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Defining Depression: Endogenous Materialities, Exogenous Immaterialities*

Javier García-Martínez
UNIVERSIDAD COMPLUTENSE DE MADRID
jagarc17@ucm.es
ORCID: 0000-0002-7617-6569

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ABSTRACT
Definitions are narratives in action, implying a need to track down the ontology of what is defined. In this case, we explore the mutual tension and/or symbiosis (with consonant and dissonant spaces) arising from the definition of depression. We approach the term 'depression' as a controversial subject, mapping a comparison between lay and expert narratives on the malaise, and making use of digital ethnography as the methodology. A self-administered online open questionnaire was completed with the definitions of 29 lay respondents. In addition, expert narratives were gathered with the definitions of 9 health institutions' web sites, and public mediation forums. Definitions echoed from both spaces, with splits between biological materiality and psychological-social immateriality, with a reiteration of the division between exogeneity and endogeneity, respectively. Here, the emotiveness of the subject can be seen as stemming from the sum of reductionisms and cumulative factors as to what depression is. Finally, we consider other possible ontologies of depression that either: (1) take socio-material assemblies into account or (2) follow the pragmatical turn, defining depression in action. This research opens new approaches towards identifying external materialities, shifting the blame from the diagnosis of the individual towards the mechanisms that spawn harmful relationships.

Keywords: STS, controversy mapping, digital ethnography, defining depression, sociology of emotions, pragmatical turn.

Corresponding author: Javier Garcia-Martínez. Facultad de Ciencias Políticas y Sociología Universidad Complutense de Madrid Campus de Somosaguas, s/n. 28223 - Pozuelo de Alarcón - Madrid (Spain).
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The first programme of a new season of *Salvados* [Saved!] was broadcast in Spain's *La Sexta* TV channel on the 26th of January 2018. The programme was titled *Uno de cada cinco* [One in Five], a name that referred to the proportion of the population who suffer depression in Spain. The aim was to bring the issue of depression to the fore in the public debate through testimonials from experts and those diagnosed with the malaise. Reactions on social networks and in the mass media were mixed. While there was broad support for the programme's goals, it was criticised for over-stressing the biological causes of depression and for omitting others. Some of these criticisms can be found in *eldiario.es* — an online newspaper (Castaño, 2018) and in *Pikara Magazine* (Plaza, 2018).

Throughout the TV broadcast, the issue of depression was put under the spotlight through various means. It boosted public awareness of and reflections on the subject by taking a critical, dramatic approach in which it was argued that depression should not be 'a black box' but rather a matter for heated debate. Putting the subject in the limelight implies serving the common good, giving voice to various opinions, and daily problem-solving (Cefaï, 2012). Notwithstanding the limitations of the medium, the TV programme achieved its goal of boosting public awareness of the issue.

This paper does not seek to redefine depression. Its goal is a much more modest one, namely grasping the definition of depression as a negotiation controversy and the various arguments articulated to resolve it. Specifically, it seeks to understand what shapes the narratives in action for both laymen and experts through two digital spheres. In pursuing this line of enquiry, we take the definitions of depression found on the web sites of major institutions working in the health and/or mental health fields. In addition, we gathered definitions of depression from a sample of laymen, including both those who have suffered depression and those who have not. Comparing these two spheres gives an idea of the rhetorical anchors used in each for offering solutions and in legitimising their definitions.

We will identify the fragmentation found in explanations for depression, with a clear division between social and natural causes. The analysis reveals an earlier split between exogenous and endogenous depression, and that is reflected in how these definitions are articulated. Furthermore, the radical individualisation of depression puts a burden on the sufferer, ignoring his socio-material context. Here, we identify materialities leading to shared, transversal harm as an alternative to these dematerialised, individualising approaches.

DEPRESSION AS A POST-HUMAN ONTOLOGICAL CONTROVERSY

> Because the innate and primordial feeling is fear, everything is explained by fear: original sin and original virtue. My very virtue is born of fear; it is called Science (Nietzsche, 1970: 208)

Science, Technology and Society Studies is an emerging discipline and stems from the Sociology of Knowledge and Science. It has yielded useful approaches to the study of Science and Technology as techno-social mechanisms. These reflections have approached science from a practical standpoint, focusing on the actions of knowledge production in techno-scientific societies. Authors making major contribution in this new field include Callon (1984), Mol (2002), Latour (2005), Law (2004), and Knorr-Cetina (2009).

"Sociology of Associations", "Symmetric Sociology", "New Materialism" and "Relational Materialisms" are some of the names given to this perspective. Specifically, this has crystallised in Actor-Network Theory (ANT) with an ontological proposal that does not distinguish between human and non-human actors, studying as it does the interrelationships between the two as socio-material assemblies.

