into the frame. Some articles depict the institutions in positive light by mentioning their effort to remedy the issue through "an extensive campaign to promote awareness" (6) or their commitment to "a sacred duty to [the] students and their families" (7) However, most articles criticize campuses' inadequate handling of rape cases. School boards are often deemed uninformed, therefore providing victims with unhelpful and even misogynistic responses. For example, an article depicts the *Hobart and William Smith Colleges* as a university "ill prepared to evaluate an allegation so serious that, if proved in a court of law, would be a felony" (8), due to uninformed members of the school's panel, who did not examine the victim's medical reports and instead asked her if she was inebriated during the incident. Universities are often described as unable to enact justice, therefore resulting in the overall frustration.

6) Winerip, Michael. 2014. "Stepping Up to Stop Sexual Assault." *The New York Times*, Sunday, February 9, 2014.

7) Murphy, Katy. 2014. "Campus Sex Assaults; Calif. Recommends Standard Response." *Providence Journal*, Sunday, September 21, 2014.

8) Bogdanich, Walt. 2014. "Reporting Rape, and Wishing She Hadn't." *The New York Times*, Sunday, July 13, 2014.

Meanwhile, the Authorities and Government Frame depicts campus rape in relation to the authorities, the government, and/or law and order. Considering the criminal nature of rape, it is unsurprising that this frame encompasses 33% of the data.

More traditional framing of sex crime tends to be misogynistic.

While most articles are relatively neutral and describe campus rape as a crime that authorities have to deal with, a lot of the articles also demonstrate either positive or negative stances. While a few describe the government's responses and guidelines as being useful to "bring more order to the process [of handling campus rape]" (9), others are critical. Similar to the University frame, officials and lawmakers are often portrayed as providing insufficient handling of the cases. Although they are rarely portrayed as entirely incompetent, it is often said that authorities "don't go far enough" (10) or that they should "take the cases seriously" (10). One article even cites an expert pointing out that "the police just do not do the investigation" (11) because they are not proactive in initiating investigations, as it is in the case of other crimes.

9) The Editorial Board. 2014. "New Rules to Address Campus Rape." *The New York Times*, Monday, June 30, 2014.

10) The Editorial Board. 2014. "College Rape Bill Necessary, if Not enough." *Tampa Bay Times*, Monday, August 11, 2014.

11) Pérez-Pēna, Richard and Walt Bogdanich. 2014. "In Florida Student Assaults, an Added Burden on Accusers." *The New York Times*, Monday, September 15, 2014.

12) McIntire, Mike and Walt Bogdanich. 2014. "Home Field Advantage." *The New York Times*, Sunday, October 12, 2014.

13) Baker, Matt. 2014. "Winston Case has all Sides at Odds." *Tampa Bay Times*, Saturday, October 11, 2014.

14) Fitzpatrick, Edward. 2014. "Students Press Colleges on Sexual Assault." *Providence Journal*, Thursday, May 8, 2014.

Essentially, the Athlete Frame, which includes 10% of the data, synthesizes some aspects of the University Frame and the Authorities and Government Frame by criticizing both educational and government institutions for supporting rapists who are athletes. They are also described as overlooking the suspects' wrongdoings and the victims' accusations due to the bias. One article describes how the police "have soft-pedaled allegations of wrongdoing by Seminoles football players" (12) while another quotes a source stating that the Florida State University "is willing to break [laws] to protect [their] football program" (13). Despite these justice-related frames, articles are rarely framed in terms of Social Movements and Victim Empowerment. Out of all the articles, only 5% (2 articles) are framed as such. One of them discusses how students are pressing the government and their colleges to help end campus rape. It states that "change is coming, thanks largely to students themselves" (14). In this article, a victim is also described like an activist who is proactive and "publicly critical of the school" (14).

"Change is coming, thanks largely to students themselves"

She is portrayed with agency, not just as a passive victim. Two organizations that aim to remedy the issue are also mentioned, while the leader of a nonprofit movement is quoted. Meanwhile, the other article explicitly calls for the empowerment of female victims so that they stop blaming themselves. It states that "our [women's] responsibility is not to cover ourselves up and tamp down our desires" (15), therefore rejecting the narrative of victim-blaming and directing the blame towards perpetrators instead.

15) Hartmans, Avery. 2014. "Why College Women must Report Rapes." *USA Today*, Friday, August 29, 2014.

Universities are often described as unable to enact justice

At the other end of the spectrum, the Youth Culture and Stereotype Frame, which is exhibited in 15% of the articles, directs the blame towards youth culture, such as drinking and casual sex, which are said to contribute to the prevalence of rape cases. Admittedly, not all articles with this frame are negative. Some articles state that rape is still a "violent crime" (16) and not a "misunderstanding" (16) despite the fact that it is partly affected by youth culture. Some authors also provide some constructive criticism. Others, however, contain a slight degree of victim-blaming or stereotyping, albeit implicitly. For example, an article questions if "the male is entirely to blame" (17) when both parties are inebriated. Another article states that the government is exaggerating the issue of rape and claims that "some of what people now insist is rape was consensual" (18), even citing women's involvement in the youth culture that enables "free-wheeling, emotionally detached sex for the fun of it" (18).

16) The Editorial Board. 2014. "For Campus Rapes, Focus on Prevention, Not just Reaction." *USA Today*, Tuesday, August 5, 2014.

17) The Editorial Board. 2014. "Make Love, Not War." *The Buffalo News*, Wednesday, February 26, 2014.

18) Ambrose, Jay. 2014. "Exaggerating Campus Rape Provides Us no Solutions." *Providence Journal*, Wednesday, August 13, 2014.

Finally, the Personal Frame, which describes rape incidents in terms of the emotional and physical harms that victims and their families have to undergo, is only demonstrated in one article, or 2% of the data. In this article, the author describes her own experience of being sexually assaulted, including graphic details of the incident and how she "locked [her] door and cried" (19) after suffering the assault. However, it is worth noting that some aspects of this frame, especially the victims' trauma and the families and friends' feelings, are often present in other articles, although they are not predominant.

19) James, Joni. 2014. "On Campus, Safety First." *Tampa Bay Times*, Sunday, August 24, 2014.

What do these frames say about the way our media present cases of sexual assault on campus? First of all, we must acknowledge that the fact that Movements and Victim Empowerment Frame merely encompasses 2% of the data indicates that the social aspect and activism regarding sexual assault are not discussed often enough. Non-profits and movements that aim to cultivate equality and justice for victims are sometimes mentioned, but they are rarely discussed at length. If we consider the fact that the process of framing entails making some aspect "more salient in a communicating text" (1), then social movements come across as much less relevant and important compared to other aspects. Obviously, this can be problematic because it means that the idea that women, especially victims, are able to combat sexual violence is still underexposed.

This, however, does not mean that the frames are not progressive. Although most frames do not explicitly argue against victim-blaming or advocate victim empowerment, the most dominant frames are critical towards universities and authorities' treatments towards victims. They encourage such institutions to operate more effectively and to go beyond their current treatments.

The idea that women, especially victims, are able to combat sexual violence is still underexposed.

We must also realize that the Youth Culture and Stereotypes frame can be considered unprogressive, even problematic. In fact, it can enforce the rape myth that sexual assault is often linked to intoxication and/or casual sex, especially when teenagers or young adults are involved. Although some of the articles with this frame do try to make this connection in order to provide constructive criticism for college students and the youth in general, they still run the risk of undermining the idea of rape as an unlawful, criminal act and perpetuating implicit victim-blaming. Fortunately, despite such implicit stereotypes, the Vamp-Virgin dichotomy is rarely found in the framing of these articles. Although the victims are often said to be undergoing physical and emotional trauma, they are not demonized, sexualized, nor wholly victimized. In fact, in some cases, the victims are given some degree of agency. For example, in an article with the Social Movement and Victim Empowerment frame, a victim is depicted as being "publicly critical of the school" (14) that provided her with unfair treatments.

Despite the fairly progressive portrayal of sexual assault on campus, our work as a society is not done. Media outlets must work towards constructing an even more inclusive and multi-faceted reporting and framing that is free from problematic ideas like victim-blaming and stereotypes. Meanwhile, media consumers must be critical towards said media outlets, therefore enforcing progressive viewpoints. It is important to remember that strong, positive media influence can assist society in handling sexual assault, and perhaps even eliminating victim-blaming and the widespread rape culture once and for all.

