MINDFULNESS ON TWITTER

The Discourse Behind Textual and Visual Representations of Mindfulness on Twitter

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Abstract

Our study is a collaborative dissertation paper that combines two different discourse analyses, textual and visual, based on a common theoretical background. The introduction guides the reader through the content of the study, at the same time offering a brief context of research. The aim of the paper is to address a gap that we identified in the study of mindfulness, namely a critical approach, from a media and communication perspective, of how this concept is represented in social media. Even though our research questions are developed separately in the analyses conducted independently, they can be reduced to three core questions: ‘How is the meaning of mindfulness constructed on Twitter?’, ‘Are there any power relations in the construction of discourse and if they exist, how do they shape the discourse?’, ‘How does the reproduction and circulation of discourse shape its meaning through intertextuality?’

For answering these questions existing research from psychology, sociology and business has been reviewed, with the mention that no relevant media and/or communication studies on mindfulness have been found. Therefore, our attempt to open a discussion in the field required a theoretical frame of analysis. For that we chose Michel Foucault’s discourse theory, adding observations on relations of power, and Stuart Hall’s theories of representation. The methodologies used for the two analyses are Fairclough’s and Rose’s approaches of applied discourse analysis. Critical Discourse Analysis (CDA) and Visual Discourse Analysis (VDA) are two detailed disseminations of qualitative data, conducted separately. Results show that there is a mainstream discourse that portrays mindfulness as a positive practice. This type of discourse might be invested with power, however our conclusions in this sense are restrained by the limitations of access to Twitter data. High intertextuality and low reliability on the scientific discourse further suggested in our case that the understandings of mindfulness are subject to change due to an advanced grade of interpretability among Twitter users.
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I. Division of Work

Our work is structured with the ulterior motive of bringing together our separate perspectives through the study of the same discourse. By conducting two critical discourse analyses in parallel we are granted the possibility to compare the similarities and contradictions between the two and use them to discuss the credibility of different arguments and conclusions. However, we do not want to restrain the richness of our results by representing the advantage of a double study. We aimed to conduct two slightly different discursive analyses, striving to complement each other, rather than legitimize the credibility of our study.

The research and writing process has been divided in four different stages. In the first stage we worked together in order to find related studies and located the consensus of mindfulness within the different fields presented in the Literature Review. In order to streamline the process, in the second step we emphasized different sections while sharing and discussing our information. Deliana focused on the theoretical chapters, especially on Foucault and Hall, whereas Måns conducted the quantitative study and developed the visual methodology. The third step involved a clear division of work and we carried out one discourse analysis each. Deliana disseminated the discourse of mindfulness through textual modes based on Norman Fairclough’s methodology and Måns studied visual modes based on Gillian Rose’s. What differentiates the two and the reasoning behind it is presented in the methodology chapter.

Lastly, we came together again to compare the results of the two analyses in the discussion. All other various and minor technicalities throughout our work have been either treated together or distributed reasonably.
II. Introduction

According to Oxford Dictionary, mindfulness can be defined in two similar ways: 1. “The quality or state of being conscious or aware of something” or 2. “A mental state achieved by focusing one’s awareness on the present moment, while calmly acknowledging and accepting one’s feelings, thoughts, and bodily sensations, used as a therapeutic technique”. Both definitions portray mindfulness as an abstract concept, without indicating its practical applications in everyday life. The former definition refers to a quality, thus limiting the range of uses for the word mindfulness in current language. However, we are more interested in the latter definition that is more open to interpretation and moreover, in how these interpretations circulate under the form of text and image on social media. We are disseminating the concept from a media and communication perspective and our study is designed to fit a ‘new research question’ model, as we consider that representations of mindfulness in social media are not being currently looked at with a critical eye. In our literature review of existing research we attempted to cover the fields where relevant mentions of mindfulness were made. Psychology seems to be the discipline with which mindfulness has intersected most since its import into the western culture. Nevertheless, sociology, business and cultural studies are fields that took an interest in mindfulness and will help us map the different pathways through which mindfulness reached media. In order to conduct a thorough analysis of the concept a theoretical framework was required, therefore we opted for Michel Foucault’s discourse and Stuart Hall’s representation theories. Their constructivist viewpoint is the stance that reveals best the mechanisms behind both production of social media material and its circulation, processes vital in the creation of discourse. For a better understanding of how meaning is created we will triangulate theory with qualitative and quantitative data. Our focus is on qualitative data analysis, as the access to large amounts of data from social media platforms is limited, therefore restraining its statistical relevance. The quantitative study consists of a statistical analysis that includes the most commonly seen Twitter accounts, words and hashtags associated with ‘mindfulness’ and most retweeted tweets. In order to be consistent in the data gathering strategy, we collected some of the most retweeted articles and images in order to conduct the qualitative analysis. As methods of working with the content we will use adaptations of Foucault’s discourse analysis, tailored to fit empirical
approaches, developed and used by Normal Fairclough and Gillian Rose. We will conduct two separate analyses: textual and visual, each of us using the same theoretical standpoint, but reflecting independently on our parts. Only the results will be compared in the Discussion section, in order to offer to the readers a more accurate and complex view upon the representations of mindfulness.

II.1. Aim

Our thesis will address a gap in the study of mindfulness, namely a critical approach of its representations in social media. Existing studies discuss mindfulness critically from several perspectives: scientific in psychology, neuroscience and psychiatry, sociological and cultural, but there is a lack of academic material to address the mechanisms of communication at work in media representations of mindfulness. As the current discussion about mindfulness in media revolves around its applications and benefits, we want to go a step further and analyse how discourses give meaning to the practice. Through critical discourse analysis of material collected through retweeted images and text labelled with the ‘mindfulness’ hashtag, we ask the following questions: How is the meaning of mindfulness constructed on Twitter?; ‘Are there any power relations in the construction of discourse and if they exist, how do they shape the discourse?’; ‘How does the reproduction and circulation of discourse shape its meaning through intertextuality?’
III. Literature Review of Existing Research

Existing research on mindfulness that we had access to, i.e. texts written in English, generally originate from English speaking countries, even if mindfulness as a concept has been imported from Eastern cultures.

We have looked at research from several fields that either discuss mindfulness or offer valuable insights in cultural and sociological practices, which helped us to understand how mindfulness has permeated mainstream culture and media. The initial discussions around mindfulness that we traced back to the 1970s were limited to the field of psychology. Other studies covered the field of sociology and corporate market. Due to a lack of research on mindfulness within media studies, our paper can be considered an opener for a larger discussion that triangulates qualitative and quantitative data with theories from various branches of study, in order to start a discussion on mindfulness relevant for the media and communication field. Our multi-disciplinary perspective allowed us to investigate the uses and developments of the discourse(s) surrounding mindfulness in social media, facilitated by a specific socio-cultural environment.

III.1 Mindfulness: The Western Socio-Cultural Context of Emergence

As the first research papers on mindfulness date back to the 1970s in the United States, Christopher Lasch’s controversial The Culture of Narcissism offered us a perspective on the sociological, cultural and political background favourable for mindfulness to flourish as a trend, beyond its clinical applications in psychology.

Christopher Lasch's take on the American culture is a gloomy evaluation of the values and ideologies that prevail in the 70s U.S. society and political scene. He claims that America is undergoing a cultural revolution based on radical individualism, which can be considered an overstatement when looked at from 2016. However, this point of view can be valuable in analysing the western social context where mindfulness emerged. Lasch uses the concept of narcissism to describe a decadent society that "has carried the logic of individualism to the extreme of a war of all against all, the pursuit of happiness to the dead end of a narcissistic preoccupation
with the self" (1979, p. xv). Furthermore, he talks about a new individual prototype, psychological and anxious, striving for a meaning in life, who is the result of capitalism (1979, p. xvi). His whole argumentation is built upon the premise that the current generation has lost its trust in the past and history, lacking core values, which also makes it impossible to focus on the future, yet only on the present. Drawing upon his conclusions we can make a correlation to the emergence of mindfulness in mainstream culture, as a meditation practice based on a strong awareness of living in the present moment.

In a period of turmoil and insecurity caused by the end of the century superstitions, the bomb threat and a rapidly changing technological landscape, Lasch mentions a "growing despair of changing society [...] which underlies the cult of expanded consciousness, health and personal growth so prevalent today" (1979, p. 4). He also claims that being short of other means of life improvement, people started to focus on "psychic self-improvement: getting in touch with their feelings, [...] immersing themselves in the wisdom of the East [...], overcoming the fear of pleasure" (ibid.). While Lasch fails to prove with solid research the reasons behind this new focus on "the self", the mentioning of these new tendencies in the American society can be taken into account as valid sociological observations and provide us with an image of the late 1970s. This consequently sheds some light on how mindfulness permeated into the mainstream western everyday practices.

Jon Kabat-Zinn is a Professor of Medicine and the creator of the Stress Reduction Clinic and Centre for Mindfulness in Medicine, Health Care and Society at the University of Massachusetts Medical School. Regarding mindfulness, he is one of the first to "experiment with different ways of bringing these ancient consciousness disciplines into contemporary mainstream settings" (Kabat-Zinn 2003). His observation regarding the relation between yoga and mindfulness in the 1970s, when he was a yoga teacher, is interesting in the societal context described by Lasch. Kabat-Zinn states that "meditators would have benefited from paying more attention to their bodies (they tended to dismiss the body as a low-level preoccupation) (ibid.). Based on Lasch’s observations and Zinn's first attempt to transfer this Eastern concept into the American culture, we can state that the late 1970s is the period when this trend emerged in the Western world.
III.2 Mindfulness in Psychology

Several papers on mindfulness discuss the context of MBSR, or Mindfulness-Based Stress Reduction that originates in the pioneering work of Jon Kabat-Zinn in behavioural medicine beginning in the late 1970s (Kabat-Zinn 1982). It is however necessary to define mindfulness and identify the origins of the concept in order to understand its applications in psychology as a prequel to its entering and circulation in social media.

Mindfulness “is most firmly rooted in Buddhist psychology” (Bryan, Ryan and Creswel 2007). What may constitute a reason for its compatibility with western philosophies, facilitating its adoption in the mainstream, is a “conceptual kinship with ideas advanced by a variety of philosophical and psychological traditions: ancient Greek philosophy; phenomenology, existentialism, naturalism in later Western European thought; and transcendentalism and humanism in America" (ibid.). Most of the research on mindfulness is however concentrated around its positive applications in psychology.

The commonly used definition of mindfulness as intentional, non-judgmental awareness was introduced by Kabat-Zinn to describe training in the Mindfulness-Based Stress Reduction program mindfulness with or without specific training (Brown et. al. 2007). In our research we are following more closely Kabat-Zinn’s approach for two main reasons. Firstly, it is the version that over time became what we will repeatedly refer to in our paper as ‘mainstream representations of mindfulness’. Secondly, Kabat-Zinn’s intention at the end of the 1970s was to popularize mindfulness. He contributed to the introduction of mindfulness-based stress reduction (MBSR) interventions, a therapeutic and clinical application of mindfulness-based practices for the treatment of many psychological and psychosomatic problems. Over the last 20 years, interest among scholars and clinicians in MBSR has grown exponentially (Williams & Kabat-Zinn 2011), and it is now the most widely taught secular form of mindfulness practice in academic medical centres and clinics throughout North America and Europe (Davidson & Begley 2012). The practical approaches are not considered relaxation or mood management techniques, but rather “forms of mental training to reduce cognitive vulnerability to
reactivate modes of mind that might otherwise heighten stress and emotional distress or that may otherwise perpetuate psychopathology" (Bishop 2004, p. 231)

Mindfulness has been introduced in Western psychology in the 1970s and it is still used today in treating depression and anxiety, especially in Cognitive Behavioural Therapy. However, what makes mindfulness a complex concept is its presence in various fields, with different discussions and implicitly adaptations of the terms’ understanding to fit its array of uses. We will continue by looking at later applications of the concept, from the 1990s onwards, in sociology and finally in corporate media.