Latour (1992) argues that knowledge can be presented as a 'black box'. When this is the case, the matter is taken for granted and is naturalised. Black boxes are not discussed but instead are taken as truth and are the

basis of the knowledge that is built from them. Opening the black box implies debate, sparking controversy in a negotiation conducted from different standpoints.

Latour invented the mapping of these controversies as a teaching tool but it has since become a methodology in its own right (Venturini, 2010). The approach implies mapping the various positions in a given controversy and grasping their mutual consonances and dissonances. In this case, I use such mapping to compare definitions of depression as the controversy itself. Thus (as indicated above) it is not my aim to impose a definition of my own but rather to focus on the interplay of clashing and common meanings. Here, I seek to map the anchors used to legitimise a given definition. The very act of defining something supposes a closing movement with respect to a controversy. Coming up with a definition is a way of closing the lid on a Black Box and with it, the controversy it sparks when opened. This closing movement needs a hinge in order to execute its argumentation.

Stemming from Feminist epistemologies, Haraway's (1988) "situated knowledge" proposes ways of dealing with the inevitable plurality of perspectives in the face of a false claim to a single truth, situating experiences in their enunciation settings. As Shapin (2010) notes both in the long-winded title of his book [*Never Pure* ...] and at its beginning, Science has never been pure for "it has always been produced by bodies, situated in time, space, culture and society, and in continuous struggle for credibility and authority".

This negotiation of meanings implies a rhetorical exercise. The approach here takes emotions as an object of argumentative construction, as Micheli advocates (2010) — basing his work on Plantin's ideas. Micheli's methodological proposal (2010) was based on three points of analysis, which serve as our starting point. In the first place, there is a process whereby emotion is attributed to a subject. Second, evaluations of emotion are made in which a certain hierarchy is included and a certain moral judgment made. Third and last, emotions are legitimised (or delegitimised) by the narrator.

From this starting point, we look for both matches and differences between lay and expert knowledge. This cross-sectional approach gathers definitions of depression not only from a bibliographic exploration but also by looking at public forums in which the nature of the illness is disputed. These forums help us reflect on what the hegemonic definitions are. Said narratives (which are deployed as argumentation) go beyond a mere verification of or rhetorical exercise on reality. This is so because these narratives are performative and therefore affect the social fabric. In the public arena, this ontology bears on both the solutions and the processes of subjectivation or objectification, and —where applicable — with an identification with depression. The ontological definition of depression, the solutions offered and the processes of objectification-subjectivation provide the framework of this controversial, hotly-debated issue. A novel feature of the paper is its adoption of a post-humanist perspective to tackle a subject (depression) — a condition that seems quintessentially human. This approach is taken to understand the bilateral relationships of mutual transformation between the human and the non-human, and between the social and the material.

DIGITAL MAPPING METHODOLOGIES

Some see the *online* world as 'unreal' (a view that mirrors the Cartesian dualist 'mind-body'discourse or even Plato's *Two Worlds* line of argument). We, on the contrary, hold that the *online* sphere is just as real as the offline one. The *online* world cannot exist without the physical one supporting it and in this sense is just as 'real' as the latter. That said, the online space is governed by a framework of specific relationships that differ from those in the offline world. Here, we are speaking of the meaning frameworks proposed by authors such as Goffman (1974) and Lakoff (2007) that shed light on how a given set of relationships and actions arise in a given sphere. This is relevant when highlighting the varying enunciation conditions of the texts analysed in this paper.

The arguments have been garnered from two spheres — the expert one and the lay one. Both concern practice-based narratives, from which definitions naturally flow. In the first place, the expert narrative was harvested from a broad examination of the scientific bibliography, as well as from online texts on depression found on the web pages of sundry institutions. These online mediation forums transform the narratives by simplifying them for the general public. In the process, they make choices in which many of the complexities are left out. This information let us establish a hierarchy in the expert discourse. We chose nine informational mediation spaces[1] based on the hierarchy yielded by search engine results. Here, we confined our attention to specialised health institutions. We discuss the findings later on.

In addition, the lay narrative was gleaned through a self-administered online open questionnaire in which participants were asked to define depression from a series of open questions.

'Snowball sampling' was used. The questionnaire comprised open-ended questions, all of them optional. It had two parts. The first consisted of a closed socio-demographic questionnaire to identify the respondent in terms of reported age, nationality, gender, whether the subject considered he suffered from depression (whether diagnosed or not), and if he had taken anti-depressants. A filter question was asked to weed out psychologists and psychiatrists from the sample. The second section asked four open-ended questions in the following order: (1) What is depression?; (2) Why do we have depression?; (3) What can we do about depression?; (4) Are anti-depressants an adequate solution to depression or not?