Looking at the Beetle in the Box

Language as a Prison of Experience

Lucas John Emmanuel Köhler: Philosophy

The morning sky is blue and the atmosphere at *The Orchard* is peaceful. The tea garden in Grantchester is filled with light, setting a perfect environment for a quiet cup of tea at the start of the day. Two characters are seated just next to an old brick wall, which is covered in vines. Ludwig Wittgenstein, the British-Austrian philosopher stirs his tea with a small spoon, he is a tall man with wrinkles of contemplation on his forehead. Seated next to him is a curious young man with a hint of excitement and agility in his face, A.J. "Freddie" Ayer, a rising star in British philosophy. The two colleagues had been taking long walks around Cambridge to foster ongoing debates. Wittgenstein continues the conversation after a big sip, "Imagine you were standing next to the railway station and you forgot when the train was going to leave. It is in our nature to check the timetable rather than relying on our memory, Freddie. You would in no case fully rely on what you remembered, but you would go and check the exact time! Looking up a table in the imagination is no more looking up a table than the image of the result of an imagined experiment is the result of an experiment" (1). Ayer nods respectfully and replies: "Sir, I understand your concern, but I do not follow your explanation. Our personal experiences can never be truly validated if we do not trust our senses and mental states". Wittgenstein shakes his head in disbelief and says: "Our senses and especially the perception of physical objects are to be trusted. We have been brought up with characteristics of those and there is enough consensus over what we see to be sure that they exist as though we perceive them". Ayer humbly tilts his head to the left and quietly responds: "But this is where I do not agree, Sir. No matter how much consensus over a physical object, an emotional state or a spoken word, there is no way of validating and confirming anything really. In the case of language, the meaning that any one of us attaches to the word is coined in terms of the individual's own experience".

1) Ayer, A. J. 1986. *In Ludwig Wittgenstein*, 75-80. London: Penguin UK.

Human communication through language has been the core of discussions in various fields for centuries: Aristotle's approach to argumentation, William Shakespeare's influence in poetic writing, or more recently, Barack Obama's rhetoric abilities in political speeches. These are highlights of fields in which language and the perception of language are crucial. While language is obviously essential to communication, one can stumble upon fundamental questions regarding its use. In the field of argumentation, this question could be: "Can we be certain that our internally produced logic and reason is externalized through language in the exact manner we intended it?" In the world of poetic writing, one could ask, "is it really possible for a poet to produce a uniform emotion in people's minds by words, or is the perception of the words different from individual to individual?" Finally, "does language allow politicians to express political intentions and persuade people with rhetoric methods or will the public always be influenced by the context in which the words are spoken?" All of these questions are connected to an argument coined 'private language argument', which was first discussed by Ludwig Wittgenstein in his 'Philosophical Investigations' (1953) (2). Wittgenstein wondered whether it is possible to create a language that solely describes subjective, 'private', experiences. A language that is not influenced by conventions, that has never developed through the discrimination of words and sounds or by cultural factors, and that does not fall slave to grammatical systems. Such a language would transform the essence of communication, for it would change from being a means of representation to being a norm for pure experiences. Today's scientific discourse offers various theories that challenge this idea. Noam Chomsky - a leading researcher in the field of the evolution of language - and with him many scientists, support the notion of a language acquisition device (3), which posits that every human being has an inborn 'device' that predisposes individuals to learn any language with which they grow up. Therefore, it is in the nature of human beings to learn the language that they are taught in childhood – this leads us to ask the question: will we never be able to describe our own subjective experiences in its purest form, because we are limited by the language we were taught?

Ludwig Josef Johann Wittgenstein (1889 – 1951) was an Austrian-British philosopher who worked primarily in logic, the philosophy of mathematics, the philosophy of mind, and the philosophy of language.

2) Michael Bowers, J. "Language Acquisition Device." *Encyclopedia of Human Development.* SAGE Publications, Inc.

3) Candlish, Stewart and George Wrisley. 2014. *The Stanford Encyclopedia of Philosophy*. Private Language., edited by Edward N.

> Wittgenstein wondered whether it is possible to create a language that solely describes subjective, 'private', experiences

First of all, let us explore the discrepancy between our experiences and language. Language is the tool used by human beings to translate subjective experiences into representative sounds and other signs that allow other people to understand these experiences. Ludwig Wittgenstein referred to the practice of language as a "language game" (2). He states that expressions of spoken language are governed by public guidelines so that they are 'correctly' used to be compatible for the masses. Hence, speaking a language means to play a 'game' with its own rules and norms. An individual can use these to decrypt the spoken words. The meaning of certain words is thus highly context dependent. Here, it is not possible to determine if the linguistic schemas are right or wrong, because the only thing we can say with certainty is that these guidelines serve the needs of the group, of the public. But why do we understand each other? We grow up learning how to associate, for example, a behavior or an emotion with words. Wittgenstein refers to the social context in which language is used as "forms of life" (4). With the course of human development, various different languages have evolved and within those languages accents and dialects have arisen.

Avram Noam Chomsky (born 1928) is an American linguist, philosopher, cognitive scientist, logician, political commentator and social justice activist. Suggested work: New Horizons in the Study of Language and Mind (1968) Cambridge University Press.

4) SparkNotes, Editors. "SparkNote on Ludwig Wittgenstein (1889–1951)." *SparkNotesLLC*, accessed February 5, 2015, http://www.sparknotes.com/philosophy/wittgenstein.

However, the overarching social guidelines of languages are maintained in communities. Through education we are taught how to properly use language including its grammatical structure, pronunciation and the correct use of vocabulary. But how far does language go? What do we actually represent with the spoken word? An example of the limitations of language is the beetle-in-the box analogy posed by Wittgenstein (4); imagine everyone having a small box in which they keep a beetle. However, nobody is allowed to look into the other boxes to see the other beetles. Over time, the word beetle represents what is in every one of the boxes. The beetle in this example is very much like the human mind. No one can know exactly how someone else perceives the world (looking into another box). Nonetheless, we pragmatically assume that the mental states of others are similar to our own. However, it does not actually matter what is in the box or whether everyone has a beetle as we have no possibility of checking – essentially, the term 'beetle' can only ever mean 'what is in the box' (what is in our head).

To clarify the natural limitations of language, Wittgenstein discusses the experience of feeling pain (4). This problem is based on a simple fact: it is not possible for an individual to know if experiencing pain is a uniform feeling that is perceived equally by others. When people evaluate and judge if someone is in pain they do so by observing outward behavior. Subsequently, evaluating and judging if oneself is in pain is not a case of knowing but rather a conditioned response to an experience (e.g. by vicarious learning – learning through observation). On the basis of this argumentation, people tend to refer to Wittgenstein as being a behaviorist (a behaviorist typically believes that human psychology can be explained with behavioral patterns). In his writings, Wittgenstein postulates that if there were not to be any "pain-behavior", there would be no such thing as pain. The examples of the beetle-in-the-box and feeling pain have an important implication in common; that language functions according to shared norms, which have evolved through learning. What does this tell us about the possibility of a private language?

The presented arguments discard the notion of a private language that is capable of purely describing inner sensations, because there would be no criteria with which one could verify a correct usage (beetle-in-the-box problem). If you were to imagine yourself experiencing a sensation, to create a private language you would need a definition of this sensation. To establish this definition you would be in need of a criterion with which one can identify the same sensation if it appears again. You would therefore give this sensation a sign and write it down in your notebook. The meaning of this sign relies on your memory that has made some sort of a connection between the sign and your sensation. However, what happens if in your current situation you want to recall this sensation to create a criterion? There is simply no way to give evidence for a 'correct' recollection of a subjective experience because there is no overarching norm against which you can compare it. Your signs become whatever seems right to you and consequently, a private language would have no meaning (4).

Wittgenstein's account on a private language seems legitimate at first. We understand language because we were trained on the meaning of words in a social context. The meaning of language is not determined by a link between language and reality but by the manner in which we use words. Therefore, a private language is not possible, because we do not have a true 'norm' that can confirm inner experiences. A.J. Ayer criticizes this perspective. He posits that Wittgenstein overlooks the crucial fact that everyone's language will sooner or later depend on subjective performing. This is what he calls "primary recognition" (the raw subjective feeling towards an object or an experience) (1). Hence, confirmation or validation of sensations or experiences does not make any sense in so far as we will always have to rely on our individual current sensations as the sole confirmation. Coming back to the example of pain, Ayer discredits Wittgenstein's belief that it is not possible to learn or teach the association between a word and a sensation if it is not outwardly manifested. Ayer argues that a reference between a word and a mental state (pain) is the same as a reference between a word and a sensory perception (seeing a cup of tea). There is simply no way to verify a mental state, nor a sensory perception. Specifically, Ayer's critique here is Wittgenstein's use of the notion of "private" experiences. Following Wittgenstein's ideas, an external object (e.g. a cup of tea) is said to be "public" because there is sufficient agreement upon its characteristics and it is assumed that it is perceived as the same object.