III.3 Mindfulness in Sociology

Several sociological studies that have discussed mindfulness in the 1990s relate it to well being in sustainability movements. They usually refer to mindfulness as a quasi-religious phenomenon or a "variable that is integral to experience of country living itself and that has, in addition, its own sustainability implication" (Jacob et. al 1999, p. 343). At this point in our discussion can be noted that mindfulness has been borrowed from psychology by the sustainability discourse that is already part of a larger scale discussion, with greater implications for mindfulness and its potential uses. Sustainability is in itself a concept with roots in the neoliberal doctrine, the ecology movement and global warming.

Further research on subjective well being (SWB) and ecology in the 2000s traces a relation to mindfulness and brings us closer to a more topical discussion of mindfulness in connection with the discourse of ecological sustainability in the neoliberal context. Karren and Warren identify a "purported conflict between human happiness and planetary welfare" (2005, p. 350) fuelled by a specific political discourse prevalent during the Bush administration, namely the opposition between a frugal life-style and happiness. However, by trying to demonstrate the opposite, they hypothesize that mindfulness might work as an antidote for consumerism, thus being an important factor in ecologically responsible behaviour (ERB). This could be labelled as the optimistic prediction for what mindfulness was to become, while the following section presents the opposite view, namely its inevitable intersection with the corporate environment.
III.4 “McMindfulness”

McMindfulness is a term coined for describing mindfulness practice within corporations in the pursuit of streamlining personnel efficiency. Purser and Loy call it out as a replica of the original practice (2013). McMindfulness is thusly a monetized adaptation of mindfulness that has become monetized engaged in processes pursuing profits. The connotation added in this case to the term by placing ‘Mc’ in front of it suggests its transformation once it enters the corporate world, namely its alignment to the market “values”, and might have a tainting effect on the initial understandings of mindfulness.

There are four types of mindfulness from a business perspective, identified and disseminated by Carrette and King (2005, p. 17). They argue for concepts of spirituality are being used in the postmodern era to smooth out resistance of consumerism and the corporate capitalism. They establish several different types of mindfulness in modern society and divide the relationship between mindfulness and capitalism into four categories:

- **Revolutionary or Anti-Capitalist Spiritualties** have emerged from specific religious traditions and rejected the ideology of neoliberalism and profits as goals combined with practices of spiritual or religious practices and beliefs (2005, p.17 ff.).
  - While **Business-Ethics/Reformist Spiritualties** would accept profitable pursuits and thus not neglect the entirety of the capitalistic system, but believe in restraints of the market in favour of the ethical principles of their traditions. Traditions of such reforms can be found in various religious co-operative movements, such as the Quaker tradition of ethically oriented business enterprises.
  - Individualist/Consumerist Spiritualties refer to movements emerged in the nineteenth century and developed in response to the industrial revolution and modern capitalism and represent the linkage between religious practices and profit motives. They’ve tended to be modernist in orientation and are complices with the capitalist system while simultaneously maintaining strong links to tradition, scripture and religious specificity (2005, p.19-21).
  - Movements and practices Carrette and King label as **Capitalist Spiritualties** are the ones that view spirituality and religions as tools to achieve the actual goal of monetary profits. They write that these businesses emerge because of the rise of global finance capitalism (ibid.).
Any of these four categories aren’t necessarily accurately applicable to McMindfulness to all corporations whom are invoking mindfulness in their routines. They do however argue for a growing connection between the two and the necessity to study the their relationship.

IV. Theory

The fundamentals constituting the theory serve as tools in order to understand the phenomena’s being studied. The presented theories make up the frameworks for the discourse analysis and add scientific validity to our interpretations.

IV.1 The Constructionist Viewpoint

The epistemological paradigm of our research takes a social constructivist approach. That implores a viewpoint or understanding which through linguistic as well as visual languages generates socially constructed meanings and interpretations (Krona 2009, p.53).

Constructionism (also called social constructivism) [...] is the epistemological view that all knowledge is dependent on social actors being constructed through interaction between themselves and their environment, which is developed and transmitted primarily through social context. (Collins 2010, p. 40)

We are taking the constructivist stance in analysing mindfulness, as our attention was drawn by the polymorphism of the concept. The lack of a ‘home institution’ to claim mindfulness, its applications and representations determined us to look at how social media, an eclectic space, builds a discourse around mindfulness. We started from the premise that the meanings of mindfulness nowadays are dictated by a certain dynamic in its circulation on media platforms.

“The idea that physical things and actions exist but they only take on meaning and become objects of knowledge within discourse, is at the heart of constructionist theory of meaning and representation” (Hall 2013, p. 189). The physical things and actions are the non-discursive element of mindfulness, while the objects of knowledge are the discursive dimension (Phillips, L & Jørgensen 2002, p. 19). As the non-discursive aspect of mindfulness includes a wide array of practices and objects, our
attempt to identify them would have been similar to an arbitrary inventory count. Thus we decided to focus on the discursive dimension, however being aware of the existence and importance of the physical things and actions, mentioning them whenever our analysis needed to step out of the discursive realm for clarifications and a better understanding of the processes at work in mindfulness representations.

From Wenneberg’s separation between four types of social constructionism, we selected two that work on the same levels that our research covers:

1) A perspective normatively questioning all types of social phenomena with a critical point of view. This perspective may be lacklustre in theoretical grounding but still incorporates central fundamentals with social constructivist premises. As for example, how journalism could portray an objective representation of reality. From a critical perspective, the terms surrounding journalistic practices have to be problematized (2001, p.16 ff.). This perspective is employed in our qualitative analysis of text and visual materials. For the discussion of analysis results we utilize the next perspective that will allow us to place the results in a larger context.

2) The second perspective can be described as a social theory, with focus on the interaction in every day scenarios, where the reality is viewed as being socially constructed. Treating questions of constructed phenomena through this viewpoint acts through interpretive perspectives rather than critical, i.e. through a humanities oriented view (ibid.).

Therefore our main research approach, namely discourse analysis constitutes an interpretive method meant to “highlight the social relationships and cultural values through which individuals make meaning” (Collins 2010, p. 40). In order to support our interpretivist viewpoint Michel Foucault’s discourse theory will be presented in the following section and used throughout the empirical analysis, discussions and conclusions as the main theoretical support.

We will focus on what Stuart Hall calls the constructionist approach of representation, examining two variants or models: visual discourse analysis or VDA, as we may refer to it throughout the paper, and critical discourse analysis or CDA. The methods that we will use are adaptations of Foucault’s discourse and Hall’ representation theories, developed by Gillian Rose for VDA and Norman Fairclough for CDA.
IV.2 Discourse Theory: Michel Foucault

Michel Foucault’s concept of ‘discourse’ as system of representation aids us in approaching critically the concept of mindfulness through its representations in social media today and the knowledge they deliver. “By ‘discourse’, Foucault meant ‘a group of statements which provide a language for talking about- a way of representing the knowledge about- a particular topic at a particular historical moment’” (Hall, 1992, p. 291). The languages that interest us are textual and visual; from a Foucauldian perspective they are both information (what one says) and ‘practices’ (what one does), especially because social media users bring their own contribution in the production of meaning, through sharing or commenting, but also because mindfulness is in itself a practice. Our object of analysis, in Foucauldian acception is the discursive formation around mindfulness on Twitter.

A later development in Foucault’s work brings into discussion the concepts of power and truth, towards which he takes a different stance compared to Marxist theories. Foucault rejects the traditional Marxist question ‘in whose class interest does language, representation and power operate?’ claiming instead that “power relations permeate all levels of social existence and are therefore to be found operating at every site of social life” (Foucault, 1980, p. 119). Therefore, we will adopt a similar perspective by not trying to find out how representations of mindfulness vary according to economic or social class criteria, instead assuming the relations of power infiltrate the whole range of representations.

Foucault relates knowledge to power arguing that “knowledge, once used to regulate the conduct of others, entails constraint, regulation and the disciplining of practices” (Foucault, 1977, p. 27), thus attributing relations of power to all the fields of knowledge. In other words, we are not looking at truths as scientific facts but at what is considered to be truth, i.e. the regime of truth, in a certain context and period of time, due to social discursive and non-discursive mechanisms that work in favour of a regime of truth and in the detriment of another.

In order to analyse power in society Foucault looks at the struggles against: subjectivity, domination and exploitation (each of them prevalent in a certain period in history). He argues that the struggle against subjectivity is predominant since the 16th century, when the state emerged as a new form of political organization: "the state is both an individualizing and a totalizing form of power" (Dreyfus and Rabinow
In the "modern state", the individuality has to be "shaped in a new form, and submitted to a set of very specific patterns" (ibid.). Thus, the new pastoral power shifted its objective from redemption in the afterlife to salvation in this world. "And in this context, the word salvation takes on different meanings: health, well-being (that is, sufficient wealth, standards of living), security, protection against accidents. A series of <worldly> aims took the place of the religious aims of the traditional pastorate" (ibid.). Foucault is more interested in the “many localized circuits, tactics, mechanisms and effects through which power circulates [...] these power relations ‘go right down to the depth of society’” (Foucault, 1977, p. 27). In this sense we correlate Foucault’s attention on the small scale working mechanisms of power with our focus on social media representations of mindfulness where the status quo discourse acts as a dominant force.

“Foucault was certainly deeply critical of what we might call the traditional concept of the subject” (Hall 2013, p. 191 ff.). In his acception, there are two types of ‘subject’, the one that is under someone else’s control and dependence and the one that is subject to “his own identity by a conscience and self-knowledge” (ibid.). Moreover, Foucault’s most radical proposition is that the ‘subject is produced within discourse. Stuart Hall explains Foucault’s ‘subject’ in the discursive approach of meaning representation and power by describing two ways in which the ‘subject’ is produced: Firstly, the discourse itself produces ‘subjects’ with the characteristics of that particular discourse (e.g. the madman, the hysterical woman etc.). Secondly, the discourse produces a place for the subject (i.e. the reader of the viewer, who is also subjected to the discourse). Therefore all individuals become subjects to a discourse “and thus the bearers of its power/knowledge” (ibid.). According to Hall this displacement of the subject from a privileged position in relation to power and meaning has its origins in a shift towards a constructivist approach of representation and language.

IV.3 Theories of Representation: Stuart Hall

"Representation is an essential part of the process by which meaning is produced and exchanged between members of a culture" (Hall 2013, p. 171-174). It is also the process that ties together three elements: ‘things’, concepts and signs (ibid.). We will be looking at the meanings of mindfulness produced by social media posts, exchanged
between the western world users. The social media posts analysed in this paper consist of text (articles) and images directly related to our topic.

In the social media the actual object of ‘mindfulness’ does not exist. However, the concept is defined in relation to the practices found under the same umbrella. Therefore people decode the meaning of ‘mindfulness’ through shared codes: a recurrent type of imagery and text that work as a convention, the same way languages work. Our interest is in deciphering the discourse(s) behind it, in order make valid observations about this discursive convention.

Stuart Hall identified two processes or two systems of representation (2013, p. 172). First there is the ‘system’ by which mindfulness is correlated with a set of concepts or mental representations, which people carry around in their heads (ibid.). In other words, without these concepts and images found in our thoughts we would not be able to interpret or refer to mindfulness meaningfully. Hall distinguishes between two types of things that we form concepts for: the ones that we can perceive easily, as chairs or tables, and the abstract ones such as love, friendship or death. “

Meaning depends on the relationship between things in the world- people, objects and events, real or fictional- and the conceptual system, which can operate as mental representations of them (Hall 2013, p. 173).

