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Breaking the Depression Deadlock- Rethinking Depression Globally

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Abstract

According to the WHO (2012), unipolar depressive disorders will be the leading cause of the global burden of disease by 2030, notwithstanding substantial increases in the provision of EBTs for depression. It is seldom remarked that this is odd, since statistical modelling suggests that closing the 'treatment gap' should reduce population prevalence. In an attempt to partially explain this conundrum, we put forward three arguments against the dominant clinical approaches: we argue that the diagnostic construct of depression lacks scientific foundation, and that neither the psychotherapeutic nor pharmacological EBTs are as firmly 'evidence-based' as their proponents claim. We establish that these critical arguments are routinely ignored by most of the leaders in the clinical field. This selective ignorance helps to keep the whole of society in a deadlock when it comes to dealing more effectively with the rising prevalence figures. We suggest that this failure reflects a complex mixture of influences: including the power of the dominant scientific paradigm and the associated notion of 'cognitive dissonance', a set of interlocking professional and economic interests, and a preference for superficially comforting accounts of the origins and nature of personal malaise. Any attempt to break the Depression Deadlock, might have to start with a vigorous interdisciplinary debate about what we understand by 'depression', and about the kinds of research questions that are likely to improve this understanding. Rethinking depression globally, we might need to abandon our faith in treatment, and focus on preventive measures;-which is largely a matter of politics.

Keywords: Depression; EBTs; Scientific paradigm; Media; Cognitive dissonance

Introduction

In 2012 the World Health Organization (WHO) predicted that unipolar depressive disorders would be the leading cause of the global burden of disease by 2030. Disturbing global prevalence figures for depression were published in 2013 and the international public health community pronounced the treatment of depressive mood as an important priority [1]. We were surprised by the WHO prediction and puzzled by these rising prevalence figures, because for decades there has been a consensus within the academic and clinical communities that the multiple causes of depression (and their synergisms) are well understood, and that we have effective evidence-based treatments (EBTs) to tackle the condition. Jorm [2] recently confirmed that prevalence has not decreased, despite substantial increases in provision of treatment and despite the fact that statistical modelling suggests that closing the 'treatment gap' should reduce population prevalence. For those countries in which these treatments are widely available, it is therefore reasonable to expect that the condition should have been kept under control, via the combined use of the allegedly effective prophylactic and curative measures that currently exist. However, in most of those nations that enjoy good quality public health care systems there has been a steady rise in the number of people diagnosed with this malady since the late twentieth century [2,3-5] which suggests that such expectations are misguided. Thus, rates of prescribing of anti-depressant medication in the UK, doubled between 1998 and 2010; and a similar picture has obtained in the US, where eleven per cent of the population aged over eleven are said to take an antidepressant [3, 6-7] reports similar findings for the Netherlands.

The meaning of these trends remains open to question. In the Western world and beyond, culturally sanctioned expectations that self-realisation and lasting fulfilment should be the norm surely contribute to an over diagnosis of major depressive disorder; if only because this pervasive belief in happiness as a right may incline many to regard any sign of despair as an illness, needing to be fixed [8,9]. This notion is encouraged by the advance of drug company advertising aimed directly at consumers (at least in the United States), and by a growing acceptance of a biomedical narrative of human nature and of psychological disturbance; a narrative that often sits-in seeming contradiction-alongside an equally widespread sense that harsh life experiences can engender mental health problems; and that these problems can be eased or cured via talking therapy [7,10,11]. Over the years, clinicians and their distressed patients have become more inclined to reach for a formal clinical diagnosis, where once they would have spoken of ordinary sadness as a legitimate response to troubling events and circumstances [3,11,12].

If people in Western countries (and beyond) have been only too willing to talk about their troubles in the language of the mental health professionals, then a key question is whether or not the sadness that underlies the currently fashionable psychiatric labels has genuinely increased in prevalence in recent decades. There are reasons to think that it might have done. Since the 1980s, most Western societies have seen a large increase in social and economic inequality as the ideology of 'market forces' and the power of international capital has waxed, and as the power of organised labour has waned [13, 14]. Almost universally, the dismantling of publicly owned services and the widening gap between the rich, the middling and the poor has been accompanied by worsening physical and mental health in the general population-and especially amongst the most deprived sectors. These trends are visible in a wide range of physical and mental health

indicators-from reported rates of 'schizophrenia' to diabetes and obesity, for example. They are also evident in forms of experience and conduct that suggest the integrity or otherwise of the polity: including civic participation, reported personal loneliness and distrust within neighbourhoods, accident rates at work, and levels of vandalism, violent crime and suicide [13-15]. These toxic trends have accelerated with the 'austerity' policies pursued by many Western governments since the great recession of 2007, which have amounted to an extended attack upon the livelihoods and wellbeing of ordinary people: leading, in some of the hardest hit nations, to tangible reductions in the longevity of the poorest groups [16].

Given the widespread nature of such problems, psychological and drug treatments for unhappiness could scarcely be expected to make a big difference; although there are advocates who argue that the former, in particular, can do so. In the UK, for instance, the economist and government consultant Richard Layard has been instrumental in the creation of a publicly funded programme in England and Wales, aimed at bringing mainly Cognitive Behavioural Therapy (CBT) to any citizen who feels that they are in need of it. Supporters claim that the scheme, now over a decade old, has been a success. Detractors point out that there are no signs that the project has had any impact upon rates of distress within the general population, or that the treatments provided have proven to be anywhere near as effective as claimed [17]. Indeed, a comparable Swedish project was recently been closed down by the national government that sponsored it, owing to the abject failure of mass CBT on clinical and economic grounds [17].

In sum, in the field of mental health care, there is a wide gap between the dominant theories about the roots, nature and treatment of depression-and what can actually be shown to be the case. In this paper, we argue that this situation has come about for four main reasons. First, because the diagnostic category of depression itself is problematic, second, because most of the 'official' knowledge concerning the effectiveness of psychotherapeutic remedies is flawed, third, because a very similar picture obtains for the clinical research conducted into so-called 'anti-depressant' medication, and finally, above all-because all of these issues are either routinely ignored or dismissed by defenders of the status quo in psychiatry and psychology. In the penultimate section of this paper we consider some explanations for why this is so. We conclude that the mental health treatment field and perhaps society as a whole has arrived at a deadlock situation in regard to how this primary health issue is understood and managed, and that more fruitful critical and scientific perspectives are needed if we are to move beyond the present impasse.