Sir Alfred Jules "Freddie" Ayer (1919 – 1989) was a British philosopher known for his promotion of logical positivism, particularly in his books Language, Truth, and Logic and The Problem of Knowledge. Suggested work: Wittgenstein (1968) University of Chicago Press.

On the other hand, a mental, inner state (e.g. pain) does not have this consensus, making it "private". However, in both cases, the meaning we attach to a word referring to either an external or internal perception or experience is subjective.

From a psychological perspective, the idea of vicarious learning seems intuitive when it comes to making an association between a certain sensation and behavior. This is part of our development, which leads to the fact that we will always compare our sensation-behavior relationship with those of others and use language accordingly. However, is this a valid argument against a private language? Wittgenstein's account on pain implies that our behavior is in line with a certain mental state. However, we have no reason to be sure that the manner in which someone behaves is a guarantee of a psychological, inner state. To create a private language, Wittgenstein asserts that one would need a criterion, a norm to be able to recall a certain subjective sensation. Be that as it may, could not the norm itself be subjective? Evidently, one would have to consider the idea that the culmination of memories of an association, between an emotion and a sign referring to that emotion, would be the same as the consensus over the description of a physical object. In other words, one would simply check one memory with another memory. Wittgenstein considers this idea and explains that this would be like "buying several copies of the morning paper to assure himself that what it said was true" (1). As intriguing as this analogy might be, is asking someone if this person perceives an object the same way as you do any more than that? Using Wittgenstein's beetle-in-the-box example, it is possible to come to a conclusion that admittedly leaves us with more unanswered questions than before discussing this subject. The box in which there may or may not be a beetle – or a mind that may or may not refer to something, is a matter of uncertainty and utter subjectivity. Essentially, Wittgenstein's account on a private language is invalid at its starting point, because we cannot make a distinction between norms of public language as we know it, or a potential private language. As long as we do not know any more about the presence of other minds outside of our own, we are stuck with the question; what is consciousness?

Ayer leans back and adds: "Sir, unless your eyesight is hindered, unless you cannot identify the symbols on the timetable at the train station, you will be no better off asking other people. Frankly, Sir, how would you even know if they perceive the timetable the same way you do?"… Wittgenstein hesitates and maintains a frown of disbelief. His eyes wander around the table and then finally stop. After having stared at his cup of tea for a while he looks at Ayer and asks: "Does your tea taste as sweet as mine today?"

The box in which there may or may not be a beetle – or a mind that may or may not refer to something, is a matter of uncertainty and utter subjectivity.

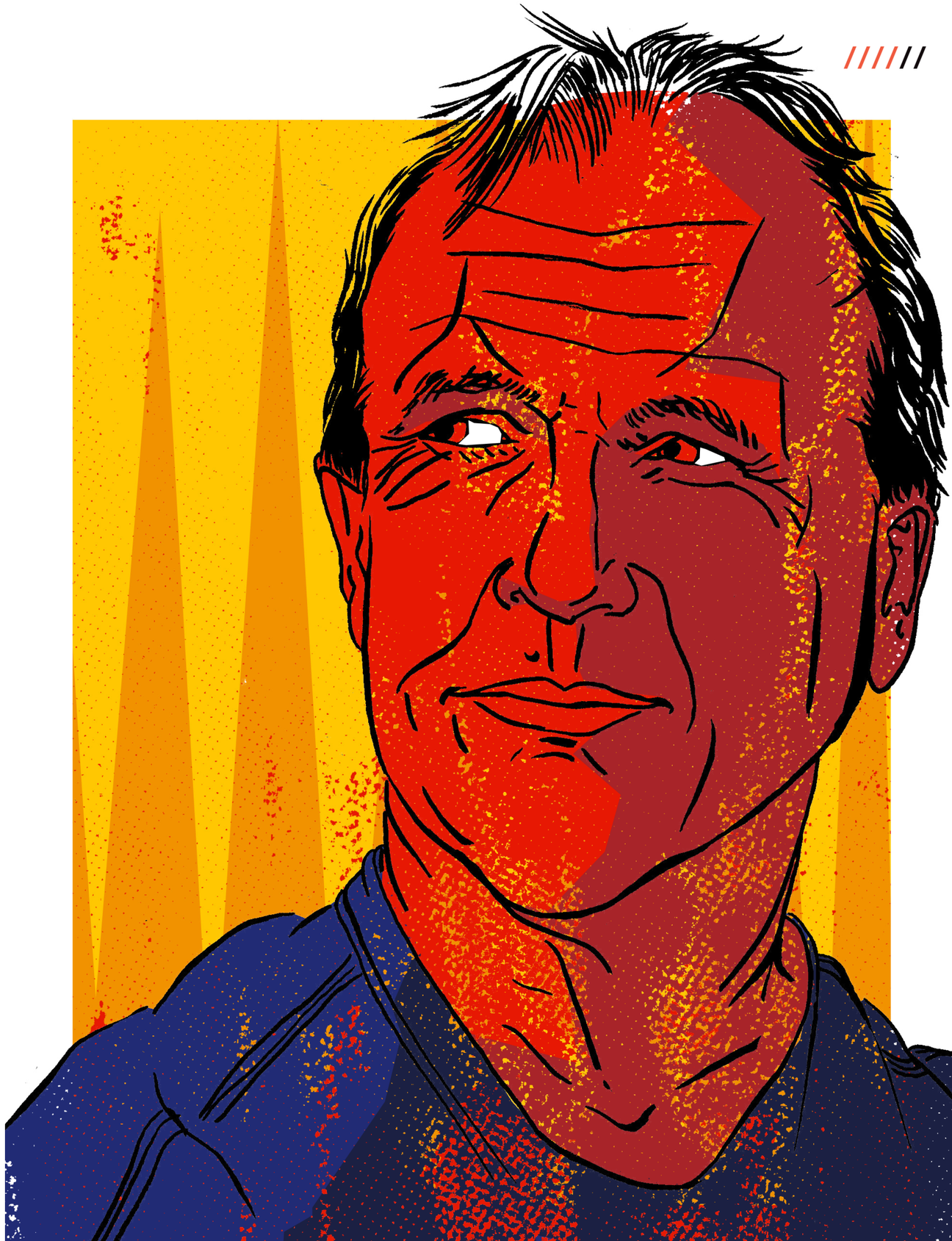
Filling in the Gaps with Science

Interview with Michael Shermer

Airi Yamada & Shira Lando

Michael Shermer is the editor-in-chief of *Skeptic* magazine, and a *New York Times* best-selling author of books such as *Why People Believe Weird Things* and *The Believing Brain*. Debunking various myths, superstitions, conspiracy theories and other pseudoscientific claims, Shermer has given an unprecedented three major TED talks and is a monthly columnist for *Scientific American*. His most recent book is *The Moral Arc*, released this year in January.

> "I'm more of a science guy than a philosophy guy... at some point you have to come in contact with the real world and see what's really there."



Michael Shermer, founder of *The Skeptics Society*, believes that we can never know the absolute truth. But what *kind* of truth can we discover, and what is *really* there?

In the United States, where 83% of its citizens identify themselves as Christian, Shermer grew up in a non-religious family. He claims, however, that he used to be religious for several years in high school and college – that is, until he began studying science, anthropology, social psychology and most of all, other religions – in graduate school. "It was pretty revealing in terms of putting my own beliefs into perspective," he says. "You meet these guys who believe in something completely different than you do, and they're just as convinced they're right as you are ... what are the chances you got it right?"

This marked the beginning of Shermer's initiative in investigating pseudoscientific and supernatural claims, all of which tended not to be based on empirical evidence. He illustrates how the human mind may often rush to reach hasty conclusions based on limited evidence. "It's too easy to take yourself down some path you know, that if this is true and if this is true... then this has to be true!" Indeed, a claim may appear to be true according to logical reasoning: the typical "if-then" statement showing a presumed cause and effect relationship. "But wait a minute," continues Shermer. "We actually don't know about all these propositions in the first place, so the whole thing may be wrong. "Logic and philosophy, according to Shermer, cannot exist by themselves. "You need reason and empiricism," he says. "You need both."