In this system of creating meaning, people and objects could be considered non-discursive elements, while the mental representations are expressed through discursive techniques. Belonging to the same culture means that people have a shared understanding of a concept because they use similar conceptual maps. We are thus able to disseminate representations of the ‘mindfulness’ concept produced and accessible within the limits of the culture we are part of, namely the Western world. Apart from culture, a shared language is necessary in order to exchange meanings and concepts. “Language is therefore the second system of representation involved in the overall process of constructing meaning” (ibid.). The linguistic signs represent the concepts and conceptual relations in our heads along with images or sounds, and in Halls’ opinion they make up the meaning system of our culture (ibid.). In our qualitative study of mindfulness we will not distinguish between the two systems of representation, as they complement each other both in the material we chose to look at and in the methods of analysis. They are mentioned and explained separately here in order to make the readers aware of the fact that our study is limited to the culture and language that we have access to.
IV.4 Visual Representation and Discourse Theory

Our study on mindfulness treats a discourse based on Twitter, which constitutes of visual as well as textual semiotic modes. Visual discourse analysis builds on discursive practices from the field of linguistics but differentiates in some strains. It is granted its own theoretical chapter in order to strengthen the visual analysis of mindfulness.

Just like in linguistic structures, visual ones point towards specific interpretations of experience and forms of social interaction. To some degree these visual structures can also be expressed linguistically, as it is more true to say that meaning belongs to culture, rather than certain types of semiotic modes (Kress & van Leeuwen 2006, p. 2). Through the ways meaning is mapped across different semiotic modes some things can be said both visually and verbally. But even though modes can express what seems or feels to be the same meanings through imagery, speech or written text, they will be realized differently (ibid.). What for instance is being expressed through the choice of word classes in written text may be expressed by the choice of colours in an image. This will affect the meaning of the communicated message and hence, Kress & van Leeuwen argue that the medium of communication does have an impact on meaning (ibid.).

The two semiotic modes: writing and visual communication have their own quite particular means of realizing what might be quite similar semantic relations. Kress & van Leeuwen compares the two communication forms accordingly: What in language can be realised as action verbs can in imagery be realised by the elements formally defined as vectors. And what in text is realised as locative prepositions can be corresponded by “the formal characteristics that create the contrast between foreground and background” (2006, p. 46). These examples will constitute as more or less truthful for each individual comparison but can nonetheless serve as useful tools for sense making and discursive analyses of the two semiotic modes. A particular culture brings a given range of general possible relations, which does not tie to the expression of any particular semiotic mode. The distribution of realisation possibilities across semiotic modes is itself determined historically and socially as well as by the inherent potentialities and limitations of each semiotic mode (ibid.).
Visually communicated messages do not only reproduce the structures of reality but, just like any form of communication, they produce images of reality that are bound up with the interests of social institutions, or, discourses within which the images are that produced, circulated and read. According to Kress & van Leeuwen, visual structures are never merely formal: they carry important semantic dimensions, which makes them to some extent ideological (2006, p. 47).

**IV.4.1 Modality in Visual Communication**

A central issue in communication studies is the level of reliability of a message and how to determine it. From Kress & van Leeuwen’s viewpoint different institutes are assigned different credibility and trustworthiness through routine and social construction (2006, p. 155). A social semiotic theory of truth is never able to establish an absolute truth or an absolute untruth of representations, but rather truths of more or less credibility. “From the point of view of social semiotics, truth is a construct of semiosis [signs in process], and as such the truth of a particular social group arises from the values and beliefs of that group” (ibid.). This understanding is equally important in visual communication and can just as textual communication carry representations of the real world, fictive worlds and everything in-between (2006, p. 156). In order to understand how to determine visual modalities Kress & van Leeuwen highlights a few great examples that viewers, though often subconsciously, take into consideration when determining the trustworthiness of an image: Colour saturation, Colour differentiation (range of different colours used) and colour modulation (nuances of each of the colours used) all play a vital role in the viewers eyes when determining the images modality (2006, p. 160). Many are skilled at determining what photographs that has been digitally edited and not, but in understanding why they reached such a conclusion: not so many. Colours are only a sample of the complexity that lies within our interpretation of realism. Lighting, depth, focus, composition and many more aspects all play their roles in the construction of meaning.

Taking into consideration the discourse, or context of an image makes determination of modality it even more complex. Is for example a photograph of an arranged still life more real than a courtroom drawing? Kress & van Leeuwen argue
that “visual modality rests on culturally determined standards of what is real and what is not, and not on the objective correspondence of the visual image to a reality defined in some ways independently of it” (2006, p. 163). This complexity can be appreciated from the other end, as appreciation of the meaning of paintings, photographs and other artistic creations are fields of expertise in themselves, where contradictions are anything but unusual.

Kress and van Leeuwen however continue to argue that visual communication is coming to be less and less the domain of specialists, and more and more crucial in the domains of public communication as the accessibility to view and create photography, digital illustrations and other imagery has become substantially higher with the technological development. Inevitably this is likely to construct new and more rules and boundaries. To more formal normative teaching that attracts social sanctions, meaning will not be visually literate unless it is following certain standards, similarly to the functions of grammar in text (2006, p. 3). Kress 6 van Leeuwen points out that such a development is a suggestion based on an array of indicators rather then an observable phenomena (ibid.).

The ability to share content over social media and the Internet in general is another factor that speaks for visual literacies. Networks on social media platforms allows for a big number of variables to categorising and finding visual material, by seeking to show “multiple interconnections between participants” (Kress & van Leeuwen 2006 p. 84). Any participant in a network can form an entry-point for other users, from which all of its environment can be instantly explored, and the lines connecting them, or vectors, can take on many different values. The essence of the link between two participants is that they are, in some sense, next to or close to each other and associated with each other, rendering analogue obstacles such as geographical location irrelevant. Though websites provides several functions in order to search and browse certain kinds of visual content, the range of choices are ultimately pre-designed and therefore limited. Networks are in the end, just as much modelled on forms of social organisation as taxonomies and flowcharts (ibid.). Kress & van Leeuwen means that the networks are modelled on a form of social organisation that is like a labyrinth of intersecting local relations, in which each node (user/page) is related in many different ways to other nodes in its immediate environment, making it difficult, if not impossible to form a coherent view of the
network, or labyrinth as a whole (2006, p.84 ff.). An appreciation of what constitutes within a particular social media discourse may be extremely complicated to locate, in the sense that it carries a seemingly structured order of discourse because of this structural complexity. Additionally the functions of the structural code of most social media websites such as Twitter and Facebook are not public which is forcing some degree of assumptions.

V. Methodology

Figure 1 illustrates each of the different parts of our methodological approach, in chronological order from left to right. Conducting this study in pair has allowed us to undertake two discursive analyses simultaneously. By originating the sources for the two analyses from similar starting points and then each of us conducting the CDA respectively the VDA separately, we hope to gain additional perspective. Furthermore, working in parallel with different material could be considered a replication of the study, which increases the reliability of our results. Similarities as well as differences between our findings are then to be compared in the discussion section.

Our research approach relies on Discursive Analyses methods, as it is meant to guide both us, the writers of this paper, and the reader in understanding the discourse that shapes and is being shaped by mainstream representations of mindfulness. Critical Discourse Analysis originates from the work of Michel Foucault. We will however use Norman Fairclough’s and Gillian Rose’s adaptations of the method,
because both involve empirical analyses of text (Fairclough) and image (Rose) in contrast to Foucault’s more abstract and analytical framework.

We used an exploratory sequential research design, namely we gathered “qualitative data in order to explore the problem and quantitative data to try to explain the relationships found in the qualitative data” (Collins 2010, p. 50). The quantitative data has only a supplementary function for a better understanding of the qualitative data analysis results.

V.1 Statistical Analysis

The following data collection aims to contribute with additional information to the discourse analysis. We will not conduct an in depth dissemination of quantitative data separately, but rather connect it to the discourse analysis in order to enhance the value and validity of the texts and images analysis.

V.1.1 Functioning

Social media mining is the process of representing, analysing and extracting actionable patterns from social media data. There are several ways of doing this, but Huan et al. argue for the necessity of mining tools in order to make sense of the “oceans of data” almost instantly available to researchers (2014, p. 16). Not merely the amount, but the possibilities of interconnections within the data complicate the sense making with the almost infinite number of variables. Any participant in a network can form a new entry-point, from which its environment can be explored, and the lines, or edges connecting them can take on multiple values (Kress & van Leeuwen 2006 p. 84 ff.), of for example followers, retweets and likes. Nonetheless, “the range of choices are ultimately pre-designed and therefore limited” and networks are in the end modelled on forms of social organisations, just as flowcharts (ibid.). “Apart from enormous size, the mainly user-generated data is noisy and unstructured, with abundant social relations such as friendships and followers-followees. This new type of data mandates new computational data analysis approaches that can combine social theories with statistical data mining methods.” (Huan et al. 2014, p. 15).
The collection of our data presented in the following figures and tables was extracted through the social media analysing tool COSMOS 1.5. Using Twitter’s public API it collected all tweets containing the word mindfulness respectively the hashtag #mindfulness. The public API (Application Programming Interface) is an open access stream of live data provided by Twitter that social media mining tools connects through to access the live feed of data. It is important to note that the public API provides a restricted amount of all of Twitter’s data and that if the search filter represents more than one per cent of the totality it will automatically be selecting samples. Under what conditions the samples are provided is currently unknown (Morstatter et al. 2013, p. 1).

The data collected with COSMOS was extracted from 13:00 CET on the 19/4 – 2016 for 24 hours. During this period 14493 Tweets was collected. The total number of tweets occurring that day is unknown to us, but it’s safe to assume that the 14493 tweets we’ve collected did not exceed the one percentage sampling limit, as even though the number of tweets occurring daily is reducing are estimated to at least 300 million per day (Oreskovic 2015). This number puts our collection to

\[
\frac{14493}{300,000,000} \approx 0.00005 = 0.005\%
\]

of the total amount of tweets that day

V.1.2 Data

*Gender of accounts tweeting or retweeting mindfulness or #mindfulness in COSMOS data sample.*

*Table 1 – Genders in mindfulness tweets*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of accounts</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>3864</td>
<td>27%</td>
</tr>
<tr>
<td>Male</td>
<td>2893</td>
<td>20%</td>
</tr>
<tr>
<td>Unknown</td>
<td>6954</td>
<td>48%</td>
</tr>
<tr>
<td>Unisex</td>
<td>782</td>
<td>5%</td>
</tr>
</tbody>
</table>

This data sample clearly shows insufficient values in order to make any critical connection to a gender majority in ‘mindfulness’ tweets. Contradictory, it suggests
gender-neutrality, or vague connections between gender and mindfulness in the sample. However, COSMOS only treats the electable selection of sex Twitter provides. Meaning it does not include other factors from which users may draw conclusions such as account names or profile pictures.

Most commonly seen accounts, words or hashtags in relation with mindfulness or #mindfulness in COSMOS data sample.