Four Distressing Arguments

First argument: The diagnostic category of 'depression' is incoherent

For almost forty years, the Diagnostic and Statistical Manual of Mental Disorders [18] has been at the centre of mental health care throughout much of the world-and especially in North America, Europe, and in the English speaking countries generally [19,20]. Supporters of the DSM argue that it is well founded in clinical science; and that its checklist-based approach to categorising mental disorder has brought considerable progress to the field of mental health care and treatment in the form of diagnoses that are both reliable and valid. In what follows, we question all of these claims and especially in regard to the diagnostic label of 'depressive disorder'.

A good starting point is to consider the question of the reliability of this nosological category. Can different clinicians, faced with the same distressed patient, agree upon the same psychiatric diagnosis when following the guidelines laid down in the DSM? The controversial studies by Sandifer, Hordern & Green [21] by Rosenhan [22] showed that psychiatric diagnostic tools (e.g. symptom assessment, self-reports, scales, clinical tests, …) were not without flaws and that the reliability of psychiatric diagnostics was poor. In the decades since the inception of the DSM III in 1980, with its checklist approach to mental disturbance-it has been argued that the reliability of the protocol for diagnosis has improved considerably, as the symptom lists have become more detailed and refined [17,19,23-26]. Nonetheless, these academics argue that this improved reliability might be an imaginary proposition. In contrast, in relation to depressive disorders, in a review article Wang & Gorenstein [27] suggest that the Beck Depression Inventory II (BDI-II)-a widely used psychometric instrument based on the DSM diagnostic criteria-shows high reliability and a capacity to discriminate between depressed and non-depressed subjects. However, Vanheule [25] argues that psychiatric diagnoses of-for example-mood disorders are by no means more reliable than the prototypical approach from the first part of the past century. The reliability appears to have increased-not because of improved agreement amongst clinicians about the nature of the 'symptoms' and about how to identify and record them-but because of a biased interpretation of the data from research studies on diagnosis-which reflects a relaxation of the standards for the statistical evaluation of data Vanheule [25]. The tables in Vanheule's book concerning the evolution over the past decades of different norms for evaluating the kappa statistic, speak volumes (Tables 1 and 2). These norms became considerably less stringent over the years, creating the illusion of higher reliability [25]. Similarly, Epstein [28] notes that the BDI was originally standardised against subjective (and therefore scientifically unreliable) clinical judgements, and that the failure to rectify this foundation upon sand must cast doubt upon all descendent versions. However, sceptical voices like these are routinely ignored or dismissed within the mental health treatment literature [7;17,25,29,30].

Furthermore, there is the question of the diagnostic validity of the label 'clinical depression', wherein the conferment of the category upon the sufferer should provide accurate prognosis and a set of helpful treatment recommendations [31,32]. To be valid, a diagnostic category is customarily taken to point to an identifiable pathology within the body-which can be readily identified via symptoms and signs: in this sense, validity presupposes reliability. According to current psychiatric opinion, the core of depression is constituted by a disturbance of mood and feeling, typically linked with negative thoughts (or 'cognitions'), self-judgments, and emotions-such as shame, worry, guilt and anxiety. Bodily or vegetative disturbances may be included as optional extras-ranging from loss of weight to insomnia, and a retardation of movement. However, the tendency is to focus on the cognitive aspects of depression, especially when it comes to psychological therapies [33]. Despite these dominant views however, affective or cognitive symptoms are not seen in every patient complaining of depression, and in many countries, including Greece, Nigeria, China and India, the majority of depressed people seek medical help on the basis of physical complaints [34-36].

As far back as 1970, Sandifer, Hordern & Green exposed problems concerning the validity of the diagnosis of depression. Because validity presupposes reliability, the Rosenhan study [22] also-be it indirectly-challenges the validity of psychiatric diagnoses. Decades later, [3,36,37] all of which deal with the topic of validity in their different ways,

conclude that the validity problems persist. Verhaeghe [19] and Moloney [17] clarify that there are no objective diagnostic tests such as x-rays, brain scans or blood analyses that can confirm the presence of-for example-the diagnostic label 'clinical depression'. In the words of one of the architects of the DSM, the American psychiatrist, Robert Spitzer-mental illnesses such as depression are created by committees and they are 'the only form of disease that can be caught by word of mouth' quoted in Moloney [17] While this is not entirely true-there are other recognised medical disorders that have no clear biological referent, including migraine-these diseases differ from psychiatric ones in that the label is usually received with gratitude and, arguably, has fewer moral implications for how the sufferer is viewed by others and by themselves [38]. Psychiatric diagnoses are above all a social judgment, and Watters [39]-from an anthropological point of view-suggests that many of the DSM mental illnesses (e.g. depression) could be seen as American exports, which say more about how personal distress is framed and understood within that culture-as a largely individual matter, requiring treatment at that level. Quite different concepts of profound sadness can be found in cultures whose members do not experience themselves so much as separate individuals but as participants within social communities. Disorders of mood or wellbeing are then seen as a tapestry of bodily, interpersonal and 'atmospheric' processes, that arise from the interweaving of person and context [35-37].

These critical observations remind us of the central thesis of Boorstin [40], in The Image. This academic argued 55 years ago-from a social theoretical perspective-that in the West, it would not be truth, but credibility that in the future would increasingly decide the success or otherwise of technologies and ideas. Claims about the alleged precision and validity of the construct of depression are credibly packaged and are attractive to many policy makers, clinicians and patients-but this does not prevent these claims from being highly questionable when examined with a clear eye: it is the dubious status of the construct of depression that we consider to be deadlock number one.

Finally, a subsequent critical consideration as introduction to our second and third argument: if the diagnostic label 'depression' is a moot one, then, logically, every Randomised Controlled Trial (RCT) that seeks to examine the effectiveness of a given treatment for depression will be flawed right from the beginning. This is because researchers cannot know for certain whether the trial is targeting people who really do share the same kind of clinical problem, or even how well these people represent those who are designated as 'depressed' within the wider population.