The 29 respondents were aged between 18 and 24, of whom 22 were women and 6 were men. One respondent did not state gender. Of these, 12 people claimed to have suffered depression at some point, 7 claimed to currently being depressed, and 10 said they had never had depression. There were 8 respondents who said they had taken anti-depressants. Of the 29 participants, 26 said they were Spanish and 3 did not state their nationality. All of the respondents said they had completed upper secondary and/or university studies.

An online map[2] of the positions was created for the 29 people taking part in the survey. In the process, a flow chart was drawn up to group kindred discourses. Unlike a closed questionnaire, the map was presented online to the participants so that they could see the other contributions and make changes if they so wished. Only one respondent chose to do so.

One should note the limitations of the sample given that it focuses strongly on young women with upper secondary and/or university studies. There are special difficulties in getting older males to take part, raising issues that deserve study in greater depth.

It was the first contact with a qualitative methodology that is wholly in keeping with a participatory component. The same methodology could be extended in the future to a larger sample.

MEDIATIONS OF EXPERT NARRATIVES: MATERIAL ENDOGENOUS DEPRESSION AND INTANGIBLE EXOGENOUS DEPRESSION

To get a better idea of the expert narratives, I shall now sketch some of the best-known reflections on depression found in the literature of various scientific disciplines. The bibliographic review is brief, focusing

1 The texts were taken from the web sites of the following institutions: universities (Universidad Autónoma Metropolitana y Clínica, Universidad de Navarra), a Pharma company (Cinfa Salud), NGOs (Mental Health America, Sana Mente, Mayo Clinic), a research institute (National Institute of Mental Health), the US national medical library (Medline Plus) and WHO (World Health Organization).

2 This map can be seen online through the following link: https://coggle.it/diagram/WvuURNZe3m48VEor/t/cartografiando-depresi%C3%B3n/56b417d29253cdc1f97ed4b4f1b2f4a37044d24cf854b2093d3b083411a18afa

just on the questions that are usually posed on definitions of depression. The illustrations give a simple yet comprehensive overview of the main strands found. Second, the aforementioned mediation spaces are discussed to reveal the meanings enshrined by each.

Psychology has explored the subject from various perspectives, including "learned helplessness» (Seligman, 1975). The cognitive approach has yielded good results in clinical practice and there are many studies evidencing its efficacy. These studies include those by Beck, Rush, Shaw and Emery (1985), and by Ingram, Miranda and Segal (1998). From the Cognitive-Behavioural Therapy perspective, the Beck Inventory stands out in both its first edition (Beck, Mendelson, Mock and Erbaugh, 1961) and second edition (Beck, Steer and Brown, 1996). The approach proposes a variety of exercises to get the patient to test his "distortions of reality" and to enable him to boost "activation" and "motivation". From this more psychological approach, links have also been found between depression and conditions such as insomnia (Lustberg and Reynolds III, 2000), loneliness (Weeks, Michela, Peplau and Bragg, 1980), drug and alcohol abuse (Regieret et al., 1990), Internet addiction (Ryu, Choi, Seo and Nam, 2004), perfectionism (Hewitt, Flett and Ediger, 1996), and ageing (Newmann, 1989).

The Social Psychology perspective[3] has also raised interesting reflections in this regard, inviting us to rethink depression as a cause of social inequalities (Álvaro-Estramiana, Garrido-Luque and Schweiger-Gallo, 2010). From this starting point, interrelationships are charted between depression and issues such as race (Fernando, 1984), gender (Manasse and Ganem, 2009), unemployment (Dooley, Catalano and Wilson, 1994), body image (Noles, Cash and Winstead , 1985) and social exclusion (Leary, 1990). As we will see later, the more markedly sociological approaches are not usually part of the definition of depression commonly found in the public arena.

Meanwhile, controversy rages in the scientific literature on the biology of depression. Traditionally, links were made between depression and serotonin (specifically from the so-called "serotonergic neurotransmission") — a focus found in works such as these by Asberg, Thoren, Traskman, Bertilsson and Ringberger (1976), Meltzer (1990), and Owens and Nemeroff (1994). The gene responsible for the production of serotonin (5-HTTLPR) was thought to be responsible for depression-associated levels, as shown in works such as those by Eley et al. (2004), and by Karg, Burmeister, Shedden and Sen (2011). Research was also carried out on other links, such as those that between serotonin and fish consumption (Hibbeln, 1998) and glutamate (Müller and Schwarz, 2007).

However, recent scientific publications claim no relationship between depression and serotonin production (Rischet et al., 2009). This lack of robustness has led to the search for other explanations, such as inflammation's role in depression. This has led to a shift in research from serotonin to cytokines, the latter being responsible for both anti-inflammatory and pro-inflammatory responses in the brain. Here we find works such as those of Raison, Capuron and Miller (2006), Dantzer, O'Connor, Freund, Johnson and Kelley (2008), Howren, Lamkin and Suls (2009), Miller, Maletic and Raison (2009), Dantzer, O'Connor, Lawson and Kelley (2011), and Berk *et al.* (2013). This new perspective is making headway, eclipsing the old argument for a causal link between serotonin levels and depression. From this perspective, the brain is considered more plastic and thus more adaptable to its environment. In the brain's relationship with the external world, both anti-inflammatory and inflammatory processes arise, the former helping depression subside and the latter aggravating it.