Table 2 – Most common accounts

<table>
<thead>
<tr>
<th>Term</th>
<th>Usage in numbers</th>
<th>Usage in percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#mindfulness</td>
<td>10217</td>
<td>70%</td>
</tr>
<tr>
<td>@911well</td>
<td>4995</td>
<td>35%</td>
</tr>
<tr>
<td>mindfulness</td>
<td>2838</td>
<td>20%</td>
</tr>
<tr>
<td>#mindbody</td>
<td>2605</td>
<td>18%</td>
</tr>
<tr>
<td>#meditation</td>
<td>1098</td>
<td>8%</td>
</tr>
<tr>
<td>don’t</td>
<td>957</td>
<td>7%</td>
</tr>
<tr>
<td>thoughts</td>
<td>752</td>
<td>5%</td>
</tr>
<tr>
<td>#innerspace</td>
<td>635</td>
<td>4%</td>
</tr>
<tr>
<td>never</td>
<td>627</td>
<td>4%</td>
</tr>
<tr>
<td>people</td>
<td>623</td>
<td>4%</td>
</tr>
<tr>
<td>#mentalhealth</td>
<td>606</td>
<td>4%</td>
</tr>
</tbody>
</table>

Most retweeted accounts containing mindfulness or #mindfulness in COSMOS data sample.

Table 3 – Most retweeted accounts

<table>
<thead>
<tr>
<th>Account</th>
<th>Number of retweets</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>@911well</td>
<td>2622</td>
<td>18%</td>
</tr>
<tr>
<td>@crayonkitchen</td>
<td>145</td>
<td>1%</td>
</tr>
<tr>
<td>@alpalcrystalgal</td>
<td>138</td>
<td>1%</td>
</tr>
</tbody>
</table>

The data in the three tables is presented to give a brief overview of the significance or insignificance of different constants in the sample collection, but mainly it serves to supply value and perspective to concerns or conclusions raised in the discourse analyses.
Graphical network view showing the ‘influential importance’ of an account based on the number of retweets and connections to retweeting accounts it has.

Figure 2 – Account connectivity (COSMOS-twitter-collection 2016-04-19)

Each blue, purple or yellow circle represents an account that tweeted or retweeted a text containing mindfulness or #mindfulness. A bigger circle equals more tweets/retweets.

As the circles overlap and cannot be counted, precise numbers are irrelevant in this graph. It does however illustrate the significance of one particular accounts influence in comparison to others. 911well represents 18,1 per cent of the totality of #mindfulness tweets. Moreover it illustrates the lack of connecting lines (all cornered circles) with a substantial amount accounts. Simplified this can be viewed as one central community constituting of circa 18 per cent that being exposed to the same material through their Twitter feeds. The cornered circles, a big majority of individual accounts (circa 80 per cent) are not visible in the others Twitter feeds unless they are connected through other hashtags. This sample suggests that there is one community within which users are exposed to other mindfulness-related material. Outside of this community users do not exchange tweets regarding mindfulness with one another.
The effect this relationship between users has on the discourse and interpretation of mindfulness will be discussed in the analyses.

V.2 Critical Discourse Analysis Method

What discourse analysis approaches have in common is that “they see discourse as partly constitutive of knowledge, subjects and social relations” (Phillips, L & Jørgensen 2002, p. 91 ff.). Fairclough’s method differentiates itself from others including Foucault’s through a “more poststructuralist understanding of discourse and the social” (ibid.). It treats “language use as social practice – actual instances of language use – in relation to the wider social practice of which the discursive practice is part” (ibid.). More than that, for Fairclough “the conception of discourse as partly constitutive underpins his empirical interest in the dynamic role of discourse in social and cultural change” (ibid.). One shortcoming identified by Phillips, L & Jørgensen in Fairclough’s perspective is that his analysis is limited to single texts, which “leaves little space for the possibility that the struggle is not yet over and that the discursive practices can still work to change the social order” (2002, p. 89). We aim to overcome this limitation through a close look at the circulation and reproduction of discourses in different texts and relate it to a context outside of the institutions the discourse had been produced in. In other words, we will lean towards a more dynamic, Foucauldian approach of relationships that shape discourses.

Our focus is on the sphere of media representations that add new meanings to the concept of mindfulness and our discussion revolves around the understanding of mindfulness stemming from its representations in social media, using earlier research and cultural context as signposts. We share Foucault's interest in "the rules and practices that produced meaningful statements and regulated discourse in different historical periods" (Hall, 1992, p. 291) with an interest in how the discourse around mindfulness is being regulated via social media.

A critical discourse analysis can draw upon many different takes on the meaning of discourse analysis. Fairclough’s framework for CDA involves a range of concepts that are interconnected into a three-dimensional model (2002, p. 64). One important aspect of Fairclough’s discourse theory is that discourse is both constitutive and constituted, which is not the case in general CDA and poststructuralist discourse theory (2002, p. 65). For Fairclough meaning is central to see that discourse
represents an important form of social practice, which both reproduces and changes knowledge, identities and social relations including power relations. Through Fairclough’s perspective social structures can be understood as social relations and these can consist of both non- and discursive elements (ibid.). Non-discursive practice could be a physical construction of a building, whilst discursive practices can be found and discussed in journalism for example. His approach is one that brings together three forms of discursive traditions, (1) “Detailed textual analysis within the field of linguistics” (2) “Macro-sociological analysis of social practice” (3) “The micro-sociological, interpretative tradition within sociology, where everyday life is treated as the product of people’s actions in which they follow a set of shared ‘common-sense’ rules and procedures” (2002, p. 65 ff.). Fairclough does not see stand alone text analysis as sufficient for discourse analysis, as it does not pay attention to the links connecting texts and societal or cultural structures. Thus he argues for the necessity of an interdisciplinary analytical approach. Macro-sociological traditions take into account the fact that social practices are shaped by social structures and power relations, in order to “provide an understanding of how people actively create a rule-bound world in everyday practices” (ibid.). In order to make better sense of Fairclough’s model of discourse, it can be divided into what he calls a three-dimensional model, as illustrated in Figure 3 below

![Figure 3 - Fairclough’s three-dimensional model for critical discourse analysis](Fairclough, 1992, p. 73)
This illustration draws the two focal dimensions the communicative event and the order of discourse, where the firstly mentioned represents any set of language use or communication, like a news article or a medicine journal. The latter refer to types of discourse, used within a social institution or a social field. News articles and medicinal journals for example are both individual genres in the sense that they are follow a particular language that participates in parts of particular social practices. Both are restricted by their individual rules and norms. They are all therefore shaped after their respective order of discourses, namely the discourse of the media and the discourse of hospitals/medicine. Notably the orders of discourse could be broader or narrower, like the discourse of journalism, the discourse of online news articles and so on (2002, p. 67).

Going back to the illustration in Figure 3. It can be based on the following statement: Every instance of language use is a communicative event consisting of three dimensions:

- It is a text (speech, writing, visual image or a combination of these);
- It is a discursive practice which involves the production and consumption of texts; and
- It is a social practice (2002, p. 68).

By following the model through the order listed above, the analysis starts on a micro-level and expands outwards toward a macro-perspective, like Figure 3 illustrates. Text analysis directs towards formal features like vocabulary, grammar and sentence coherence. Fairclough highlights that the analysis of the linguistic features, within the text dimension, inevitably will involve analysis of the discursive practice and that the same is true the other way around, yet they should be separated analytically (ibid.).

The second step, the analysis of discursive practice focuses on how the authors of texts draws from already existing discourses in order to generate the text, as well as how the receiver, or reader of the text applies discourses within their knowledge to interpret it. Discursive practices can be identified as hybrid forms, meaning that the text, or the interpretation of it that is being analysed draws on multiple emerged discourses (2002, p. 69). Not meaning that discourses otherwise are isolated from each other, but rather that an analysis can benefit from identifying the main sources within a hybrid discourse.
The discursive analysis of the social practice is in itself not sufficient, but is best combined with social and cultural theory. Fairclough’s claim is that the relationship between a communicative event and the order of discourse is a dialectical one. He means that the discourse order is a system, but not in a structuralist sense. He means that communicative events not only reproduces orders of discourse, but may also influence change within them through use of language. This can occur when language communicated within the discourse is drawing on another order of discourse. Connecting a news article on mindfulness to a research article on the same topic from the field of psychology would thus influence the order of discourse the article is found within. Similarly interdiscursivity happens when different “discourses and genres are articulated together in a communicative event” (2002, p. 73). Fairclough states that creative practice of discourse that combine different kinds of discourse in new ways are a sign of socio-cultural change whilst discourses mixed in conventional ways are indicators of discourses striving towards a dominant social order.

Interdiscursivity is a form of intertextuality, where the latter refers to communicative events drawing on earlier communicative events. In text, one cannot avoid using words that have not been used before which in a sense is intertextuality. More precisely, an exact reproduction of a quotation or reference within a text is referred to as manifest intertextuality (ibid.).

V.2.1 Sources

Using Fairclough’s three-dimensional model, we will be contrasting three articles that bring scientific claims for and against the mainstream application of mindfulness. All three articles were among the popular results on Twitter on April 27, 2016 after a search based on the mindfulness hash tag. We used this type of sampling in order to be consistent with the data gathering method used for the quantitative analysis. The article in favour of mindfulness has been retweeted 152 times, while the other two, contesting mindfulness, have been retweeted 127 and 33 times. Nevertheless, we picked them because they had been retweeted more compared to others and not because of the validity of the research they discuss. Therefore the research methods or results will not be debated, but we will disseminate the
discourse(s) used in presenting the data, in order to understand how the information is conveyed to the reader and various discursive strategies put to use in the communication process. The first article was published on the Oxford University web page on April 27, 2016 and the other two on inc.com on April 25, 2016 respectively scientificamerican.com on April 21, 2016, being initially shared by the publishing pages.

V.2.2 CDA: Research Questions

- Is there a mainstream discourse around mindfulness in journalistic articles?
- What is the dynamic between discursive and non-discursive spheres in the textual representations of mindfulness on Twitter?
- How do power relations and the regime of truth work in representations of mindfulness?
- What is the influence of intertextuality on the construction of meaning?

V.3 Visual Discourse Analysis Method

Rose raises the question of how to know what material best represents its discourse and that it doesn’t necessarily have to be dependent on “the quantity of material analysed” (2013, p. 199) nor, if identifiable, the most saturated material within a discourse, leaving it to the researcher to “legitimately select from all possible sources [of] those that seem particularly interesting to you” (ibid.). She argues for the necessity of selecting sources for analysis with great care for visual as well as textual discourse analysis (2013, p. 197). It “is useful to begin by thinking about what sources are likely to be particularly productive, or particularly interesting” (2013 p. 199).

The three top saturated images selected and presented in the following section has been regarded in comparison to several other images as well, but being both good representatives of their order of discourse, of high visibility and most importantly carrying interesting similarities with one another and the totality of the data sample have all been impactful factors in the material selection.

Discussing necessity of material to make up an arbitrary array of sources Rose quotes the collective thoughts of Foucault, Phillips and Hardy, and Tonkiss on that ideally all sources available should be analysed. Since that’s likely not possible, “the
feeling that you have enough material to persuasively explore its intriguing aspects”
together with the insight that it is not the quantity of material that lays ground for a
fruitful discourse analysis, but the quality of is what sets the limitations for discursive
material collection (Rose 2013, p. 199).

Gillian Rose’s defines her take on the meaning discourse through Foucault by
referring it to “groups of statements that structure the way a thing is thought, and the
way we act on the basis of that thinking” (2013, p. 190). Drawing on Lynda Nead, she
argues how discourses can be constituted by visual communicative events. “The
discourse of art in the nineteenth century [consisted of] the concatenation of visual
images, the language and structures of criticism, cultural institutions, publics for art
and the values and knowledge made possible within and through high culture” (ibid.).
Essentially meaning that knowledge, institutions and practices are what define certain
imagery as art, rather than the imagery itself. Just like in text, intertextuality, that a
discourse draws on, within a communicative event, meanings of other discourses, is
according to Rose crucial for making sense of visual discourse (2013 p. 191).