Second argument: The questionable effectiveness of psychotherapeutic EBTs for depression

Throughout Europe and the United States, psychological treatments for depression and other forms of distress have been in widespread use for well over forty years and have been researched by means of the RCT method for almost half a century. The results have been favourable but also variable from study to study-owing, amongst other things, to disparities in the quality of experimental design, in the selection of participants and of measurements and statistical procedures, and to the many vagaries of time and place that can help to shape the outcome of a given trial. In an attempt to overcome such problems and to achieve some kind of consensus, researchers have turned to the tool of meta-analysis:-wherein a group of published research investigations are selected for their apparent rigour, their results pooled, and then subjected to complex statistical analyses intended to isolate and distil the claimed benefits of the given psychological treatment. In the clinical literature, meta-analyses are seen as authoritative and often as definitive, precisely because they are based upon large numbers of participants and of independent investigations, respectively. In these circumstances, supporters argue, any consistent finding must be telling us something 'real' about the given clinical intervention.

The tool of meta-analysis might be in widespread use within the mental health treatment field, but does this mean that it is always employed carefully? To answer this question, we need to think critically about the benchmarks that the analysts are using. Meta-analytic inferences about the effectiveness of psychotherapy for depression might offer a good basis for health policy-making when they are well supported by significant medium to large effect-sizes, when the quality of the primary research upon which they are based is of a good standard in terms of participant selection and of overall design, execution, and measurement [41,42]. Moreover and more technically, all potential validity threats to the meta-analytic technique need to be identified and ruled out, heterogeneity within these meta-analytic studies needs to be low and sensitivity analyses should always be conducted to further test the cogency of the obtained results [42]. Given the prominent role meta-analysis plays today in policy-making, Greenhouse & Iyengar [43] argue that the need for sensitivity analysis has never been greater. Sensitivity analyses could consist, for example, of excluding studies with noticeable outliers in the statistical analysis because these might distort the overall results. Multiple comparisons-who are not independent of each other-may result in an artificial reduction of heterogeneity and so it is important to conduct additional analyses in which only one comparison per study is included [44]. Thoughtful statisticians argue that if these and many other conditions are not met, then the meta-analysis will be flawed, and will not allow us to make confident generalisations about the power of the treatment under test [45-51].

Unfortunately, the clinical research literature routinely fails to meet these requirements. As the American academic William Epstein [52,53] has long argued, investigations into the effectiveness of talking and behavioural treatments need to be unusually rigorous. Powerful and culturally determined placebo influences and expectations saturate the therapeutic encounter, and can lead both the client and the therapist to exaggerate the benefits of the treatment-especially to themselves. And yet in a number of detailed reviews of some of the leading studies within the research literature, Epstein has noted that there are repeated issues of client representativeness and attrition, of the adequacy of participant blinding, of the reliability and validity of the outcome measurements, the statistical measures used to interpret them, and of the clinical and institutional allegiance of the researchers and therapists themselves. Over the years, a number of critics have made similar observations, although their voices have been largely ignored within the field [17,29,54-58]. In regard to the psychological treatment of depression, a recent examination of five leading meta-analyses yielded a similar picture [42]. Together, these seemingly compelling analyses represented no less than 362 separate RCTs. Yet the review established serious methodological and statistical shortcomings in each of these five studies. Upon close scrutiny, these meta-analytic studies failed to attain the standards for good quality quantitative research. Based upon these studies, all of which were published in high impact factor journals, one could not decisively claim that psychological EBTs for depression successfully treat this condition. It seemed that the researchers were often required to make

do with what they had (poor quality primary research) and-as Moloney [17] argued-'no meta-analysis can ever rise above the quality of the data upon which it depends' (p 92).

In sum, it seems that Epstein's [52] shocking conclusions still hold today. There seem to be no scientifically credible meta-analytic studies available verifying the effectiveness of any form of psychotherapy for depression. Even if we rephrase this last sentence in a milder form ('There seems to be no scientific consensus concerning the effectiveness of psychological EBTs for depression'), we conclude that we must consider this issue deadlock number two.

Third argument: The doubtful effectiveness of pharmaceutical EBTs for depression

The medical approach to depression begins with the postulate that the latter is a brain disease and that the aetiology of different forms of depressive mood is to be found in physiological or heritable factors or a combination of both [4,59,60]. More specifically, it is argued that certain neurotransmitters in the brain that regulate mood are out of balance. These chemical imbalances are held to be the origin of depressive mood. Accordingly, medical treatment predominantly consists of prescribing chemicals to re-establish the neurobiological balance. In reality this is no more than a hypothesis, but in the clinical literature and in pharmaceutical company advertising it is presented as a well-established 'scientific truth'. However, already in 1998, neuroscientist Elliot Valenstein warned: "What physicians and the public are reading about mental illness is by no means a neutral reflection of all the information that is available" (p 292).

In fact, there are several hypotheses behind the idea of neurobiological imbalance as the causal factor for developing depressive symptomatology. The best known is that depressive mood reflects a lack of the neurotransmitter serotonin within the central nervous system [61]. Lacasse & Leo [62] indicate that the impact of the ubiquitous promotion of the serotonin hypothesis should not be underestimated. However, they conclude: 'The incongruence between the scientific literature and the claims made in FDA-regulated SSRI advertisements is remarkable, and possibly unparalleled'. Dehue [7], Leo & Lacasse [62], Moncrieff [4], Kirsch [61], Healy [59], Goldacre [60] and Moloney [17] reminding us, among other things, that correlation does not imply cause-clarify that these different hypotheses never transcended the level of presumption and that, therefore, these postulates cannot be considered scientific facts. Indeed, they are 'postulates', 'things that are suggested or assumed as true as the basis for reasoning' [63]. Kirsch [61] talks about 'The Myth of the Chemical Imbalance', Moncrieff [4] about 'The Myth of the Chemical Cure'. Moloney [17] argues that defending this idea of neurochemical causation could be compared to the following dubious logic: 'headaches come from a lack of aspirin' (p 35).