Time to Grow Up

Religion, in many parts of the world, is a thick root set deeply underground; a way of life that organizes people's habits, values and cultures. Growing up with such an influence, it is remarkably easy to accept it as the truth and to not question its nature. Religion shapes identity – of both individuals and groups – and forms a functioning community."But people have been doing that for eons before religions were invented," points out Shermer. "They developed their own means of solving conflicts, getting along and having social groups and cohesion in a meaningful way without religion." In Shermer's eyes, religion is a transition phase; an intermediate stage that helped us transition from hunter-gatherer tribesmen to the civilized beings of today. "As population numbers grew, there had to be some sort of social technology for getting people to get along and solve conflicts. But we're past that now. We know how to do this through modern governments and legal systems, courts, jurisprudence and so on... this is a much better way than the old religious ways." However, in some countries, such as India, religion is so strongly embedded in society that removing it would lead to a loss of local culture and tradition. Shermer admits that this transition from a religious society to a non-religious one indeed takes time. The first step would be to elevate the social and economic status of the citizens. There are exceptions to this, but in general, people become less religious as they get educated and prosperous. And that's a good thing, a good first step."

Our society is constantly evolving, and each era presents us with a new challenge that we have to answer with a new system. The era of religion helped us develop, preparing us for a growing society. In the same way, perhaps an era of government systems would help us lead efficient lives in an ever-changing society. "It's time to grow up," Shermer says.

"Few people rely on religion to explain the tides, for example."

I say there's no such thing as the supernatural or the paranormal. They're just the natural and the normal with the stuff we haven't yet explained – with natural, normal explanations.

Filling in the Gaps

"Few people rely on religion to explain the tides, for example. The moon phases, the weather, the climate, or disease. You just don't need it [religion] anymore." As Shermer says, the role of religion as an explanatory mechanism has been significantly reduced as more and more scientific evidence came to light providing answers to questions. "They were all gaps that hadn't been filled," he says. "And that's where science came in." What's been happening for centuries now, is that these "gaps" in knowledge are gradually closing, becoming smaller and dwindling in numbers. Religion is becoming a mere lifestyle. "Even things like spirituality – it's now also a branch of neuroscience," Shermer adds. As scientific knowledge advances overtime, Shermer foresees a world free of supernatural beliefs and conspiracy theories. Never completely free, but their role largely minimized. In the United States however, his thoughts are met with frequent doubt. "The homeschooling movement is pretty big there," Shermer says. "The whole point of that is to avoid being exposed to counter-ideas. And that's not good at all."

Closed-mindedness and intolerance are undeniably huge hurdles to overcome. It is a difficult and even grudging task to come to terms with something you do not believe, no matter how convincing the evidence may be. The most useful tools to achieve acceptance, therefore, seem to be knowledge and experience."That's why college is good, travelling is good, reading is good," says Shermer

"I say there's no such thing as the supernatural or the paranormal. They're just the natural and the normal with the stuff we haven't yet explained – with natural, normal explanations."

Science is a Story

Where does the universe come from? How did we get here? When did life start? How did diversity come about? Who are we, as a species? Why do we exist? The list of existential questions is endless. However, we do have answers to most of these questions now – in the big format. "Science is a story based on reality; something you can find out," says Shermer. "It has the added advantage of also possibly being true. It's a narrative. An account of where we came from, who we are, where we're going." What's also important is the way in which these stories are told. Good scientific writing, Shermer believes, has to be compelling. "Telling the story in a compelling way is a form of literature, of high literature," he says. "At least it should be. Good science writing should be a grand narrative arc."

Into the Unknown

As convincing as reason and science may be, it is true that many are still fascinated by the unknown. In fact, Shermer himself likes going there from time to time. "Well, I also like solving problems like anybody else," he says. "The unknown is just a compelling place to go to explore." The point is not to find meaning in the unknown, but to find out whether there actually is meaning or not. "It's the search that's compelling," Shermer says. "And science does that more than anything else. It's as basic as searching for food or for mates, or searching for a place to live. I actually think it's an evolved capacity we have. Going into the unknown is scary, but you might get something, so it's exciting. It's invigorating."

All the superstitions, myths and conspiracies – all of the gaps that are supposedly yet unfilled – are necessary for science to thrive. Without them, scientific investigation will become a monotonous endeavor. Because the unknown exists, science, in turn, exists to discover the unknown. The gaps we have in our world are precisely what drives us to search for a reasonable truth; a truth that is empirical, if not absolute.

Harder, Better, Faster, Weaker

How Sleepiness is Becoming a Disorder

Martijn Blikmans: Psychology & Philosophy

Today's society is bustling, exemplified by supermarkets, gyms, factories and even scientific laboratories (1) that are open 24 hours a day, seven days a week. Around the clock, we are able to produce and to socialize, and we choose to do so. And sometimes, our choice of producing and achieving can have fatal consequences. In 2013, *The Guardian* (2) reported on the death of Moritz Erhardt. This 21-year-old *Merril Lynch* intern died after working for at least 72 hours on end, only going home for short amounts of time to take a shower and change clothes. This ritual has been called the "magic roundabout", as taxi drivers bring home the interns, wait while they quickly freshen up, and then bring them back to the bank. And while the case of Moritz Erhardt may be seen as an extreme one, the newspaper article also states that this kind of behaviour is not uncommon among bank interns. Moreover, not only interns in the banking world face the potential risk of death by not getting enough rest. In 2007, *The Economist* (3) wrote a piece on the Japanese phenomenon called *karoshi*: death by overwork. In the article, the story of Kenichi Uchino is used as example. This Toyota employee died after putting in more than 80 hours of overtime every month, for the last six months. Mr. Uchino was not alone in his excessive overwork. According to some statistics, so the authors write, one in three Japanese men between 30 and 40 work over 60 hours a week. Moreover, workers often do not get paid for working overtime. Apparently, in both Britain and Japan, some people see their work as more important than their own health and happiness.

1) Ledford, Heidi. 'Work ethic: The 24/7 lab', *Nature*. Last modified August 31, 2011. Accessed February 24, 2015. http://www.nature.com/news/2011/110831/full/477020a.html

2) Day, Elizabeth. 'Moritz Erhardt: the tragic death of a City intern.' *The Guardian*. Last modified October 5, 2013. Accessed May 1, 2015. http://www.theguardian.com/business/2013/oct/05/moritz-erhardt-internship-banking

3) 'Death by overwork in Japan: Jobs for life.' *The Economist*. Last modified December 19, 2007. Accessed May 1, 2015. http://www.economist.com/node/10329261

This choice of being awake longer and sleeping less can be seen as one of the consequences of living in a so-called neoliberal society. Neoliberalism is characterized by biological optimization and choice, and, combing the two aspects, the most important of all choices, is our choice to be successful. The drive for biological optimization is the result of several factors. One of these factors is a basic drive for optimization. As noted in many textbooks describing the psychology of the self, one of the basic human motives regarding the self is the need for improvement (4). This means that we are constantly trying to become a better person: we want to be happy, safe and healthy. Another factor is that at the end of the twentieth century, this drive for optimization has mixed with new technological advancements. As Rinie van Est (5) puts it, we have gone through a revolution. This revolution, the information revolution, has made us aware of the malleability of the human body and brain. As Nikolas Rose (6) aptly describes in the introduction to his book *The Politics of Life Itself*, through the technological and scientific advancements in fields such as genetics, we can now optimize the smallest parts of our being. This technological advancement seems to make it possible to reach the final level of self-improvement. However, as better detection technologies are developed and medical advances in treatment continue, what it means to be healthy is in a constant shift away from us. This is a result of the concomitant finding of more and more 'defects' we subsequently call illnesses (7). Furthermore, even if we were ever to reach that elusive perfect level of health, we are still not done, as being healthy is not a constant. We must maintain a healthy lifestyle to stay on that level, until a new technology again changes the definition of health. The final important factor with regards to this biological optimization is the fact that it has not gone unnoticed by governments and organizations. As Rose states in his book (6), bioeconomies, with their own biocapital, are now taking shape. Thus, as health is considered one of the most important predictors of productivity and profit, organizations are looking more and more for the fittest and healthiest people. Consequently, due to technological advancements, the personal drive for optimization and the competitive market favouring health, people in a neoliberal society are looking for ways to combat their biological limitations, defined as illnesses, to optimize themselves.

One in three Japanese men between 30 and 40 work over 60 hours a week

4) Fiske, Susan T. and Shelley E. Taylor. 'Self in Social Cognition.' In *Social Cognition: from brains to culture*, edited by Micheal Carmichael, 119 – 148. Los Angeles: SAGE publications Ltd., 2013.

5) Van Est, Rinie. 'Wat hebben de laboratorie voor ons in petto?' *De Groene Amsterdammer*, October 2012, 26 – 29.

6) Rose, Nikolas. Introduction to *Politics of Life Itself: Biomedicine, Power and Subjectivity in the Twenty-First Century*, edited by Nikolas Rose. Princeton: Princeton University Press, 2006.