Sprung from the Foucauldian perspective on discourse, Rose has divided her
visual discourse analysis methodology into two parts; ‘Discourse analysis I’ and
‘Discourse analysis II’. Discourse analysis I tends to pay most attention towards “the
notion of discourse as articulated through various kinds of visual images and verbal
texts than it does to the practices entailed by specific discourses” (2013 p. 191) while
Discourse analysis II differentiates by concerning mainly regimes of truth, institutions
and technology. It pays more attention towards practices of institutions than to the
images (ibid.).

As the discourse we’re analysing isn’t relatable to any main institution and
seems to draw from a severe number of fields (as shown in the literature review)
we’re using the first method of Gillian Rose’s CDA - Discourse analysis I.
Henceforth referred to as Visual Discourse Analysis, or VDA, for the convenience of
keeping it separated from our textual discourse analysis based on Fairclough’s
methodology.
V.3.1 Key Aspects of VDA

Foucault says pre-existing categories “must be held in suspense” - highlighting that looking with fresh eyes at the material, can give a different outcome than that nuanced through thorough research of similar analyses (2002). Rose suggests a search for work that’s being done to reconcile conflicting ideas and that it will highlight processes of persuasion that otherwise are hard to detect (2013 p. 216).

Another important aspect from Foucault is his discussions of portraying of truth, or “how a particular discourse works to persuade” (Rose 2013 p. 215). Addressing this matter can be done through links between the material under the magnifying glass and scientific certainty, or to the natural way of things (ibid.).

Drawing on Potter, Rose emulates the concept of interpretative repertoires as “mini-discourses” (2013, p. 218). A set of systematically related visual terms, or stylistic significations within the material that tend to make up central part of the sense making of their coherent culture (ibid.). “Interpretative repertories are systematically related sets of terms, often used with stylistic and grammatical coherence, and often organized around one or more central metaphors” (Potter 1996). For the three images we analyse such a stylistic feature can be identified in for example the relation between the images themselves and the quotes nested within the images (as is further shown in the analysis chapter).

Rose declares the final part of the visual discourse analysis to reading into what’s not in the image. Referring to that absence of tokens, or significations can bear meaning and communicate just as productively as explicit tokens can (2013, p. 219).

Summary of the steps of the VDA:

- Look at sources with fresh eyes
- Immerse yourself in your sources
- Identify key themes in your sources
- Examine their effects of truth
- Pay attention to their complexity and contradictions
- Look for the invisible as well as the visible
- Pay attention to details (Rose 2013, p. 220)
V.3.2 Selection of sources

This chapter treats the method used to analyse the visual material specifically. Though being a discourse analysis method drawing from Foucauldian and linguistic analyses methods, VDA differentiates from them in some ways. Since our study strives to analyse a Twitter-based discourse, and the data we collected consisted of interesting and vital visual elements, we see a value in treating these elements with their own structure of methodology. Connections between the two methods in the analysis are still anticipated, as they complement rather than contradict each other.

Three different images produced through three different tweets have been selected after, just as for the articles: their saturation on social media. All three images have been selected from a one hour extraction of twitter data on the 19th of April, starting from 12:15 CET, via the mining tool Scraawl.com. The images are the three most retweeted ones during the period of when the mining tool was active.

Because of limitations on Twitter’s end, most tools are either only available to extract data through their public API over a restricted period of time before they’re denied access, or like the COSMOS tool we use for the statistical data not capable of including images. Since this study cannot bare the expense of Firehose, Twitter’s purchasable statistical service, we believe that the features of Scraawl best serve the purpose of allocating relevant material for the discourse analysis.

V.3.3 Research Questions

The following questions are made out of essentialities posed by Rose’s VDA and in order to address the key questions presented in the aim of this study. They work to, in co-relation with the VDA method help us find what we believe are the most crucial conclusions from the analysis.

1. How do the institutional boundaries and discourses of social media, and Twitter specifically correlate to the construction of the meaning of mindfulness within the sources? What interdiscursive and intertextual connections can be made?

2. What interpretative repertoires can be identified within the sources and how do the construction of the meaning of mindfulness relate to them?
3. *Examining the effects of truth from a Foucauldian perspective, what truths about mindfulness do the sources argue for and what effect does it have on its discourse?*

**VI. Research Results and Analysis**

Two separate studies of qualitative data are conducted in this chapter. The first one is a Critical Discourse Analysis of articles posted and shared on Twitter and the second one is a Visual Critical Analysis of images on Twitter. The results obtained from each analysis will be compared in the next chapter.

**VI.1 Retweeted Articles on Mindfulness**

The first subsection of this chapter deals with journalistic articles on mindfulness presenting different perspectives. Thus our interest lies in finding whether multiple discourses emerge in the articles and how information on mindfulness circulates throughout several texts. Copies of the three articles are available as appendices 1, 2 and 3.

**VI.1.1 Textual Analysis**

Following Fairclough scheme of analysis, we will investigate how the chosen articles construct representations of the reader (Phillips, L & Jørgensen 2002, p. 83 ff. using linguistic tools and focusing on transitivity and modality as grammatical elements. A close analysis of the text, centred on wording and grammar gives "insight into the ways in which texts treat events and social relations and thereby construct particular versions of reality, social identities and social relations" (ibid.).

In the Oxford article passive forms are not frequent, but when used, they enhance the formality of the discourse. One may expect for the validity of the research results to be stressed through the omission of agents and processes and focusing on the effect instead. However, the results are presented cautiously in this case, with a focus on processes: "the nine trials were conducted" (www.ox.ac.uk 2016), "MBCT was delivered" (ibid.), "MBCT was compared" (ibid.).
In terms of modality, "the mass media often present interpretations as if they were facts, partly by using categorical modalities and partly by choosing objective rather than subjective modalities. The media’s use of categorical, objective modalities both reflects and reinforces their authority" (Phillips, L & Jørgensen 2002, p. 84). However, the Oxford article is more assertive in presenting how the research was conducted than in what the results are. Therefore, moderate modalities are employed in the title: "MBCT linked to reduced risk of depression relapse" (www.ox.ac.uk 2016) where "linked" is being used instead of "proved", and in the text: "MBCT [...] can help" (ibid.) along with verbs such as "suggest", "tend", "may", when arguing for positive results. Categorical modalities are prevalent in the beginning of the article: "Major depression is a significant public health problem" (ibid.), "MBCT is a group-based psychological treatment that helps people change the way they think and feel about their experiences [...]" (ibid.).

What the two articles arguing for a biased representation of mindfulness have in common with the pro-mindfulness one is the use of non-categorical modalities when presenting results. The inc.com and Scientific American articles compensate through various discourse strategies for the lack of a reliable scientific discourse due to inconclusive results: "In the McGill team's analysis, the 30 trials with the most statistical power showed no over-reporting of positive results" (Nowogrodzky 2016) and "in the McGill research, the larger-scale trials didn't show any excessive positivity. It was the smaller-scale trials that emitted ineffable optimism" (Matyszczuk 2016). The former makes use of intertextuality, quoting a researcher that has not participated in the study, but whose statements contain categorical modalities, overshadowing the moderate assertions mentioned previously: "A bias toward publishing studies that find the technique to be effective withholds important information from mental-health clinicians and patients, says Christopher Ferguson, a psychologist at Stetson University in Florida" (Nowogrodzky 2016). The latter engages with the reader by addressing questions: "Is the effect of mindfulness exaggerated?" (Matyszczuk 2016), "After all, who wants to read a neutral story?" (ibid.) and taking a personal stance when answering "Well, it seems that..."(ibid.), "Every time a new idea for being happy comes along, I feel uneasy" (ibid.). This form of engaging audiences is similar to the personification of the institution, where the reader simulates a conversation which contributes to the creation of a personal and
apparently equal relationship between the two" (Phillips, L & Jørgensen 2002, p. 84). These journalistic discursive strategies have the persuasive function of convincing the reader about the truthfulness of research results interpretations. However, they do not seem to be as strong as the scientific or the academic discourse that prevails in the Oxford article.

VII.1.2 Discourse Practice

The article tweeted by Oxford University titled Mindfulness-Based Cognitive Therapy linked to reducing depression relapse argues for the benefits of mindfulness using a scientific and academic discourse that draws authority mainly from study results: "38% of those who received MBCT had a depressive relapse within 60 weeks' follow-up, in contrast to 49% of those who did not receive MBCT" (www.ox.ac.uk 2016) and "Data from these trials showed that those who received MBCT, and in many cases tapered or discontinued antidepressant medication, were 23% less likely to relapse to major depression than those who continued on antidepressants and did not receive MBCT" (ibid.).

Apart from the quotes of the researchers who conducted the studies, intertextuality is inexistent. "According to Fairclough’s theory, a high level of interdiscursivity is associated with change, while a low level of interdiscursivity signals the reproduction of the established order" (Phillips, L & Jørgensen 2002 p. 82 ff.). Thus the main arguments throughout the article revolve around the positive applications of mindfulness, using the scientific discourse. Mindfulness is being discussed in the context of public health, referring specifically to clinical depression. The first two paragraphs, however, are in dissonance with the rest of the text, as they draw on an advertising discourse through vague formulations as "the largest meta-analysis so far" (www.ox.ac.uk 2016), "for the millions of people who suffer recurrent depression it provides a treatment choice" (ibid.), "significant health problem" (ibid.) not supported by any research data, that seem to encourage the reader to ‘buy’ into the mindfulness positive effects. Their impact also resembles a reassurance for the reader that all the following information is of great importance. Therefore, it might be only a rhetorical strategy for capturing attention, rather than for numbing the readers' critical approach of research findings. Nevertheless, this effect is worth mentioning, especially because the second object of our analysis is an article
that brings arguments against positive research results on mindfulness, for the alleged reason of being preferred by media to the negative ones.

In order to contrast discourse practices, we will next disseminate the article published on inc.com, as its discourse can be easily differentiated from the Oxford article, thus putting in antithesis the pro-mindfulness and anti-mindfulness stances. The article is titled *Mindfulness May Not Be All It's Cracked Up to Be, Science Says* and the only common feature with the Oxford article is its reliance on research results. The discourse is different, however, because of its opinion article characteristics, such as the use of the first person singular pronoun, while the tone is informal and the rhetoric ironical. Adding "science says" at the end of the title suggests a mocking undertone that can be identified throughout the whole article.

The intertextuality level in this article is high, as the author begins with a description of mindfulness in order to de-construct later what he calls "one technique [to achieve happiness] that some people swear by [mindfulness]" (Matyszczyk 2016). The introduction passage in this article is as vague as the Oxford article's beginning. Thus the reader is being introduced to the concept of mindfulness through a pseudo-scientific discourse that introduces the reader to the mainstream view of the concept in media: "the idea of staying in the present moment, rather than torturing yourself about things that might be out of your control. It's the idea of not judging your thoughts and feelings but just being in the right now" (ibid.). In our attempt to find the source of the current mainstream mindfulness definition we learned that "the commonly used definition of mindfulness as intentional, non-judgmental awareness was introduced by Kabat-Zinn to describe training in the Mindfulness-Based Stress Reduction program" (Bishop 2004, p. 231). Psychology is one of the discourses that the inc.com article draws upon, through intertextuality. It uses both journalistic and scientific discourses in contesting the current opinions about mindfulness, by claiming that "mindfulness research that gets negative results may not actually get published" (Matyszczyk 2016) according to a study conducted at the McGill University in Montreal. However, this article dedicates more space to personal opinions than research results and the quality of interdiscursivity diminishes due to confusing statements such as "The problem is that sometimes, when larger-scale trials are conducted in the hope of confirming smaller-scale trials, they don't." (ibid.) Where the context does not clarify what research the author refers to. This vagueness might lead
to a nullification of the premise: that positive results on mindfulness research are preferred to the negative or neutral ones (ibid.).