The evidence that challenges the idea of the claimed effectiveness of the pharmaceutical treatment of depression has been growing in recent years [61-59,64-68]. In his well-known critical analysis, Kirsch [61] examined a vast number of clinical trials and meta-analyses on the effectiveness of different antidepressants. He concludes that when antidepressants are compared to active placebos, drug-placebo differences in improvement are not statistically significant. Pigott [69] conclude that the effectiveness of antidepressants is even lower than the modest effect sizes reported in the largest antidepressant effectiveness trial ever conducted (STAR*D). These researchers argue for a reappraisal of the current recommended standard of the medical care of depression. From a more ethical point of view, Dehue [7] criticizes the growing individual responsibility and accountability placed upon the depressed as a result of this neurobiological approach of depression, along with the commercialization of the pharmaceutical treatment of depression. It seems that today's conventional ideas about the effectiveness of the pharmaceutical treatment of depression are no longer tenable.

One could argue that if antidepressants prove to be statistically as effective as active placebo's, we do not need to bother with the underlying working mechanisms or aetiological hypotheses. We do not agree with such reasoning. Most experts mentioned earlier in this section specifically indicate that it has been broadly presented in the scientific literature over the past decades that these drugs work because of their chemistry, that there is a causal relationship between chemical composition and improvement. Since many recent publications demonstrate that such causal relation has never been documented in a scientifically reliable and valid way and given the numerous disruptive side effects these chemicals have, this poses a cardinal problem for the pharmaceutical treatment of depression. But the problem stretches further than this. There seem to be various problematic methodological issues surrounding the effectiveness research into the pharmaceutical treatment of depression.

RCT studies and subsequent meta-analyses have always been thought of as well-established methodological designs to examine the effects of pharmaceutical treatments. However, 'breaking blind' or figuring out whether one has been given the real drug and not the placebo, for example, has a tremendous effect on the overall quality of this research [61]. People usually 'break blind' after experiencing all kinds of side effects. When patients believe they have been given the real drug rather than the control placebo, expectations of improvement increase and higher expectations of improvement result in higher reported improvement and thus in higher effect-sizes [70,61]. These biased effect-sizes result in erroneous inferences about causation and effectiveness of antidepressants.

Critical scrutiny of meta-analytic research in this field reveals more major issues. Meta-analytical research by Turner [71] reported, after controlling for publication bias, an overall effect of Cohen's d 0.31, which is considered to be fairly small [72]. In addition to the major problem of publication bias [4, 61,71,73,74], expert-statisticians warn for other validity threats surrounding meta-analytic effectiveness research, such as: academic pressures to find positive results [14,75] citation bias and the associated allegiance effects [76,77] language bias [78,79] duplication bias and availability bias [79]; and other methodological limitations [75,80]. Rosenthal & DiMatteo [47] and Matt & Cook [49] point out that even if only one validity threat is not examined, the quality of a meta-analysis might be highly biased. Unfortunately, according many researchers mentioned in this section, a combination of all these validity threats is at work in most meta-analytic studies. Indeed, there are individual studies, even meta-analytic studies, that report high effect sizes in favour of the pharmaceutical treatment of depression, as Dehue [7], Moncrieff [4] or Kirsch [61] indicate. However, these should be looked at with prudence. It has been amply demonstrated that there are a number of circumstances that inflate these effect sizes artificially. The most important one is leverage or systematic distortion of evidence by the pharmaceutical industry[4,7,59-61].

In summary: over the past decades, it has become increasingly clear that there is no strong reliable scientific support in favour of the chemical-imbalance theory and the pharmaceutical treatment of

depression. Ever since the 1950's, pharmaceutical companies around the globe willingly present correlational relationships as causal relationships [17,61]. Much-if not all-of the therapeutic effect of antidepressants seems to be due to the placebo effect [61]. The specific working mechanisms of antidepressants remain vague and the negative side effects are numerous [4,7,59-62]. Surprisingly, data contradicting the chemical-imbalance theory continue to be ignored and the nineteen-billion-dollar-a-year-and-rising expenditure on a wide variety of antidepressants [61] indicates the unwarranted rise of the medical treatment of depression. The scientific evidence justifying these vast medical expenditures seems to be wafer-thin. We observe that few people know about this deadlock number three and this brings us to our fourth and principal argument.

Fourth argument: All 3 above mentioned arguments are often ignored or easily dismissed

We noted before that the three earlier identified problematic issues do not seem to reach policy makers and the general public at large. In this section we look at explanatory mechanisms for this unfortunate state of affairs. Todays' scientific reasoning and knowledge logically derives from the dominant scientific paradigm. As Kuhn [81]argues, it is this paradigm that decides what is relevant and what is not. We will further conceptualize today's prevailing paradigm as one version of reality that allows us to conceive of only one story about depressive mood. Other aspects of this mental health issue remain hidden.

Reassuring Messages and their Two Main Effects

Let us summarise our earlier arguments in order to extend them. The diagnostic label 'depression' is highly questionable: both the validity and the reliability of the diagnosing protocol are poor and there is no scientific consensus on the aetiology of depressive mood. This disconsolate picture is matched by the paucity of good evidence for the effectiveness of psychotherapeutic and pharmaceutical EBTs for depression. And yet, policy-makers and the public at large receive contrary messages from academic institutions, professional bodies, the pharmaceutical industry, from the employees of public health services and, above all, from the mass media. A spurious certitude about the causes and cures of low mood is the order of the day [25,47,62,68,82].

Inspired by Vermeersch & Braeckmans' [83] treatise on the functionality of myth, we reason that these reassuring messages concerning depression mainly have two important consequences for how we view mental distress and expect it to be treated. First, today's psychological and medical discourse consolidate the way we look at depression, as a form of medical illness; and second, both of these scientific discourses also legitimize the prevailing hierarchy of treatments and the relationship between patient and professional practitioner. It has become almost unthinkable for lay people and health professionals to evade psychological and/or medical discourse when reflecting upon depression: even where environmental causes or 'triggers'-in the harshness of daily life-might be conceded, a powerful and contradictory discourse remains, that depression is a product of faulty brain chemicals or styles of thinking and behaving-awaiting correction with the help of the appropriate experts [38]. Too many of us seem to have lost sight of other viewpoints when confronted with this major public health problem. We will further argue that both the media and the notion of cognitive dissonance play a crucial role in the expansion of this scientific position. We will first briefly consider that our reality is multifaceted and that different juxtaposed scientific conceptions of reality are possible and probably even preferable. The latter could offer new vistas when it comes to understanding and helping those struggling with low mood (infra).