7) Lupton, Deborah. 2013. Quantifying the body: monitoring and measuring health in the age of mHealth technologies. *Critical Public Health* 23, no. 4 : 393 – 403.

The second defining feature of a neoliberal society is choice. As Alain de Botton explains in his TED talk (8), success in today's society is seen more and more as a choice. However, being able to choose our own success also means that we are responsible if we fail. Combining the two features, we see that people are constantly striving to become better to satisfy their need for optimization and answer the demands of the competitive market. Furthermore, as much as succeeding is seen as a personal choice, so is failing to optimize. This further motivates a person to become as good as he or she is able to.

8) De Botton, Alain. 'Alain de Botton: A kinder, gentler philosophy of success.' *YouTube* video, 16:51, July 28, 2009, https://www.youtube.com/watch?v=MtSE4rglxbY

In this article, I outline how sleep has become more and more an option in today's neoliberal society instead of a need, how we choose to avoid it by using new technologies such as pharmaceuticals and why this is problematic. Specifically, I introduce and explain the notions of reification and Michel Foucault's power-knowledge relations, in order to explain how our choice to sleep less is seen as a personal choice to become a better, more productive person, that can deal with the stresses of a 24-hour society.

The Need for Reification

Shift work (sleep) disorder (SWD) is characterized by excessive sleepiness during work hours that overlap with traditional sleeping periodes. In this article, it is considered the reification of the natural need for sleep, not as a true disorder.

In their publication on the drug *Provigil*, a wakefulness-promoting drug, Williams et al. (9) examined the British media's coverage of the drug in the years between 1998 and 2006. *Provigil*, the brand name for the drug *Modafinil*, was developed by the pharmaceutical company *Cephalon* to help sufferers of narcolepsy combat their excessive bouts of sleepiness. Later on, it was also used to help people suffering from obstructive sleep apnoea and 'shift work sleep disorder'. The media's coverage of the drug in the medical field was mostly positive, but its coverage wasn't limited to just the medical uses of the drug. They also covered usage of the drug in the domains of lifestyle management, the military and sporting competitions. Perhaps not surprisingly, the use of the wakefulness-promoting drug in non-medical situations was met with apprehension, and the media particularly warned against how this drug could be abused and be given to healthy people who were 'forced' to sleep less than normal. Clearly, in the eyes of the journalists, these drugs should not be used to enable people to sleep less in order to socialize or work. However, in comparison to the media´s positive opinion on the usage of the drug in case of 'shift work sleep disorder' this seems paradoxical. Let me explain why.

9) Williams, Simon J., Clive Seale, Sharon Boden, Pam Lowe, and Deborah L. Steinberg. 2008. Waking up to sleepiness: Modafinil, the media and the pharmaceuticalisation of everyday/night life. *Sociology of Health and Illness* 30, no. 6 : 839 – 855.

As can be read on the website for the drug *Nuvigil* (10), a drug with a similar profile as *Provigil*, also produced by *Cephalon*, "shift work disorder (SWD) is a medical condition that can be diagnosed and treated by a doctor". The page goes on to explain that people experiencing excessive sleepiness during non-traditional work hours could be suffering from this disorder. People that do experience excessive sleepiness are then instructed to ask their doctors about SWD and *Nuvigil*, as it can help them deal with their sleepiness. However, the page notes, while it may suppress sleepiness, *Nuvigil* cannot cure you from SWD. What we see here is the aforementioned paradox. People who are 'forced' to sleep less than normal can take pills to remain awake, because the need for sleep is turned into a medical disorder. By doing so, the media's critical response to this practice is negated.

10) 'About Shift Work Disorder.' *Nuvigil*. Accessed February 24, 2015. http://nuvigil.com/swd/aboutswd.aspx

Sleep has become more and more an option in today's neoliberal society instead of a need.

The invention of SWD is an act of reifying the need for sleep into a disorder. Reification, Latin for 'making into a thing', is the act of turning something abstract, such as a definition or collection of symptoms, into a concrete, independent entity that can influence ourselves and others. The entity can then be seen as the thing producing the original abstraction. This is often what happens to psychiatric diagnoses, such as when people say that their ADHD makes them inattentive (11), even though, in essence, ADHD is nothing more than a medical definition given to a cluster of characteristics such as lack of attention and too much activity. Here, being sleepy is turned into SWD. SWD, in turn, is considered the entity that produces the sleepiness. By reifying the need for sleep into SWD, suddenly the person that needs sleep is sick and should therefore use medication to return back to the 'healthy' standard of working non-traditional work hours.

11) Dehue, Trudy. 'Inleiding: onenigheid over falen en verdriet.' *In Betere mensen: over gezondheid als keuze en koopwaar*, 13 – 40. Amsterdam: uitgeverij Augusts, 2014.

The Personal Quest to Lose Sleep

As noted above, in a neoliberal society, most people are constantly striving to succeed, since failure is seen as a personal choice. As the articles in *The Guardian* (2) and *The Economist* (3) show, this strive for success is seen in both Western (Britain) and Eastern (Japan) societies. An article on the (ab)use of ADHD medication as a study drug (12) shows us that in the United States this drive to succeed is also present. It thus seems that neoliberalism is a wide-spread phenomenon in the twenty-first century.

12) Levinson, Jack and Kelly McKinney. 2013. Consuming and edge: ADHD, stimulant use, and psy culture at the corporate university. *Transcultural Psychiatry* 50, no. 3: 371 – 396.

Panoptic power relations can only occur if there is freedom of choice in a relationship.

By reifying the need for sleep into SWD, it is not hard to imagine how people could use this diagnosis as a scapegoat to explain their failure of not being able to function in a 24-hour society. However, as noted earlier, this is not the course of action people usually take. Instead of admitting failure, many turn to medication such as *Nuvigil* or *Provigil* (9). People seem to make it their personal quest to defy their natural tendency to sleep in order to fulfil the demands that society puts on them. Particularly revealing in this case is the reaction of Hans-Georg Erhardt, the father of Moritz Erhardt, in the article by *The Guardian* (2). He tells the reporters that he does not blame *Merrill Lynch* for the death of his son, and, perhaps most strikingly, that the only anger he could potentially feel was towards his son, as he neglected to take care of himself. The bank, whose standards are incredibly high and indirectly forces interns to take part in the "magic roundabout" in order to have a chance of getting a job offer, is left unblamed. Moritz's unhealthy lifestyle is thus seen as a personal choice.

Michel Foucault's work on subjectivity and power (13) can be used to understand why people are driven to tackle SWD instead of using it to justify not being able to work untraditional hours. In his work on the self, Foucault describes the self as both a product of its political and historical situation and as an independent entity that must fight the pressures of these norms. These two views of the self are often seen as contradictory (15). However, others believe that these two views are compatible (14). Especially according to Allen (14), Foucault means that the self is not merely a product of historical and political events, but rather, that the development of the self is limited by these norms and values; development is guided by them. This relation may explain why people go through so much effort to try and handle societal pressures (taking ADHD medication to get through exam periods (11:12) or the illicit use of anxiety medication among students (16)). Instead of just giving up, norms and values are incorporated into the self and failing to live up to a social norm would thus mean failing a personal norm, which most people consider even worse than failing a social norm. As is often noted in psychological literature, one of the other basic needs of humans is the need for self-enhancement, meaning that we strive to maintain a positive image of ourselves (4). Because the social norm has become personal, this internal drive motivates us to follow that norm closely.

Michel Foucault (1926 – 1684) was a twentieth century philosopher. In his early days, he was mostly busy with a so-called genealogical analysis of docile bodies in which he argued that the self was nothing more than a product of political decisions and social norms. The later Foucault was considered more nuanced. His later books and articles revolve around the notions of subjectivity and resistance. In those works, he champions a reflective and autonomous self, that has to fight the societal pressures of categorization and the transformative effects this categorization has (14).

13) Verhoeff, Berend. 'Michel Foucault voorbij de antipsychiatrie: macht, vrijheid en de mens in de maak.' In *Handboek Psychiatrie en Filosofie*, edited by Gerben Meijnen & Damiaan Denys, 69 – 83. Utrecht: De Tijdstroom, 2011.

14) Allen, Amy. 2011. Foucault and the politics of our selves. *History of the Human Sciences* 24, no. 4 : 43 -59.

15) Paras, Eric. *Foucault 2.0: Beyond Power and Knowledge*. New York: Other Press, 2006.