The two articles arguing against positive results with mindfulness quote the same study, which suggests that there is little research in this direction to challenge the mainstream discourse. Furthermore, at the discourse practice level, the main observation when comparing the texts is that criticism of mindfulness builds and it is built around a weak discourse for two reasons. Firstly due to inconclusive research results and secondly due to their poor presentation (at least the inc.com article), compared to the Oxford text whose more efficient use of scientific and academic discourses could potentially increase its reliability. However, the discursive strategies may cast different results on readers depending on their educational formation, as scientific discourse requires a certain level of education in order to become understandable and appealing to social media users.

VII.1.3 Social Practice

The third layer of analysis in Fairclough’s model is represented by social practice. Firstly, we need to explore the relationship between the discursive practice and its order of discourse (Fairclough 1992b, p. 237). Furthermore, we will look at how the discourses are distributed and regulated across texts (Phillips, L & Jørgensen 2002, p. 83). Secondly, we will identify the partly non-discursive, social and cultural relations and structures that constitute the wider context of the discursive practice – the social matrix of discourse, in Fairclough’s terms (1992b, p. 237). These relations and structures are to be discussed more extensively in the Discussion chapter, drawing on other theories, social and cultural, in order to shed light upon the social practice in question (ibid.). Earlier research on mindfulness and Foucault’s ideas on subjectivity and power will complement our analysis results.

Two orders of discourse are intertwined in all of the three articles. The academic or scientific discourse is being borrowed and used in the journalistic discourse. The Oxford article mainly presents research results, thus making use of journalistic strategies in order to reach and engage readers who might not be necessarily familiarized with scientific terminology.

MBCT is a treatment developed to help people who have experienced repeated bouts of depression by teaching them the skills to recognise and to respond
constructively to the thoughts and feelings associated with relapse, thereby preventing a downward spiral into depression. The MBCT course consists of guided mindfulness practices, group discussion and other cognitive behavioural exercises (www.ox.ac.uk 2016).

Given the popularity of mindfulness we can state that the Oxford article reinforces the status quo and it is doing it successfully through textual strategies. By contrasts, the other two articles challenge the current positive findings on mindfulness, acting as a reaction against the dominant discourse. The most retweeted out of the two is the one that relies more on the scientific discourse:

There’s a little too much wishful thinking about mindfulness, and it is skewing how researchers report their studies of the technique [...] A bias toward publishing studies that find the technique to be effective withholds important information from mental-health clinicians and patients (Nowogrodzky 2016).

and considerably less retweeted the one that is less academic and more of an opinion article:

We're all being told to be mindful if we want to be mentally healthy. New research suggests this might not be so good [...] A new piece of research, however, reveals a tiny kink in the mindfulness machine [...] That's the thing with new ideas. When science--and its untrustworthy sibling, money--begins to experience the excitement of a breakthrough, there's surely a temptation only to publish the good news, not the bad (Matyszczyk 2016).

Therefore, users might find the scientific discourse to be a more reliable source of information, being more inclined to share it. Nevertheless, the most retweeted out of the three is the one in favour of mindfulness. This suggests a preference among Twitter users for arguments that further reinforce the established discourse, especially if it is proven scientifically.

The two types of Foucauldian ‘subjects’ that are created and exist within the discourse can be identified in the texts that we have looked at so far. On the one hand, the Oxford article, due to a prevalent scientific content positions itself ‘above’ the readers, objectifying them. On the other hand, another form of objectification appears in the article published on inc.com, where through rhetorical questions: “Is the effect of mindfulness exaggerated? [...] What might be at the heart of this apparent anomaly? [...] After all, who wants to read a neutral story?” (ibid.), but also the use of the first person singular: “Every time a new idea for being happy comes along, I feel uneasy” (ibid.), the readers are encouraged to become aware of their own position regarding mindfulness, or even more, to adopt the author’s opinion. In conclusion,
both the anti and pro mindfulness discourses create subjects with a particular stance concerning the mindfulness ‘debate’.

All things considered, we have to be cautious in assuming that Twitter users are either pro or anti mindfulness due to a main reason that will be discussed further in the next section, in relation to earlier research: an inconsistency in defining the concept.

VII. 1.4 Results

Is there a mainstream discourse around mindfulness in journalistic articles?

The results after disseminating textual representations of mindfulness in social media are meant to show whether the communication process is being controlled by a particular group of people. We managed to identify the mainstream discourse (in the Oxford article), at least by contrasting it with attempts to contest it (the other two articles). In Foucauldian terms we can only state that there is a dominant discourse ingrained with power, as long as there is a resistance to it, which was confirmed in our textual material.

What is the dynamic between discursive and non-discursive spheres in the textual representations of mindfulness on Twitter?

There is however an interesting dynamic in all the articles, around a shifting definition of mindfulness. In other words, the concept or the discursive dimension of mindfulness is still up to debate in social media, because its representations do not concur on what the practice or the non-discursive dimension is.

How do power relations and the regime of truth work in representations of mindfulness?

Conclusive research on mindfulness outside the realm of its clinical applications is scarce, which is also suggested by the use of non-categorical modalities when the articles present them. It is therefore safe to refrain from developing any further on the power relations between text and readers, as
inconclusive research results lead to the weakening of the discourse. This leaves open to debate both the applications and the success of mindfulness allowing for interpretations and a straggly discourse in social media.

What is the influence of intertextuality on the construction of meaning(s)?

Discourse analysis used together with representation theories revealed how the meaning of mindfulness is produced and exchanged between members of a culture (Hall 2013, p. 171) that is in our case social media users of an English speaking community. According to our quantitative data gathering results, there is a central community constituting of circa 18 per cent, exposed to the same material through their Twitter feeds. The rest of the users, a big majority of individual accounts (circa 80 per cent) are not visible in the others Twitter feeds unless they are connected through other hash tags. Basically, the material that we had access to is the same material that we know at least 18% of the people who searched for mindfulness have been exposed to. So minimum a quarter of the Twitter users interested in mindfulness will have access to the same material. More than that, two of the articles use the same research, which indicates that there is not a great variety of practices under the name of mindfulness, but rather a variety of interpretations, as we have already noted that the discourse is partially vague.

A disagreement on the success rates of mindfulness practices permeates all the articles. That perpetuates the polymorphism of mindfulness, which we identified as the cause of different representations. One article refers to mindfulness as a new idea for being happy, while another one refers to psychology in describing it as a practice that might replace antidepressants in the future.
VI.2 Visual Discourse Analysis

Since these images all contain textual quotes that possibly carry more weight and centrality than the visual form of the image itself they could have been treated through a textual based discourse analysis. However, as Kress & van Leeuwen points out, while it is more true to say that meanings belongs to culture, rather than certain types of semiotic modes, they will be realized differently depending on how they are communicated (2006, p. 2). The particular stylistic language, or interpretative repertoires within the material argues for the necessity of a VDA, rather than a CDA.

When studying the visual language saturated on Twitter, a particular interpretative repertoire, or mini-discourse as Rose names them (2013, p. 215) can be identified immediately. Not only within the three sources we have selected for the VDA, but also within a big majority of our sample. As Figure (4) below shows, out of the 40 most retweeted images only four (circled) images do not carry digitally embedded texts. We believe that analysing the relationship between text and imagery in this semiotic mode will bring central value to our understanding of the discourse, as it seems to be heavily related to this imagery according to our data sample. The sources we have chosen to analyse do thusly not only represent, the most saturated, or “particularly productive” (Rose 2013, p. 199) but also the “particularly interesting” sources (ibid.).
Figure 4 – Thumbnails of data sample (scraawl.com 2016)

Figure 5 – Taylor Swift quote (Twitter.com 2016a)
VI.2.1 Looking With Fresh Eyes

These three images that are being analysed are the most retweeted ones from our particular data sample. For the convenience of this analysis, each image will be referred to as their respective number (5), (6) and (7) henceforth. Making an effort to ignore the images intertextuality looking at them first objectively as suggested by in Roses methodology (2013, p. 220), there are a few obvious yet interesting remarks to point out. All images bear textual quotes of somewhat motivational sentiments. At the first quick glance, they all seemed positive, but reading them more thoroughly I had a drastic change of mind. Reading into each of the following texts individually; (5) “If you are lucky enough to be different, don’t ever change” Taylor Swift” leaves less room for the imagination, since it shows the author of the quote. Inevitably it forces the reader to draw connections on other orders of discourse related to the famous singer. This will nuance their interpretation of the quote. According to Stuart Hall’s representation theory “to represent also means to symbolize […] or to substitute for” (1997, p. 1); arguably the readers’ freedom to speculate in the symbolic meaning gets narrowed by exposing the author, Taylor Swift.

Focusing again on the text within the images, the words “If you are lucky enough to be different, don’t ever change” in (5) can through being motivational build on the assumption that different is bad and bear the purpose of working to counteract
it by contesting it. Figure (6) and (7) are presuming the same where (6) is suggesting that worrying is unnecessary, targets towards someone who is worrying and (7) suggests to its audience that there are multiple walls for them to climb and that the biggest of them is in their mind. What separates (7) from the other two is the way of suggesting the necessity to act in order to *prevail in life*. Namely that the wall must be climbed, while the other two lean more towards ignoring negative sensations and thoughts about and within one’s self. None of the images mention the term mindfulness, in their isolated context within this analysis, and at this stage, excluded from the tweet, profile and other features on Twitter’s website they seem quite distant from the term.

Looking at the image itself and its relation to the text for each of the figures, it is easy to draw connections between them, yet they come in different forms. While (7) directly shows what is likely to be part of a wall, the other two images communicate more symbolical relationships. (6) Illustrates a boy looking into the distance, as if he is in deep thoughts, but it could just as well symbolize loneliness. The imagery behind the text of (5) and (6) is also composed in a way suggesting they have been specifically illustrated and photographed to also contain a quote. Both would have a lot of empty space without any text, making them visually unbalanced. It is likely to say that image and text have been produced together in (5) and (6).

**VI.2.2 Interdiscursivity**

Kress & van Leeuwen bring interesting viewpoints when suggesting that visual communication strives towards becoming less and less a domain of specialists and more one of public communication, inevitably leading towards more rules, visual literacies and other restrictions comparable to what grammar is to written text (2006, p. 2). Moreover, Kress & van Leeuwen relates this suggestion to their discussion on conceptual representations. They argue that networks allowing multiple interconnections between participants, such as social media websites make it hard for an audience to form a coherent view of its content (2006, p. 84 ff.). Twitter is a platform where the material that is heaviest saturated and makes up the centrality of attention is not commonly invoked mainly by an institution, but by the interactivity and interconnectivity of the audience. The interpretative repertoires of the three
images are likely to share connections with such social media or Twitter discourses based on these functions. As the graphical illustration of retweets of #mindfulness showed in the statistical analysis, even if one account (@911well) is responsible for a substantial amount of the Tweets, a vast majority of the tweets still (roughly 80 per cent, as shown in Table 3) share no direct links with one another. Yet a similar visual language can be identified within the sample, arguing for similar connotations for #mindfulness tweets. Moreover, a larger natural way of things as Rose puts it (2013, p. 215) of heavy saturated imagery on social media consists to a quite substantial amount of similar image/text relationships. Memes are an example of this.