Today's Scientific Reality

What does 'scientific reality' mean? Even though the question itself seems to suggest that there is a definite description of the scientific reality, it seems wise to remind ourselves that some of the most renowned and most cited philosophers of science of the past century specifically clarify that there is no such thing as 'one objective and righteous scientific reality', there are just different scientific conceptions of reality [81,83-85]. Putnam [85] clarifies that these different perspectives derive from the assumptions, underlying desiderata and ethical choices that are adopted before scientific reasoning starts. However, Kuhn [81] elucidates that the dominant scientific paradigm always exerts considerable productive and coercive power to the extent that other scientific conceptions of reality are often considered as insignificant. Kuhn also emphasizes that the popularity of the ruling scientific paradigm is transitory. Scientific paradigms preceding and succeeding a paradigm shift are so different that the new paradigm cannot be proven or disproven by the rules of the old paradigm and vice versa. Scientific reasoning, according Kuhn, functions from within a certain paradigm, meaning that it is the paradigm that determines what is seen as pertinent and what is not, what appears to work and what does not. Feyerabend [85] extends these ideas further. He argues that todays' knowledge-as a result of the ruling (neo)positivist paradigm-is reduced to method. Such knowledge can be refined, further clarified and prepared for application, but it cannot grow in size and substance. Feyerabend would argue that if, today, meta-analytic research (method) suggests that psychotherapeutic or pharmaceutical treatments for mood disorders are highly effective, we would tend to accept these findings and consider them as things we know (knowledge) about depression and the treatment of this condition. Also-and more importantly,we would not consider other angles of analysis that deviate from the prevalent method, because the ruling paradigm suggests these are not relevant. Essentially, Feyerabend argues that, today, reason and method are seen as one entity, not as two different human activities. Doing so, Feyerabend offers well-grounded arguments for scientific pluralism as an essential component of scientific progress (knowledge that grows in size and substance). The meta-analytic inferences (supra) might indeed represent something worth knowing about depressive mood, but other scientific perspectives or ways of analysis (beyond the prevalent method) might add relevant and potentially crucial knowledge about the condition.

These scholars have put the notion 'scientific reality' in a distinct perspective, not in a distinct definition. It is important to establish that today's ruling scientific paradigm (positivism) or today's scientific reality proceeds from two compelling presuppositions or realist notions: the existence of an objective reality and the measurability of this reality [19,83,85]. Consequently, it should come as no surprise that today's media reports about scientific discovery seem to put forward the idea of an existing objective scientific reality.

Media does not inform, it mainly deforms the multifaceted notion of 'scientific reality'

The news and entertainment media saturate our lives via television, internet, radio and a dwindling hard copy press-and so they help to shape the way in which we view our world and its mixture of possibilities and threats [86,87]. When it comes to the public's

understanding of complex scientific issues, the media often presents its messages . meanings are constructed within specific human contexts and are shaped by particular economic and political power relations [84,86,88-95].

As mentioned, it is more accurate to say that our reality-including 'scientific' reality -is multi-dimensional. Different versions or conceptions of reality are possible and probably even desirable. From this constructivist perspective, the meanings that are generated by our media are immersed in productive power and ideology and tend to serve the interests of elite groups especially whether economic, political, or scientific [84,87,94,96-98]. Translated to our subject matter, these media messages could be understood as the result of an interlocking set of interests-of the pharmaceutical industry, of the professions of psychiatry and psychology (and other mental health industry workers) and of politicians who prefer quick fix answers to complex personal and social problems: ones that would otherwise be very expensive and difficult to even attempt to solve [17,30]. Likewise, the ubiquity of these messages may in part also reflect the perceived self-interest of lay people, who might prefer simple explanations and quick fixes for their troubles, and who might want to disguise their legitimate disgruntlement with their steadily intensifying workplace demands (in the neoliberal era) as a form of mental illness ('stress', 'burnout' or 'depression'). Collective bargaining power at work has been eroded, and for many, the only way to express protest or take time out from unpleasant work conditions is by adopting the language of illness [99].

Media coverage about the biomedical approach of depression

It has been amply demonstrated that what we debated in the previous sections, is precisely what the pharmaceutical industry has been doing while promoting treatment for depression. The clinical and scientific reality of depressive mood is described in a narrow and homogeneous way (e.g. 'Depression is a brain disease, certain neurotransmitters in the brain that regulate mood are out of balance'). Other angles of analysis or interpretation almost seem entirely redundant [4,7,17,59-61,65-68].

The well-known mere-exposure effect [100] does the remainder of the work. Repeated exposure increases perceptual fluency, which, in turn, facilitates positive affect towards the message that has been distributed [101]. More specifically, as a consequence of the very repetitive biomedical media messages about depressive mood, suggesting the idea of mastery of this issue, a vast majority of people actually see this biomedical approach as genuine and accurate. Consequently, they tend to believe that different pharmaceutical treatments for depression work. These must work, the prevailing scientific paradigm dictates they do. Repetitive, c However, anti-depressants might quite simply 'work' because stakeholders make dazzling amounts of money selling them and will do anything to maintain these sales [7,61]. Is it-beyond doubt-unimaginable to resume the matter this way?

Media Coverage about Psychotherapy

Less known is a critical observation about the psychotherapeutic treatment of depression made by the Cuijpers [44] research team, an observation that was more thoroughly examined and substantiated by Moloney [17] psychological treatments that are able to claim large effects-such as CBT, for example-facilitate more research funding, prestige, lucrative workshop fees and higher session fees. Cuijpers et al. [44] point out that psychotherapeutic effectiveness research is no freer from publication bias than the research on the pharmaceutical treatment of depression as described by Turner et al. [71], Dehue [7] or Kirsch [61]. Cuijpers et al. [44] and Moloney [17] argue that pharmaceutical treatments are not the only therapeutic area in which truth has fallen prey to economic incentives, which encourage researchers and clinicians to downplay or ignore unfavourable findings and dubious research methods [17,30,102]. Repeated positive media coverage (mere-exposure effect, supra) about the effectiveness of psychotherapeutic EBTs could be considered convenient for researchers and therapists, who want to assert the pre-eminence of their own knowledge and techniques. Notwithstanding-as we argued before-that good evidence for the claimed specific effects of these psychotherapeutic interventions is lacking [17,52,103-105]. Indeed, some of the most ardent advocates of talking treatment acknowledge that the question of 'How does psychotherapy work?' remains unanswered [104]. After more than fifty years of research this is a startling admission.