16) McCabe, Sean E., Carol J. Boyd, and Christian J. Teter. 2006. Medical Use, Illicit Use and Diversion of Abusable Prescription Drugs. *The Journal of American College Health* 54, no. 5 : 269 – 278.

To fully understand the effect a SWD diagnosis has on people, we must also understand why we have started managing ourselves according to social norms and how and why certain norms are imposed on our person. To understand this issue, Foucault's notion of the panopticon (13) is useful. The panopticon is a an idea for a prison design, were the cells are arranged around a central watchtower. The guards could look at the prisoners, who on their turn would not able to see guards on top of the tower. As prisoners had no clear way of knowing when they were being monitored, they would engage in self-management. Out of fear of punishment, if they were caught by this 'faceless gaze' while breaking the norms, they followed the norms laid out by the prison staff. In modern prisons designs a panopticon design is still sometimes used, but the more modern equivalent involves the omnipresent security camera. In our social life, the 'faceless gaze' is produced by other people (not guards), namely our doctors, bosses, friends and family. We are expected to follow the norms that are imposed on us in order to reduce the possibility of social scorn. If we follow the norms long enough, it is not unthinkable to see how these begin to form our identity, leading us to personally wanting to follow them, even if social scorn would not be a concern anymore.

The second issue, concerning how certain norms are imposed on us, can be explained using Foucault's notion of power-knowledge. According to Foucault, panoptic power is inseparably connected to knowledge. Placing others and ourselves under panoptic control gives us the option of studying others and ourselves, which produces new knowledge. However, and more importantly for our discussion, knowledge can also be used for further control. In his paper on the production of the psychiatric subject , Marc Roberts (17) explains how these mechanisms can be understood in the context of psychiatric care. He uses the diagnosis of schizophrenia to illustrate his point. When people are given the diagnosis schizophrenia (thereby obtaining knowledge on who they are), they are directly placed in the category of schizophrenics, which has specific norms attached to it, such as taking medication and regularly visiting a psychiatrist. These norms are constantly enforced by the 'faceless gaze'. The schizophrenic patients must thus follow these norms in order to reduce scorn.

Foucault often called the self a subject. This subject was formed by the relevant norms and values of his time. The psychiatric subject is therefore the self of a person that is being formed by the relevant psychiatric norms and expectations, such as 'taking medication ' and 'needing help'.

17) Roberts, Marc. 2005. The production of the psychiatric subject: power, knowledge and Michel Foucault. *Nursing Philosophy* 6 : 33 – 42.

By not allowing others to categorize us, we can live a life according to our own expectations and standards.

Knowing this, we can now integrate SWD and Foucault's philosophy to come up with an example of how combating sleepiness in a 24-hour society has become a personal endeavour. After visiting a doctor, a shift worker returns home with the diagnosis SWD, the reified medical condition for the natural need for sleep. This diagnosis then turns the person into an ostensibly sick patient, who is closely being monitored by both his doctor and his family (the 'faceless gaze') to follow the imposed norms. These norms would include taking pills such as *Nuvigil* or *Provigil* to combat sleepiness during his working hours, which he does, in order to prevent social scorn and self-reproach. Eventually, his self-image changes to incorporate this 'patient identity'. Finally, following both his normal human need for self-enhancement and the wider neoliberal ideals of optimization and 'success is a choice', the person makes it his personal quest to never let sleepiness hinder him as he works through the night, fulfilling the demands of the 24-hour economy.

In Closing: Resisting the 'Shift Work Disorder Identity'

As both Allen (14) and Roberts (17) note, panoptic power relations can only occur if there is freedom of choice in a relationship. This means that people in a panoptic power relation have the freedom to choose and accept an identity and the related norms and expectations of that identity. In that regard, even if not accepting the identity would lead to social scorn, the identity is not forced on the person. This freedom of choice is crucial, as the norms and expectations will only become part of the self if the person personally accepts them and lives by them, not if he is forced to do so. And, following Foucault's philosophy, now that we have this knowledge, we also have the power to resist. The first step we must take in order to reclaim our freedom of sleep is to resist the notion of the 'shift work disorder identity'. As Marilyn Coors notes, the best practice of freedom is to "release oneself from one self" (18). This means that we must be aware of the power of categorization, and fight against this categorization process. Foucault called this "taking care of oneself" (18). By not allowing others to categorize us, we can live a life according to our own expectations and standards.

After doing so, I suggest directly attacking the term responsible for producing this 'one self': SWD. We should be aware where this diagnosis comes from, who conducted the research that led to its 'discovery', and perhaps most importantly, who paid for that research. We should also ask who is informing us about this disorder and how that person or company could benefit from widespread knowledge of it. Discovering the answers to these questions and acting appropriately against those that would exploit us if we were given the 'shift work disorder identity' would, I believe, give us back the needed freedom to sleep soundly through the night.

18) Coors, Marilyn E. 2003. A Foucauldian Foray Into The New Genetics. *Journal of Medical Humanities* 24, no. ¾ : 279 – 289.

For instance, the *Harvard Medical School Division of Sleep Medicine* notes on its website that it receives unrestricted educational grants from several corporations that produce medication for sleep disorders (19), including *Cephalon*. Furthermore, the website notes that one of the researchers who conducted several studies on SWD and *modafinil*, Charles Czeisler, has a lot of connections with pharmaceutical corporations, including Cephalon, and has received lecture or consulting fees and research grants from these companies.

19) 'Disclosures.' *Harvard Medical School of Sleep Medicine*. Accessed May 6, 2015. http://healthysleep.med.harvard.edu/need-sleep/disclosures

People in a neoliberal society are looking for ways to combat their biological limitations, defined as illnesses, to optimize themselves.

The Last Trip of Your Life

How Hallucinogens May Help the Dying

Marco Schlosser: Psychology

Medical advancement over the past decades has had a substantial impact on cancer treatment. The evolving knowledge of the pathophysiology of various types of cancer generated novel treatment procedures that have significantly prolonged the survival time of cancer patients. Arguably, treatment approaches for the psychological and spiritual crisis of advanced-stage cancer patients have not undergone a similar evolution (1). Facing their impending death, advanced-stage cancer patients often encounter intense psychological stress, manifesting itself as anxiety, depression and psychological isolation. Customarily, the patient's psychological needs have not been addressed appropriately by current medicine and available treatment options often failed to qualitatively enhance the dying patient's final months of life (2). In response to this clinical need, many studies were initiated, including a long-neglected area of investigation that witnessed a multidisciplinary revival: hallucinogen research. In the mid-20th century, hallucinogens sparked the interest of Western clinical psychiatry and thousands of research participants were acquired for basic scientific or therapeutic research that utilized the substances' psychoactive properties. During the late 1960s and early 1970s, hallucinogen research generated hundreds of publications (3, 4). Especially encouraging were investigations that administered LSD (Lysergic Acid Diethylamide), a semi-synthetic compound, and psilocybin (4-phos-phoryloxy-N,N-dimethyltryptamine), a naturally occurring alkaloid tryptamine, in order to lower existential fear and death anxiety in advanced-stage cancer patients (3, 5). Yet, controversy surrounding these potent mind-altering substances grew rapidly and was predominantly fuelled by political currents and sensationalism around the nonmedical abuse of LSD, which eventually culminated in the prohibition of hallucinogens in 1970 (6).

1) Breitbart, W., Gibson, C., Poppito, S. R., and Berg, A. 2004. Psychotherapeutic Interventions at the End of Life: A Focus on Meaning and Spirituality. *The Canadian Journal Of Psychiatry / La Revue Canadienne De Psychiatrie*, 49(6): 23-56.

2) Peleg-Oren, N., Sherer, M., and Soskolne, V. 2003. Effect of Gender on the Social and Psychological Adjustment of Cancer Patients. *Social Work In Health Care*, 37(3): 17-34.

3) Grof, S., Goodman, L., Kurland, A., and Richards, W. 1972. LSD-assisted psychotherapy and the human encounter with death. *Journal Of Transpersonal Psychology*, 4(2): 121-150.

4) Kast, E. 1967. Attenuation of Anticipation: a therapeutic use of lysergic acid diethylamide. *Psychiatric Quarterly*, 41(4): 646-657.

5) Grof, S. and Halifax, J. 1977. *The human encounter with death*. New York, NY England: E. P. Dutton.

6) Griffiths, R. R., Johnson, M. W., and Richards, W. A. 2008. Human hallucinogen research: Guidelines for safety. *Journal Of Psychopharmacology*, 22(6): 603-620.