What is interesting for this analysis is not necessarily the discourses of social media or Twitter themselves, but their influence on the perceptions of mindfulness. Taking into consideration that none of the images (5), (6) or (7) actually contains the term mindfulness in their texts, but are related through the hashtag published by the user in the Tweets as follows.

(5) @911well: Be yourself.. Don’t change… #beyourself #mindfulness (Twitter.com, 2016a).
(6) @911well: Worry is a total waste of Time.. #worrying #mentalhealth #mindfulness (Twitter.com, 2016b).
(7) @lose_weight_uk: The biggest obstacles are the ones that our mind creates.. Practice Yoga.. It will calm your thoughts #mindfulness (Twitter.com, 2016c).

Looking at the three images in relationship to the tweets, these users have all used the #mindfulness hashtag in freely fashions, all interpreting it somewhat differently. Notably hashtags in general tend to be used in an abstract way, but ignoring that for now, we can argue that: the strongly visible interdiscursivity in the material in correlation to contrasted appreciation of #mindfulness speaks for a wide and loose understanding of its meaning. While similarities and alignments between for example practicing yoga, #mentalhealth, #beyourself and mindfulness can be drawn to a certain extent, they all point towards a much wider discourse. One of the articles of the textual CDA defines mindfulness as “the practice of being aware of thoughts and feelings without judging them good or bad” (scientificamerican.com 2016-05-18). These three tweets don’t necessarily consider mindfulness to be a practice at all.
VI.2.3 Effects of Truth

Foucault’s concept of truths claims that “power relations permeate all levels of social existence and are therefore to be found operating at every site of social life” (Foucault 1980, p. 120). This section is looking specifically at how the three tweeted images together with their tweets exercise truths about mindfulness, from such a Foucauldian perspective.

Connecting back to the symbolic meanings of the three images, they all strive to communicate advice on how to prevail in life in different ways. A notable observation in this analysis is the relationship between the advices given and mindfulness. Do the Tweets suggest overcoming mental walls, worry and bad self-confidence through the practice? Seemingly so, yet the credibility of the hashtag needs to be contested as, users tend to connect several hashtags in order to make Tweets more visible, meaning that these hashtags wont necessarily have any particular meaning to the user tweeting it. Looking at Table 2 from the data sample, we find that out of all tweets somehow related to the term mindfulness, 70 per cent included the hashtag #mindfulness, whilst only 20 per cent contained the term ‘mindfulness’, pointing towards a looser relationship between meaning and hashtags.

On social media platforms herd behaviour, a phenomena described by Zafarani et al. as “when a group of individuals performs actions that are aligned without previous planning” (2014, p. 220) commonly takes place, as the structure of social media platforms, to some extent encourages such behaviour (Kress & van Leeuwen 2006, p. 84). What makes discourses that are acting on social media so interesting is partially how herd behaviour and structural coding plays vital roles in the long term persuasion and establishment of truths, but leaving this aside for now and looking only at the tweets, we can establish that:

- All images in combination with their respective tweets use mindfulness as a tool to some extent in order to communicate their messages
- All tweets to some extent see mindfulness as a way of overcoming obstacles or concerns
- (5) and (7) orders their audience to act or be in a certain way in correlation with mindfulness whilst (2) suggests mindfulness as an alternative stage of being worried.
In an isolated perspective pleads to positions of power from the tweets can surely be identified. None of the tweets or their images communicates explanatory or critical information, but instead aim to establish what they consider to be truths.

Kress & van Leeuwen argues that absolute truths of representations cannot be established in social semiotic theory, but rather truths of *more or less credibility* (2006, p. 155). While as stated above, isolated from their context the texts on the images can be interpreted as striving to portray absolute truths, drawing on their interdiscursivity and context will affect the credibility of these truths. @911well, the most influential channel in our data sample states its belief in mindfulness in the profile description. It is a channel that has no intention to critically discuss the practice of mindfulness, but rather *spread the message*. Users reading into tweets and images from @911well have access to the channel’s information and can make assumptions regarding its credibility relying on that information. The modality of a Tweet from @911well or similar channels is never claimed or expected to be as high as for example that of a journalistic publication since everyone can have a Twitter account. Such a contextual awareness revokes credibility to truths proclaimed in the images and tweets (5), (6) and (7).

**VI.2.4 Results**

This section aims to directly answer questions raised in the methods chapter through the conclusions and observations made in the analysis.

(1) *How do the institutional boundaries and discourses of social media, and Twitter specifically correlate to the construction of the meaning of mindfulness within the sources? What interdiscursive and intertextual connections can be made?*

The relationship between the lack of interconnectivity between users in the data samples and some of the interpretative repertoires visible in the imagery and text indicates a likelihood of acting interdiscursivity through the materials as channels not connected to each other tweets mindfulness imagery carrying similar visual stylistics. The complexity of social media network structuring makes it very hard to directly relate orders of discourse to one another. Even though they are ultimately “modelled on forms […] [such as] taxonomies and flowcharts” (Kress & van Leeuwen 2006, p. 155).
Moreover, exactly how search and filtering functions work on Twitter is not public information, leaving all the details of the search and filtering functions impossible to backtrack.

Looking at a Twitter, social media and as broad as Internet culture discourses in general however, there are links to be identified. Memes is one popular concept sharing similar combinations of text and imagery as in our sources. My own experience with Instagram has exposed me to tons of content arguing in similar manners as well; through quotations pasted on harmonic or related images. Taking the vague relationship to mindfulness into consideration from our sources, one can ask if they are part discourses of mindfulness drawing on other discourses, or if its the other way around.

What can be established by this analysis is that there is no clear unified concept for the meaning of mindfulness amongst the sources; yet, their scattered viewpoints and loose definitions all seems to go uncontested as truths by their audience.

(2) What interpretative repertoires can be identified within the sources and how do the construction of the meaning of mindfulness relate to them?

In our material there are quite a few rather strong repertoires to be identified, notably not only in the three images being analysed but taken from Figure (4) as well; we suggest that the prime repertoires are:

- Tweets use strong language, ordering readers to act or believe in their statement.
- Tweets all consider mindfulness a tool to overcome negative emotions or obstacles.
- All images communicate symbolical messages in relation to their embedded texts.
- Tweets all carry quotations of obstacles one must overcome.

Focusing on the visual aspects, these tweets, somewhat confirmed in Figure (4) are acting within a discourse that may not be mindfulness-specific but absolutely
influences the symbolic representation of what mindfulness is for its audience. Hall argues, “Representation is an essential part of the process by which meaning is produced” (2013, p. 171) and from this perspective we can say that mindfulness on Twitter carries a relationship with all of the points above. But as stated in the previous question, it lacks of common specified meaning, which arguably does reflect in the interpretative repertoires. While the semiotic modes carry a particular visual and textual style, and way of communicating a message, the message tends to be of symbolic and abstract kind. What does it really mean to: be different, climb your mental wall or not be worrying? How specifically does one go about [not] doing that? While all tweets provide approaches on how to tackle to their problems, they do not provide actual solutions. The lacklustre understanding of mindfulness on Twitter may not simply allow, but even encourage productivity of symbolic and abstract form. These sources communicates not as if the lack knowledge on the meaning of mindfulness, but as if mindfulness is a state of being, or an approach to life, not a specific practice.

(3) Examining the effects of truth from a Foucauldian perspective, what truths about mindfulness do the sources argue for and what effect does it have on its discourse?

As discussed in the chapter Effects of truth, images (5), (6) and (7) claims powerful positions in the discourse through the way they communicate. From a Foucauldian perspective “knowledge, once used to regulate the conduct of others, entails constraint, regulation and the disciplining of practices” (Hall 2013, p.188) and, as shown in the data sample, the three images are the most influential ones and moreover, two of them were produced through the most influential channel (@911well). This relationship speaks of a claim of power and knowledge from our sources and seems from our sample to have an impactful effect on the discourse of mindfulness on Twitter.

The images loose some of this credibility when viewed in a bigger context. The textual analysis that was also based on tweets showed us highly contradictive opinions on mindfulness through publications of articles. Looking profiles and descriptions of the most influential accounts from our data sample, none of them claims authority or knowledge by presenting any particular expertise.
@lose_weight_uk – Helping you lose weight with workout tips, healthy diets, and more (lose_weight_uk, 2016)

@911well – How u handle Stress has an effect on ur Health – Mental Health issues r the great epidemic of this generation – Mindfulness – Exercise – #MentalHealth (911well, 2016)

Above are the profile-descriptions of the twitter accounts posting images (5), (6) and (7). Their way of writing does take a truthful stance, but lack credentials in form of education, work experience or acknowledgements. Twitter is commonly used in civic cohesions and is often used to express personal opinions and conduct social activity. Unless an account is publicly recognized or claims authority in its description it will not tweet under the same credibility as a journalist would within a newspaper.

The material in this analysis does argue for mindfulness being a way to overcome mental problems. Stylistically they do so in a rather authoritarian way, yet, they operate within a discourse that lacks credibility with a general audience.

VII. Discussion

Taking out of consideration that the analysis treats different semiotic modes with different abilities to communicate meaning, there are both outspoken similarities and differences in the results. The CDA does not find the same unified of a positive view on mindfulness as the VDA does, yet both suggest lacklustre indicators of truth and power regimes conveyed through the material. This leaves room for a certain extent of interpretation amongst readers.

There are plenty of connections to be drawn between this vague and contradictory relationship and the functions of Twitter. Reflecting on our material as part of a community can create inaccurate results. Typically a community, online as offline, shares interests or cultural values that build and evolve upon the discourse. For example, in a soccer-related community most members are very likely to have some interest in soccer. Our material however, was collected through the search of a specific term on the huge platform Twitter. It holds thousands of different communities. This means that contradictive arguments in our analysis can spring from sources, cultures and communities that are completely disconnected from one another. In discourse analysis an important factor are the missing bits in the material, or ‘what
is not there’. However, access to Twitter data works through hidden algorithms and we cannot be fully aware of what we may be missing when searching for ‘mindfulness’ tweets. Additionally, VDA identifies a positivistic majority dominating the material that does not ensure this majority on Twitter in general. Common users would not express an opinion in social media unless it concerns them directly. Had we actively reached out and asked a random sample of Twitter users about their take on mindfulness the result would likely be different. We highlight this in order to clarify why it is hard to point out power relations between producers and audiences in our material.

Strictly referring to our findings, both VDA and CDA confirm the presence of a pro-mindfulness discourse in texts and images. VDA’s results show that most of the images promote a positive view, while CDA’s results indicate that the positive view is validated by scientific discourse.

Both VDA and CDA identified faulty or inexistent presentation of relevant research results to support some of the analysed statements. In VDA all sources see mindfulness as an approach to overcome concerns or obstacles in life, though they provide no explanation to how or why. In CDA the reader is subjected to scientific arguments pro-mindfulness but they are usually presented in a non-categorical way, which leaves room to interpretation for readers/users. Judging by the representations of mindfulness through the texts that we looked at, mindfulness is placed in the realm of abstract concepts (as opposed to concrete concepts such as ‘chair’ or ‘table’). In the scientific discourse mindfulness is usually referred to as a practice used in psychology in order to improve mental health. However journalistic articles and images bring the concept into social media with a twist: distorted definitions that suit the perspective of the author/user who produced the text. Nevertheless, research does not limit mindfulness either to one single practice or way of doing it, which is another reason for multiple interpretations and uses. In VDA the material seems truthful and uncontested within its own community, but its degree of impact within the discourse of mindfulness on Twitter is both questionable and hard to make out. Furthermore, the shifting definition of mindfulness, as it turns out from all the materials, may have its roots in non-discursive spheres. We concluded that it is caused by the absence of a consensus on the practices and objects of mindfulness—as observed especially in the CDA materials that come up with various understandings of the mindfulness practice.
VIII. Conclusion

This study address a gap identified in the study of mindfulness through a critical approach from a media and communication perspective of how mindfulness is represented on the social media platform Twitter. Through discursive analyses of visual and textual material on Twitter, the study aimed to answer the three questions; ‘How is the meaning of mindfulness constructed on Twitter?’ ‘Are there any power relations in the construction of discourse and if they exist, how do they shape the discourse?’ ‘How does the reproduction and circulation of discourse shape its meaning through intertextuality?’