For all of its humanistic elements, therapy is also a way of earning a living and sometimes a nakedly commercial enterprise [106,107]. Therapists are paid to 'pay' attention, they have good reason to sell their attention as highly effective. Following the same logic as in the previous section, we reason that psychotherapeutic treatments also benefit by repeated positive media coverage about its potency. However, psychotherapy might quite simply 'work' because researchers and therapists need to make a living. Is it-beyond doubt-unimaginable to resume the matter this way?

In summary: through all kinds of media we receive powerful reassuring scientific messages about the diagnosing protocol, the aetiology and the treatment of depression. This media coverage invigorates the prevailing scientific paradigm and often describes scientific reality in an oversimplified way. It lacks nuance and leaves little space for alternative viewpoints. The meanings these messages generate consolidate and legitimize persistently the currently accepted views about depression. The paucity of published criticism on these apodictic messages in both popular and scientific media, should not surprise. It is a logical result of the coercive and productive power exerted by the ruling scientific paradigm [81,84].

The Problem of Cognitive Dissonance

It is very likely that the reading of this manuscript so far makes the reader feel uneasy. Most of the arguments that we have developed are at odds with what we believe we know about depression. This uneasiness could provoke plausible deniability. "Cognitive dissonance is the psychological term for the unpleasant tensions that arise when facts, opinions or behaviour fundamentally contradict one's belief system, norms or values. More specifically, these cognitions which could be more broadly interpreted as knowledge, attitudes, emotions, beliefs or behaviour are perceived as fundamentally incompatible and create stress. Festinger [108], Harmon-Jones & Mills [109] and Verhaeghe [14] note that this cognitive dissonance can potentially have far-reaching consequences. When we are at heart convinced about a set of ideas we are often not capable of accepting contradicting information and so we have the tendency to dismiss this information [14].Translated to our subject matter: our first, second and third argument create considerable cognitive dissonance within the biomedical sciences, the behavioural sciences and the interface of the two. These arguments seem fundamentally incompatible with what we believe we know about depressive mood. From our perspective,

fundamentally incompatible with what the dominant paradigm allows us to know through a mainly quantitative research focus. As a consequence, alternative ways of analysis are easily dismissed and potentially valuable reasoning is easily ignored or rejected.

We noted before that the prevailing scientific paradigm-and its inherent interpretative thought frames, theories, methodological requirements, assumptions and postulates-narrows our view on the matters discussed here. As a consequence and congruent with the notion of cognitive dissonance, we tend to disavow that other perusals of reality are possible. "However and more importantly, we also tend to disavow the idea that a paradigm presupposes specific desiderata [85]"Kuhn [81], Foucault [89], Feyerabend [84], Putnam [85], Verhaeghe [19] and Dehue [7] among others and each from a very different perspective-expound that systems of thoughts, scientific argumentation and ensuing theories are subjective approaches of reality. They clarify that our scientific reality is first and foremost a humanized reality, meaning that humans first make all kinds of ethical and pragmatic choices and that only then, after these choices are made, a paradigm becomes viable and scientific reasoning can start. Consequently, some answers to most urgent questions about depressive mood may very well lay beyond the boundaries of the prevailing scientific paradigm.

Problematic underlying presuppositions and ethical choices

As suggested, todays' dominant scientific neo-positivist paradigm-a combination of logical positivism and logical empiricism-propagates the idea that meaningful statements can only derive from methods of mathematics, logic, and empirical research ('…the scientific method exhausts rationality itself, and testability by that method exhausts meaningfulness…', Putnam[85]. That is, no a priori presuppositions or ethical choices are presumed to lay at the basis of neo-positivist scientific inquiry. Indeed, the falsification method is supposed to be independent from a priori desiderata. Putnam [85] explains that this led to 'the conception according to which a statement is true in case it corresponds to (mind independent) facts' (Preface, IX), when it coincides with objectively measured empirical evidence. However, he argues that precisely this conception produced-above all-a priori philosophies which leave no room for a rational activity of philosophy. Putnam [85] considers that this is why extreme positivist views on reality are-just as it is for extreme relativist views-self-refuting.

In sum, neo-positivist inquiry departs from presuppositions and these are essentially and by definition arbitrary choices The importance of this ascertainment cannot be overestimated, it will allow us-in the final section of this paper-to introduce more easily some alternative hypotheses when looking at the rising prevalence of depression. We indicated before that today's research concerning depression and associated treatments begins with two main a priori presuppositions or realist notions: the existence of an objective reality and the measurability of this reality. However, two more ethical choices need to be made before today's quantitative research concerning depressive mood can start.

First, both the ostensibly dissimilar biomedical and psychological approaches assume that depression is saying more about the afflicted individual than it is saying about the circumstances these individuals are dealing with or about their social contexts. As we will later argue, this is a highly questionable point of view [7,110]. Second, both disciplines have an almost entirely functional view on mental disturbance. This functionality needs to be understood as follows: a fairly limited range of feelings, emotions and conduct is considered as functional and, therefore, as normal and acceptable in relation to an arbitrarily defined normative conceptualization of how society should be organised and how people should conduct themselves within an ordered community [7,14,17,19]. A much wider range of feelings, emotions and conduct is viewed as dysfunctional and therefore considered as anomalous. These dysfunctional feelings and emotions and this dysfunctional behaviour are portrayed as symptoms of an underlying malady that needs to be cured [17]. Happiness, contentment, participation and the obligation to stay well are the standards to which all should aspire.

The research findings concerning diagnosis, causality and treatment of depression we discussed earlier, could be seen as a logic consequence of ethical choices and presuppositions that were made prior to reasoning.
These choices and assumptions are arbitrary by nature and thus problematic.
No major scientific progress was made over the past decades trying to deal effectively with the rising prevalence figures for depression. The way we have been looking at depressive mood over the past decades might have led to a deadlock situation concerning this major health priority.

Table 1: Resuming today's scientific research concerning depressive mood.