The scientific community was not immune to the negative publicity; neuropharmacologists, psychiatrists and psychotherapists voicing discontent over their forcefully halted research were threatened with professional marginalization. Federal funds that had fueled hallucinogen research were withdrawn and additional regulatory obstacles were implemented (6). It took decades before the anxieties and fears surrounding these infamous substances receded enough to resume human studies. Recently, clinical studies have re-evaluated the potential of LSD and psilocybin for lowering death anxiety in advanced-stage cancer patients (7, 8). The current investigations build on the highly promising research reports accumulated during the mid-20th century (3). This article aims to analyze a) the physiological and psychological safety of these mind-altering compounds, b) their efficacy for the treatment of death anxiety, and c) the validity of recent studies that have administered either LSD or psilocybin.

The administration of hallucinogens in human subjects, as with other psychoactive substances, produces a unique pattern of physiological and psychological effects. Appropriate safety procedures are required to allow researchers to quickly respond to potential risks. In the case of LSD and psilocybin, the physiological safety concerns are relatively modest. The physiological toxicity for high doses of both compounds is low and substance safety studies do not indicate organ damage or neuropsychological deficits (6). Mild physiological symptoms arising during hallucinogen usage may include blurred vision, dilated pupils, nausea, increased pulse, dizziness and tremors (9). Yet, these somatic reactions triggered by high doses of hallucinogens are, relative to the intense psychological responses that accompany them, rather unremarkable (10). Studies involving cancer patients showed no significant difference in physiological effects compared to healthy participants. Some cancer patients experienced several additional symptoms during controlled hallucinogen experiments, but these symptoms had already been observed and linked to their diseases before the administration of the hallucinogen (11).

However, while hallucinogens can be categorized as physiologically safe, the psychological risks are higher and more complex. A spectrum of psychological adverse reactions to high doses of hallucinogens has become widely known as a 'bad trip'. A 'bad trip' is the most commonly encountered psychological risk profile and is associated with anxiety, fear, panic and intense paranoia. These negative responses can potentially manifest on several psychological dimensions: somatic (e.g. distressing hyper-alertness towards the body), sensory (e.g.daunting delusions), personal and metaphysical (e.g. frightening thoughts about oneself and one's place in the universe). Overwhelming feelings of fear and paranoia can trigger erratic behaviour. Moreover, troubling psychological states induced by hallucinogens have led some individuals to act out aggressively (12). In some cases, though extremely rarely, suicidal thoughts arose (6). Another risk associated with the administration of hallucinogens is the potential for provoking psychotic episodes, lasting from a few days to several months. Trying to determine causation has been unfruitful. The research data cannot reveal if susceptible individuals would have never experienced a psychotic episode without the administration of hallucinogens, nor if these psychotic reactions were early symptoms of a premorbid psychological illness that would have manifested itself inevitably (12).

During the late 1960s and early 1970s, hallucinogen research generated hundreds of publications.

Nonetheless, many researchers have acknowledged that the consumption of high doses of hallucinogens only rarely produces extreme behaviours such as violence or self-harm, even when the conditions did not match current scientific safety protocols (i.e. when consumption occurred in unsupervised settings and by unprepared individuals) (6). For example, Cohen (1960) (13), who administered LSD to 1200 participants (non-patients), recorded only one case with psychotic effects that lasted more than 48 hours. Notably, this participant's monozygotic twin had been diagnosed with schizophrenia, which, by today's research safety standards, would be a criterion for exclusion in hallucinogen studies. Furthermore, a clear causal relationship between hallucinogen action and suicide attempts could not be established within a therapeutic setting. These data might not translate to non-medical, recreational use that takes place outside a supervised environment. However, a recent survey of 135,095 randomly selected US adults could not establish a link between hallucinogen use and suicidal behaviour (14). Hallucinogens do not evoke compulsive behaviour in their users and are, therefore, not categorized as drugs of dependence (15). In laboratory animals, classical hallucinogens fail to trigger reliable self-administration patterns (16). Additionally, LSD and psilocybin have not been found to cause withdrawal syndromes (6). It is of great importance to me not to portray an unrealistic view of the risks of hallucinogens. Even though prolonged distress and associated adverse behaviours (e.g. suicide attempts, psychotic episodes) are extremely rarely observed within a research context, their infrequent occurrence should nevertheless be met with respect and stringent research conditions to maximize participants' safety.

While hallucinogens can be categorized as physiologically safe, the psychological risks are higher and more complex.

Throughout recent years, studies have suggested that the psychological and spiritual needs of cancer patients facing their impending death should be addressed more actively (1). The existential crisis of this patient population is associated with anxiety, isolation, despair and depression. A substantial number of advanced-stage cancer patients do not respond effectively to conventional therapeutic treatment methods. Frequently, cancer patients deal with their anxiety by using anxiolytics, opiates and alcohol. To achieve and sustain these substances' desired effects, they have to be taken regularly (and in many cases daily). In contrast, hallucinogen-assisted psychotherapy aims to induce the desired therapeutic effects by integrating only a single (or very few) pharmacological intervention(s) into the on-going psychotherapeutic process (7, 8). Before the early 1970s, clinical studies administered hallucinogens to more than 200 cancer patients and a large number of studies suggested hallucinogens' positive and sustained impact on anxiety levels (4, 17). It should be mentioned, however, that the surge of research during these early days of clinical neuropharmacology often lacked today's rigorous research requirements. Many researchers reported anecdotal accounts and overemphasized results from case studies instead of conducting controlled experimental research (8). Furthermore, the then-insufficient understanding of the neuropharmacological foundations of hallucinogens and their effects on the human brain complicated interpretation of the accumulated data (6). The methodologies for utilizing hallucinogens were often substantially different between studies and impeded necessary comparisons. Consequently, many study results, though promising, were inconclusive. Therefore, this current article focuses on evidence obtained by recent and more methodologically stringent studies that administered hallucinogens.

7) Gasser, P., Holstein, D., Michel, Y., Doblin, R., Yazar-Klosinski, B., Passie, T., and Brenneisen R. 2014. Safety and Efficacy of Lysergic Acid Diethylamide-Assisted Psychotherapy for Anxiety Associated With Life-threatening Diseases. *Journal of Nervous and Mental Diseases*, 1-8.

8) Grob, C. S., Danforth, A. L., Chopra, G. S., Hagerty, M., McKay, C. R., Halberstadt, A. L., and Greer, G. R. 2011. Pilot study of psilocybin treatment for anxiety in patients with advanced-stage cancer. *Archives Of General Psychiatry*, 68(1): 71-78.

9) Nichols, D. E. 2004. Hallucinogens. *Pharmacological Therapeutics*, 101(2): 131-181.

10) Metzner, R. 2004. Introduction: Visionary Mushrooms of the Americas. *Sacred Mushroom of Visions: Teonanacatl*, 1-48. Rochester: Park Street Press.

11) Kurland, A. A. 1985. LSD in the supportive care of the terminally ill cancer patient. *Journal Of Psychoactive Drugs*, 17(4): 279-290.

12) Strassman, R. J. 1984. Adverse reactions to psychedelic drugs: A review of the literature. *Journal Of Nervous And Mental Disease*, 172(10): 577-595.

13) Cohen, S. 1960. Lysergic acid diethylamide: Side Effects and Complications. *Journal of Nervous and Mental Disease*, 130(1): 30-40.

14) Johansen, P. Ø., and Krebs, T. S. 2015. Psychedelics not linked to mental health problems or suicidal behavior: A population study. *Journal of Psychopharmacology*.

15) Baumeister, D., Barnes, G., Giaroli, G., and Tracy, D. 2014. Classical hallucinogens as antidepressants? A review of pharmacodynamics and putative clinical roles. *Therapeutic Advances in Psychopharmacology*, 14(3): 1-14.

16) Poling A. and Bryceland J. 1979. Voluntary drug self-administration by nonhumans: a review. *J Psychedelic Drugs*, 11(3): 185-90.

17) Pahnke, W. N. 1970. The psychedelic mystical experience in the human encounter with death. *Psychedelic Review*, (11): 3-20.