Pinpointing a unified meaning of mindfulness on the off of the results from our analysis is not eligible. Though the material indicated a positive orientation towards mindfulness it lacked unified perceptions of the terms meaning. The complexity of the structural layout and size of Twitter nullifies or dilutes possibilities to draw bigger conclusions based from interdiscursive connections.

Power relations are to a degree identifiable within the discourse despite its lack of a main institution. On Twitter some channels sees substantially more saturation than others and claim more influence. What effect this influence has on the discourse is harder to establish, because of the scattered view of the meaning and effect of mindfulness.

While a strong unification was identifiable in the visual material that is to some extent impactful on the discourse, it seems to share strong intertextual connections to other social media discourses. Twitter’s restrictions on all semiotic modules may carry more responsibility for what shaped the interpretative repertoires. But the visual unification doesn’t permeate through the textual material, where the success rates of mindfulness practices were disagreed. The visual material is arguably a contributor to this disagreement, as it communicates mindfulness in abstract and symbolic meanings.
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X. Appendices

X.1 Mindfulness-Based Cognitive Therapy linked to reduced risk of depression relapse

The largest meta-analysis so far of Mindfulness-Based Cognitive Therapy (MBCT) for recurrent depression has found that MBCT is an effective treatment option that can help prevent the recurrence of major depression. The study used anonymised individual patient data from nine randomized trials of MBCT. It suggests that for the millions of people who suffer recurrent depression it provides a treatment choice and an alternative or addition to other approaches such as maintenance antidepressants.

Major depression is a significant public health problem. Without ongoing treatment, as many as four out of five people with depression relapse at some point. MBCT is a group-based psychological treatment that helps people change the way they think and feel about their experiences and learn skills that reduce the likelihood of further episodes of depression. This meta-analysis, included data from trials that compared MBCT to usual care as well as to other active treatments such as maintenance antidepressants – the current mainstay approach to prevention of depressive relapse.

Across the nine trials, 38% of those who received MBCT had a depressive relapse within 60 weeks' follow-up, in contrast to 49% of those who did not receive MBCT. Taking the time to relapse into account, people who received MBCT were 31% less likely to relapse during the 60-week follow-up compared with those who did not receive MBCT.

The inclusion of individual patient data made it possible to demonstrate that a person's age, sex, level of education and the age at which they first became depressed did not significantly influence the effectiveness of MBCT, suggesting that this approach is useful for a broad range of people. Those people who experienced more symptoms of depression when they entered treatment tended to show greater benefits from MBCT compared with other treatments. Clinical trials systematically record the occurrence of adverse
events and negative outcomes such as death or hospitalisation for any cause. The study found no evidence of adverse events associated with MBCT when delivered by well-trained teachers in a clinical context.

Four of the trials that contributed to the meta-analysis compared MBCT combined with continuation, tapering, or discontinuation of antidepressants to continued maintenance antidepressant treatment alone. Data from these trials showed that those who received MBCT, and in many cases tapered or discontinued antidepressant medication, were 23% less likely to relapse to major depression than those who continued on antidepressants and did not receive MBCT.

Reflecting on the findings, Richard Byng, Professor of Primary Care, University of Plymouth and one of the co-authors, said: 'While the evidence is from a relatively small number of trials, it is encouraging for patients and clinicians to have another option. There was insufficient data to examine which types of patient or context predict who would benefit most. This, along with varied individual study and wide combined study confidence intervals, means that clinicians need to be cautiously optimistic when tapering off antidepressant medication, and treat each patient as an individual who may or may not benefit from both MBCT and other effective treatments.'

Lead author, Willem Kuyken, Professor of Clinical Psychology at the Oxford Mindfulness Centre said: 'This new evidence for Mindfulness-based Cognitive Therapy, collated from individual patient data across nine randomised trials is very heartening. While MBCT is not a panacea, it does clearly offer those with a substantial history of depression a new approach to learning skills to stay well in the long-term. It offers people a safe and empowering treatment choice alongside other mainstay approaches such as cognitive-behavioural therapy and maintenance antidepressants. We need to do more research, however, to get recovery rates closer to 100% and to help prevent the first onset of
depression, earlier in life. These are programmes of work we are pursuing at the University of Oxford and with our collaborators around the world.'

About MBCT

MBCT is a treatment developed to help people who have experienced repeated bouts of depression by teaching them the skills to recognise and to respond constructively to the thoughts and feelings associated with relapse, thereby preventing a downward spiral into depression. The MBCT course consists of guided mindfulness practices, group discussion and other cognitive behavioural exercises. Participants receiving MBCT typically attended eight 2-2.5 hour group sessions alongside daily home practice.

About the analysis

The nine trials contributing to the current study were conducted in the UK, Belgium, Canada, the Netherlands and Switzerland. The current analysis involved data from 1258 participants from these trials. In all the trials, MBCT was delivered according to the published treatment manual and all trials included people with a history of recurrent depression who were currently in full or partial remission from depression. In each trial, MBCT was compared to either usual care or a non-MBCT approach, typically maintenance anti-depressants. Only one trial compared MBCT to another psychological treatment.

An online blog *Mindfulness-based cognitive therapy for recurrent depression: What do we know? What does it mean? Where to next?* provides more detailed context and interpretation of this study and can be found at [http://oxfordmindfulness.org](http://oxfordmindfulness.org). The blog provides more detail and interpretation of the key studies bearing on the question of MBCT's effectiveness, especially compared with the mainstay current approach - maintenance anti-depressant treatment. For example, another recent trial by Huijbers and colleagues (2016, *British Journal of Psychiatry*), showed that
where all patients receive MBCT alongside antidepressant medication, subsequent tapering of antidepressants increases risk of relapse to depression.


**X.2 Power of Positive Thinking Skews Mindfulness Studies**

*Trials of mindfulness to improve mental health selectively report positive results*

There’s a little too much wishful thinking about mindfulness, and it is skewing how researchers report their studies of the technique. Researchers at McGill University in Montreal, Canada, analysed 124 published trials of mindfulness as a mental-health treatment, and found that scientists reported positive findings 60% more often than is statistically likely. The team also examined another 21 trials that were registered with databases such as ClinicalTrials.gov; of these, 62% were unpublished 30 months after they finished. The findings—reported in *PLoS ONE* on April 8—hint that negative results are going unpublished.

Mindfulness is the practice of being aware of thoughts and feelings without judging them good or bad. Mental-health treatments that focus on this method include mindfulness-based stress reduction—an 8-week group-based programme that includes yoga and daily meditation—and mindfulness-based cognitive therapy. A bias toward publishing studies that find the technique to be effective withholds important information from mental-health clinicians and patients, says Christopher Ferguson, a psychologist at Stetson University in Florida, who was not involved in the study. “I think this is a very important finding,” he adds. “We’ll invest a lot of social and financial capital in these issues, and a lot of that can be misplaced unless we have good data.” –added quotes in order to validate the discourse (quoting a specialist even if he was not involved in the study)
For the 124 trials, the researchers calculated the probability that a trial with that sample size could detect the result reported. Experiments with smaller sample sizes are more affected by chance and thus worse at detecting statistically significant positive results. The scientists’ calculations suggested that 66 of 124 trials would have positive results. Instead, 108 trials had positive results. And none of the 21 registered trials adequately specified which of the variables they tracked would be the main one used to evaluate success.

This doesn’t necessarily suggest that none of the mindfulness treatments work, says study co-author Brett Thombs, a psychologist at McGill and at the Jewish General Hospital in Montreal. “I have no doubt that mindfulness helps a lot of people,” he says. “I’m not against mindfulness. I think that we need to have honestly and completely reported evidence to figure out for whom it works and how much.”

Trials with larger sample sizes—and thus more statistical power—would be an improvement. In the McGill team’s analysis, the 30 trials with the most statistical power showed no over-reporting of positive results.

The bias towards reporting positive results is pervasive across many types of mental health, psychology and medical research, says Ferguson. For example, the widely popularized theory of ego depletion—that people have limited self-control for decisions—recently failed to hold up in a large replication trial. “A lot of these things are reported to be true, they’re in a TEDx talk,” he says. “Now we’re seeing, when we look at things much more closely, we’ve kind of been bullshitting people [for] a decade.”

He advocates pre-registering studies, in which a journal reviews and accepts a study—including the outcomes that it will measure—before data collection begins. This way, the journal publishes the trial results regardless of whether they are negative or positive.

Without this kind of agreement, journals are more likely to publish only positive results, and scientists need published papers to get funding and tenure. This creates a perverse incentive that does not make sense from a care standpoint. “For the health-care system,” says Thombs, “it’s just as important to know what doesn’t work.”

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X.3 Mindfulness May Not Be All It's Cracked Up to Be, Science Says

We're all being told to be mindful if we want to be mentally healthy. New research suggests this might not be so good.

Is the effect of mindfulness exaggerated?

Every time a new idea for being happy comes along, I feel uneasy.

Happiness is so difficult and ephemeral.

Humans are so fickle that they'll get everything they want and, within seven minutes, be dissatisfied again.

Still, one technique that some people swear by is mindfulness.

This is the idea of staying in the present moment, rather than torturing yourself about things that might be out of your control. It's the idea of not judging your thoughts and feelings but just being in the right now.

There's been much research that suggests mindfulness can lead to robust mental health and joy.

And when research says something works, everyone wants to try it.

A new piece of research, however, reveals a tiny kink in the mindfulness machine.

As Nature reports, researchers at McGill University in Montreal analyzed 124 trials and unearthed a peculiar statistic: the researchers had reported positive results 60 percent more often than, well, statistics say they should have. If mindfulness research followed the patterns of other kinds of research, 66 of the 124 studies analyzed should have been positive. Instead, 108 were.

What might be at the heart of this apparent anomaly?

Well, it seems that mindfulness research that gets negative results may not actually get published.

"I'm not against mindfulness," McGill psychologist Brett Thombs said. "I think that we need to have honestly and completely reported evidence to figure out for whom it works and how much."
That's the thing with new ideas. When science--and its untrustworthy sibling, money--begins to experience the excitement of a breakthrough, there's surely a temptation only to publish the good news, not the bad.

This might be especially true when the theory appears to make so much sense and offer so much hope.

The problem is that sometimes, when larger-scale trials are conducted in the hope of confirming smaller-scale trials, they don't.

In the McGill research, the larger-scale trials didn't show any excessive positivity. It was the smaller-scale trials that emitted ineffable optimism.

Of course, there might be many reasons why some studies aren't published.

Sometimes, scientific publications aren't interested in publishing neutral results.

After all, who wants to read a neutral story? It's like watching a football game where neither side scores. Rhetorical question-effects

On the other hand, those who fund research want it to be published. Why fund things that no one ever hears about? Rhetorical question-effects

There's a certain suspicion, though, at the heart of something like mindfulness research.

Christopher Ferguson, a Stetson University psychologist, told Nature that once people see a supposedly confirmed theory in a TEDx talk, they believe it.

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