If the way in which mental health professionals and policy makers today respond to the rising prevalence figures for depression could be qualified as 'arbitrary' rather than based upon good science, and furthermore, if this perspective is leading to extremely poor results when it comes to the treatment and prevention of low mood, then probably the moment has come that critical thinkers start looking at this public health priority differently. We suggest to expand the current lines of social, methodological and ethical inquiry concerning both the roots and the possible amelioration of depressive mood.

Table 2: Resuming today's scientific research concerning depressive mood

Breaking the Depression Deadlock by Expanding Ethical, Methodological and Social Inquiry

Congruent with our reasoning in the previous section, we will further clarify that any attempt to break the 'Depression Deadlock' must start by disregarding the underlying presuppositions and/or ethical choices of the dominant scientific paradigm. A number of academics-often from very different backgrounds-delivered, in fact, exquisite arguments to do just that. These academics start their reasoning from an entirely different postulate: there is no such thing as one objective and measurable reality (quantitative research, supra), all we have are different perspectives on reality. The latter is the epistemological stance from which qualitative research begins.

From quantitative research focus towards qualitative research focus

'Further research is needed to clarify…' is a phrase that can be find in the conclusion section of numerous scientific articles. In the present case, this is a call for more RCT's and more meta-analytic studies, essentially to try to establish relationships between treatment and outcome. We clarified in the earlier sections-mainly based on methodological arguments-that these RCT findings and meta-analytic findings often have little scientific value and that subsequent inferences are often scientifically unreliable. After decades of questionable quantitative research, this 'Further Research Is Needed'-mantra should be altered because this call for more research nearly always refers to more quantitative research and nearly always results in a world of marketised individual care [4,7,59,60,111].

As we argued before [42], qualitative research is designed to explore and study human activity, understanding and experience within their particular contexts, which are often taken to include the prevailing socio-economic and political narratives. The diversity of qualitative inquiry (e.g. narrative research, discourse analysis, interpretative phenomenological research) epitomizes the potential strength of this approach [112,113]. Qualitative research begins with the premise that humans are intentional and meaning-making agents. The constructivist-interpretative stance within qualitative research allows researchers to show that there is not 'one' world ('objective reality', 'copy theory of truth', supra), but different outlooks on the world [114]. It should be noted that a rather common and dismissive epistemological critique of qualitative research as a solely inductive activity is not correct: this research also often derives from theory [25,112]. Beyond doubt, the main advantage of this approach is that researchers can simultaneously examine individuals that suffer from depressive mood-exploring their particular contexts and dispositions through for example 'theory-led thematic analysis' [115]and the bigger socio-economic and political contexts through for example 'discourse analysis' [116,117] or 'media-framing analysis [118]. Such multi-dimensional approach could result in a much broader understanding of both individual and societal origins of depressive mood, possibly leading to effective prophylactic measures on the short run and perhaps even leading to some more profound social changes. We argued before that the method of meta-synthesis-the qualitative equivalent of meta-analysis-has already provided promising new insights into how psychotherapy might be made more helpful [42].

However, and far more importantly, as argued before, a large body of (mainly) qualitative research already suggests that on the one hand, pathogenic environments foster depressive mood amongst other forms of distress, and that, on the other, the best way to reduce this emotional suffering -is not to treat people-but to create a world in which there is less social and economic inequality, and in which we might take better care of one another [11,13,14,17,120-127]. If more qualitative research would further confirm and deepen these ideas, this could lead to insights that have clear implications for political policy-which brings us to our next proposition.

From individual treatment towards societal cure

Moloney [17] dedicates an entire chapter of his book, The Therapy Industry, to what he calls 'the hidden injuries of inequality' (p 94). Very appropriately, this chapter, quoting the words of a British mental health service user, is called 'I'm not ill, I'm hurt…', which immediately suggests an entirely different approach toward depressive symptomatology. While Moloney's proposals are not new [7,11-14,61,128,129] he gathers a large body of evidence on the social origins of personal distress that cannot be easily dismissed. The 19th century asylums were filled with the deviant poor; and throughout the following century and more, living in an impoverished or pathogenic environment has consistently been found to go hand in hand with elevated levels of anxiety, low mood, self-harm, psychosis and psychiatric hospital admissions [126,130-132]. Indeed, poor mental health correlates not just with lack of money [133], but with virtually all indices of disempowerment and of low social rank including female gender , black and minority-ethnic status [123-125], disability [127], old age [38], sexual minority membership [38], unemployment [119,120,134] and finally, with being bullied or exploited at work [135] Moreover, ever since neoliberal economic doctrines were put forward as the prime economic model in the 1990's, rates of reported anxiety, low mood, and chronic insecurity and distress have accelerated albeit unevenly across time and place [14,17,38]. All of these arguments from a sociological perspective agree with the Income Inequality Hypothesis (IIH) of Wilkinson & Pickett[13]. They suggest that in those industrialised societies that enjoy an adequate healthcare and treatment infrastructure, then the health and well-being of the population is influenced not so much by the introduction of the latest medical technologies or psychological insights, as by the overall distribution of wealth, and especially by the economic and social gap between the richest and the poorest. The larger this divide, then the more likely are citizens to be involved in a scramble for status and security and to experience the mutual unease and mistrust that undermine bodily and mental health [13]. Over the past years, almost 200 studies offered support for the IIH [136]. Moloney [17] concludes that for some of us mental illness is quite simply 'almost inevitable'; and that the most compelling account of its nature and its sources can be found in what the late British clinical psychologist David Smail described as 'social materialist' psychology. Based upon more than thirty years of observations made from within the UK National Health Service, this approach acknowledges, on the one hand, that talking treatment can do little more than provide comfort and elucidation as to the likely causes of individual malaise. On the other, this form of psychology posits that distress is deeply rooted in the body more than the mind, in the cumulative feelings that result from many years of mistreatment, neglect, or abuse. While words can help us to describe this reality they cannot change it, since for good or ill we acquire our emotional experience ineluctably, in the manner of plants that grow well or struggle, in accord with their situation. If we wish to reduce human suffering then we need to abandon our faith in treatment, and to learn instead to take better care of each other;-which is largely a matter of politics [121,122]. As far as the construct of 'depression' is concerned, this perspective aligns with clinical observations that the majority of patients in the West who are assigned this diagnosis report bodily disturbances-including loss of appetite, fatigue, numbness, sickness or pain-notwithstanding that such reports are often downplayed by clinicians, who focus instead upon the patients' presumptive inner 'cognitive world' in need of correction via Cognitive Behavioural Therapy [36].This 'environmentalist' outlook also makes a good match with the findings of transcultural studies in psychiatry, which suggest that in a majority of cultures-especially those which regard the self as fundamentally interconnected with family and community-persistent low mood is experienced primarily as a disturbance of the body and of the sufferer's social bonds [137-139]. Western researchers and clinicians have often attributed these reports to a lack of 'psychological literacy' on the part of people from supposedly 'backward' cultures. However, the main findings of the