The last decade witnessed only two published clinical studies that specifically investigated hallucinogens' efficacy in treating death anxiety secondary to terminal cancer. Grob et al. (2011) (8) administered psilocybin to twelve patients with advanced-stage cancer at the Harbour-UCLA Medical Center. The psilocybin sessions, which lasted 8 hours, were not part of an on-going psychotherapy schedule, but represented a single pharmacological intervention. Participants met the DSM-5 criteria for generalized anxiety disorder or anxiety disorder due to cancer. A placebo-controlled, double-blind and within-subject design was utilized. Participants took part in two treatment sessions in which they received a niacin placebo, which causes mild reactions (e.g. flushing), on one occasion, and a moderate dose of psilocybin on the other (0.2 mg/kg of bodyweight). The researchers assessed depression and anxiety using the Beck Depression Inventory (BDI) and the State-Trait Anxiety Inventory (STAI) , respectively. Measurements were collected before the treatment sessions and at 1-month, 3-months and 6-months after the intervention. During the sessions, subjective experience was recorded and safety monitored. Psychological or physiological adverse reactions during and after the administration of psilocybin did not arise. The BDI indicated a significant improvement of depression levels at the 6-months follow-up. The levels of anxiety showed a significant decrease at the 1-month follow up ($p=0.001$) and were still significant six months after the active treatment session. Considering that only a single dose of the active compound had been administered, these effects seem quite remarkable. By the time Grob et al.'s paper was submitted, 10 out of 12 participants had died.

The STAI measures two types of anxiety; state and trait anxiety. State anxiety refers to how a person is feeling at the time of a perceived threat and is considered temporary. Trait anxiety, on the other hand, is the anxiety one feels across typical situations that everyone experiences on a daily basis.

Many researchers reported anecdotal accounts and overemphasized results from case studies.

Very recently, LSD has been utilized as a therapeutic tool complementing psychotherapy (7). Gasser et al.'s (2014) study is the first to use LSD as an adjunct to psychotherapy in more than 40 years. Of the 70 participants (all advanced-stage cancer patients) who were first screened, only 12 were eligible to participate according to the strict safety protocol (as put forward by the Multidisciplinary Association for Psychedelic Studies). All 12 participants received several months of therapy that started with drug-free treatment sessions to prepare participants for two LSD interventions. These were scheduled two to three weeks apart, and were followed up by additional drug-free therapy sessions to integrate the experiences. Using a double-blind design, the experimental group (n=8) received 200 microgram of LSD in both interventions and the control group (n=4) received a mild dose of 20 microgram of LSD (used to create minimal subjective reactions). The setting consisted of an aesthetically pleasing, comfortable, safe and quiet room, in which the participant was free to either lie on a mattress or sit on a chair. The participant, one therapist and one co-therapist remained in the room for the entire eight hours of the treatment session, except for necessary bathroom breaks. The state anxiety assessed by the STAI at the end of the LSD interventions showed a statistically significant decrease ($p=0.02$). Notably, the 2- and 12-months follow-up data revealed sustained reduction in trait anxiety. No strong adverse reactions related to the hallucinogen treatment occurred (18). The data suggests that LSD can, when administered safely in medically supervised settings and in combination with an on-going integrative psychotherapy, lower anxiety in advanced-stage cancer patients.

Another widely cited study, conducted at *Johns Hopkins University*, might allow further insight into hallucinogens' potential application as treatment for existential fear and anxiety.

18) Gasser, P., Kirchner, K., and Passie, T. 2014. LSD-assisted psychotherapy for anxiety associated with a life-threatening disease: A qualitative study of acute and sustained subjective effects. *Journal of Psychopharmacology*.

Recently, clinical studies have re-evaluated the potential of LSD and psilocybin for lowering death anxiety in advanced-stage cancer patients

Griffiths, Richards, McCann and Jesse (2006) (19) utilized psilocybin to induce mystical-like experiences during three 8-hour sessions (at 2-month intervals). All 36 participants were psychiatrically and physiologically healthy volunteers. The investigators used a double-blind, placebo-controlled, between-group design. Although the study did not specifically focus on advanced-stage cancer patients, its results may represent important inspiration for future research into psycho-oncology. Questionnaires, originally developed to assess the natural (non-drug induced) occurrence of mystical experiences, indicated that 22 out of the 36 participants had a 'full' mystical experience after being administered a high dose of psilocybin (30 mg/70 kg bodyweight). A mystical experience is characterized by an experience of oceanic unity and the perception of an interconnectedness of all things. Frequently, these boundary-dissolving experiences induce a universal feeling of love and a deeply penetrating peace. Notably, 67 % of participants ranked the psilocybin experience as one of the most meaningful experiences of their lives and several participants compared it to the profundity of the birth of their children or the death of a loved one. Thirty-three percent called it the single most spiritually significant experience of their lives. Observer ratings by friends, family members and fellow work employees, all of whom were uninformed about the psilocybin administration, supported the beneficial changes participants described. The data revealed a sustained improvement in overall psychological state at both 2-month and 14-month follow-up, represented by an increase in self-confidence, decreased nervousness and improved ability to cope with frustration. Importantly, the psilocybin-induced state positively affected participants' perception of death and led to a sustained decrease in existential anxiety at the 14-month follow-up (19).

19) Griffiths, R. R., Richards, W. A., McCann, U. U., and Jesse, R. R. 2006. Psilocybin canoccasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance. *Psychopharmacology*, 187(3): 268-283.

67% of participants ranked the psilocybin experience as one of the most meaningful experiences of their lives

However, despite the promising findings, the small sample sizes of the recent hallucinogen studies, of which only two assessed anxiety profiles in cancer patients, leave much room for questioning their external validity. Possible underlying reasons for the small samples sizes of current human hallucinogen research will be briefly discussed here. Researchers pursuing investigations with classical hallucinogens face substantial obstacles on financial, political and methodological dimensions. The funding that has fuelled the revival of human hallucinogen research has come mostly from non-profit research organizations. The most prominent organizations are the *Multidisciplinary Association for Psychedelic Studies* (MAPS), the *Heffter Institute* and the *Beckley Foundation*. Notably, these organizations have not yet received financial support from the pharmaceutical industry, government agencies or other major research foundations (15). In order to fund hallucinogen research, organizations like MAPS solely rely on the financial contributions of private donors. Thus, hallucinogen research is, compared to federally funded research, a difficult and patience-requiring endeavour. Due to lack of funds, initiated and promising investigations only slowly progress towards final completion (6).

Additionally, current drug laws in the USA and Europe present rigorous limitations to novel therapy approaches that utilize drugs that are placed into Schedule 1 of the Controlled Substance Act (e.g. all classical hallucinogens). Substances within this category are defined as carrying no medicinal value, lacking safety when administered in a medically supervised environment and presenting a high potential for abuse (6). In order to effectively apply the available, yet insufficient funds, researchers frequently save expenses by conducting human hallucinogen studies with small sample sizes, rather than entirely abandoning strenuously acquired study approvals (15). Additional methodological limitations arise in the work with advanced-stage cancer patients due to variation in cancer types and the inability to assemble appropriate control groups. Furthermore, standard therapy guidelines that would allow researchers and therapists to adjust the scheduling of sessions to the clients' needs have not been fully established. Additional investigations are necessary to develop appropriate dosages for the administration of hallucinogens as an adjunct to psychotherapy. Even a slight alteration in LSD or psilocybin dosage can potentially generate enormous variations in the psychological intensity of the participant's experience, which might complicate data analysis and poses the risk of rendering results inconclusive (8).

Based on the emerging evidence from neuroscientific and clinical studies, which reveal a vast spectrum of potential applications for LSD and psilocybin (e.g. treating end-of-life crisis; improving psychological well-being; smoking-cessation) (20), drug policy regarding this class of substances is evidently out-dated. Today's legislation on hallucinogens is not informed by current scientific evidence: LSD and psilocybin continue to be classified as Schedule 1 drugs. This categorization not only discredits their potential medicinal value, but also hinders the progression of hallucinogen research through legislative restraints. For example, hallucinogen research lacks federal funding and, likewise, research proposals are frequently dismissed due to the restricted scheduling of hallucinogens. Furthermore, the cost for hospitals and researchers to acquire research licenses for this class of compounds is expensive and they only last one year (21). Admittedly, the current literature on serotonergic hallucinogens is sparse and the unique methodological challenges of this research field require much future work. Nonetheless, it seems absolutely reasonable to request an immediate rescheduling of LSD and psilocybin in order to allow further research avenues to open up, which may advance our insights into the neurobiology and causes of anxiety and depression. This unique class of drugs carries the potential to provide novel therapeutic approaches that ease the psychological suffering of cancer patients. Considering the promising medicinal value of hallucinogens, the availability of state-of-the-art technology (e.g. neuroimaging) and the advancement of contemporary research methodologies, this long-neglected but historically important research field should be federally supported and re-legitimized. The urgent clinical need must subdue political apprehension.

20) Bogenschutz, M. P., and Johnson, M. W. 2015. Classic hallucinogens in the treatment of addictions. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*.

21) Nutt, D. J., King, L. A., and Nichols, D. E. 2013. Effects of Schedule I drug laws on neuroscience research and treatment innovation. *Nature Reviews Neuroscience*, 14(8): 577-585.

Colophon

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