cross-cultural researchers do resonate with two important schools within Western psychotherapy, namely the psycho-dynamically oriented attachment theorists [140] and the Freudian-Lacanian theorists of 'psychological identity' [19]. Thinkers from both of these schools conceive of the development and maintenance of our sense of who and what we are-of our 'psychological identity' as always rooted in and defined by 'the Other'. Our identity emerges from a continual process of exchange of identification and separation with the people around us, and this process starts at birth. Rather than being seen as two separate entities, the self and 'the Other' are understood as one interconnected aggregate. From these perspectives, and in the light of the epidemiological and clinical literature described above-it seems that the main narratives of personal distress found in none-Western cultures provide a firmer grip upon the nature and origins of chronic sadness [39,136,139]. Finally, these different perspectives fit comfortably with critical analyses of the construct of depression, which view it as both a social creation-shaped by the language and ideas used by clinicians and lay people-and as a reflection of how the material and social world can disturb body and mind simultaneously [37].

A number of interesting research questions arise from this epistemological position. Did the psychotherapeutic and pharmaceutical treatment of depression direct all attention away from the world that gave rise to these mental conditions? Have these treatments pull up a veil behind which societal problems such as radical social change, loneliness, loss of meaning, a shift to urban life and alienation stay hidden [17,141] Why exactly do we continue to chiefly assume that emotional and mental distress says more about the afflicted individuals than it is saying about the particular contexts against which they might be struggling? What if mental health and illness are indeed produced socially, as the WHO suggested in 2009? Do we have to change our entire treatment focus from individual treatment to societal cure-to attempting to change the larger socio-economic systems that surround us? Because of what we noted in the previous section, we infer that qualitative inquiry would probably deliver the more meaningful scientific answers to these issues. There are good reasons to believe that the earlier mentioned notion of 'functionality' will probably be a cardinal theme within this scientific inquiry.

Towards a different kind of functionality

We argued before that, today, a wide range of interpretations and conduct is viewed as not functional in relation to an arbitrarily defined normative conceptualization of how society should be organised and how people should conduct themselves within an ordered community [7,17,19]. These interpretations, feelings and this conduct are framed as disorders that need to be cured, mainly because they are not functional from a neo-liberal meritocratic viewpoint [14,17]. This could be seen as quite similar to the 19th century moral management practise, as described by Verhaeghe [19] Moloney [17] argues that 'the crude method of mental cleansing' (p 155)-referring to a 16th century Flemish painting-was 'so much more direct and honest when compared with what passes for healing of the soul, in the age of psychological science' (p 155), by which he also refers, be it indirectly, to the problem of functionality in relation to normative notions put forward by powerful elites within society. We observed (supra) that there is a perceptible liaison between rising prevalence figures for depression on a global scale and the global neo-liberal socio-economic evolutions and conversions of the past decades where it is implicitly understood that everybody needs to be functional and especially productive all the time.

A self-evident consideration that rises from this is the following: do we allow people from time to time to withdraw from these insistent and peremptory requests-that is, to be not functional or productive-to be able to cope with a specific situation they are dealing with, without labelling them as 'depressed'? Verhaeghe [19], Moloney [17], Frances [24], van Os [26], Dehue [7] and Vanheule [25] would argue that functionality should be regarded first and foremost-yet not exclusively-in relation to what works for the individual subject. Meaningful scientific answers to questions based on this premise would necessarily result in singular qualitative case constructions and therefor connect much better with the individual needs of the subject consulting with depressive mood. The guiding question within this line of research is the following: 'What is the role and the function of the symptom within someone's subjective internal logic?' [25]. Functionality here refers to an entirely different thing altogether. It seems that todays' medical and even psychological sciences have forgotten about these notions of functionality. Referring to our earlier disquisitions, we infer that the coercive power of the prevailing scientific paradigm, the media and the notions of 'cognitive dissonance' and 'mere-exposure effect' are-at least partially-responsible for this amnesia.

While the ideas and propositions in the final part of this paper are not new, the arguments put forward by all academics mentioned in this section should evoke, in fact, more attention than ever. Indeed, what we hope to have clarified is the following: as time goes by, these arguments are based on ever growing bodies of evidence.

Conclusion: Rethinking Depression Globally

In 2012, the WHO predicted that unipolar depressive disorders will be the leading cause of the global burden of disease by 2030. Based on four arguments, we argued that-if we want to deal more effectively with these rising prevalence figures-we might have to rethink the concept of 'depression' and the way we deal with depressive symptomatology. We further argued that the failure of todays' medical and psychological sciences to respond effectively to these rising prevalence figures necessarily derives from arbitrary presuppositions or choices that are made prior to scientific reasoning and from the way depression is framed in our society by both popular and scientific media.

Rethinking depression globally, we suggest that an international platform under the auspices of the WHO could be created to address this major public health crisis. One of the first goals of such a think tank would be to foster a much broader and interdisciplinary scientific dialogue concerning the likely origins of this important public health issue. Indeed, academics from very different fields might have to play a crucial role within this body of experts, since the evidence in favour of-for example-societal origins of depressive mood has been growing substantially over the past years. Within this think tank, all existing relevant quantitative and qualitative research concerning depressive mood might be synthesised with the aim, in part, of identifying where more qualitative research might be required. One of the ultimate goals should be to formulate clear supranational measures needed to prevent or reduce these societal origins of depressive symptomatology. Indeed, rethinking depression globally, we might need to abandon our faith in treatment, and focus on preventive measures;-which is largely a matter of politics.

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