Uncertainty and ignorance play roles in the expert narrative, sparking controversy and attempts to anchor arguments and clinch the debate. Yet experts cannot claim ignorance since this would cast grave

3 When I speak of Social Psychology here, I focus more on Social Psychology tan on Sociology. I have considered it better to classify a more psychological approach to Social Psychology within the psychological perspectives noted earlier.

doubts on their competence. The crystallised narratives reveal the hinge from which they close in (or try to) on depression. Being able to challenge resistance to expert prescriptions boosts legitimation of a new hegemonic perspective. This ontological novelty is translated into sundry performativities such as diagnoses and treatments.

The public forums on depression conceal debates in the scientific community, claiming to offer proven, irrefutable truths. The knowledge is intentionally simplified for public consumption, making it easier to spread. Once the complexities and uncertainties have been thrown out, the residue is used to establish and uphold a hierarchy of knowledge.

In this case, the chosen forums tell readers about depression in a simple, direct way. Rather than highlighting the latest developments, they speak of 'established truths'. The use of strong definitions helps readers tell whether they or others have depression. These forums are not trivial because the emotional instability associated with depression does not readily lend itself to self-evident explanations. Yet dealing with depression involves venturing into a twilight zone of uncertainty in which one has to ask oneself some hard questions. The task of defining depression invites the reader to look at himself in the mirror in the light of a long list of ambiguous symptoms.

> Different people have different symptoms. Some of the symptoms of depression include: feelings of sadness or "emptiness", feelings of hopelessness, irritability, anxiety or guilt, loss of interest in favorite activities, feeling very tired, trouble concentrating or remembering details, not being able to sleep or sleeping a lot, eating too much or not wanting to eat at all, suicidal thoughts, suicide attempts, aches and pains, headaches, stomach cramps (colic) and digestive problems (National Institute of Mental Health, 2019)

The narrative is very similar in all these institutions' web pages, in terms of its development, structure, and anchors, with clear distinctions made between symptoms, causes, and treatment.

Treatment is carried out by a specialist in all cases. In a crisis, the 'patient' is actively encouraged to contact a centre that can treat his depression. Medication and psychotherapy are common treatments, although electroshock is mentioned as viable under certain circumstances.

Regarding the causes of depression, it is worth noting how differences are garnered. It is here that the ontological arguments are anchored, seeking to dispute the nature of depression. From this point of departure, a whole set of abstract, intangible *topoi*[4] unfold that are more apparent in broad psychological issues than in biochemical explanations. That is because the technical language used to describe biochemical causation is both highly specialised and thus much less accessible to the general public.

> [...] Depression is generally produced by the interaction of certain biological factors (hormonal changes, alterations in brain neuro-transmitters such as serotonin, norepinephrine and dopamine, genetic components, etc.), with psychosocial factors (stressful circumstances in the sufferer's affective life, work, or relationship) and personality (especially, their psychological defence mechanisms). (Pla Vidal, s. f.)
>
> Depression is a brain disorder. It has several causes, including genetic, environmental, psychological, and biochemical ones. (Sana Mente, 2019)

References to biological issues are translated into rich language that embraces biochemistry, genetics, hormones, and neuro-transmitters. Psychology occupies a much more diffuse, dematerialised space when it comes to resilience, stress, trauma and loss. Yet the discourse often goes no further than "psychological factors", Finally, environmental causes are stated in a highly dematerialised way, as are their attendant circumstances

4 *Topoi* are stereotyped meanings that may hide big gaps. They are the 'non-places' in a text, the padding in the narrative. Nevertheless, they have many 'voices' given the host of meanings they can take on. Studies by Ducrot (1988) and Ansombre (1995) played a key role in coining this term.

(environmental factors, grieving, labour issues, and so forth). There is a staggered ordering present in these collected causalities. We found a direct relationship between terminological and material precision, leaving out *topoi*, and biological terms related to depression. However, this specificity diminishes in psychological causality and even more so when it comes to anything bearing on Social Psychology. The materiality of the depression is lost along the way.

Traditionally, a distinction was drawn between endogenous and exogenous depression. The former was causally attributed to brain biochemistry, while the latter — as the name suggests — was considered a consequence of factors external to the brain. This split was intended to offer specific treatments for each case. However, anti-depressants were shown to be equally effective in both cases, which ruled out this dichotomy and gave treatment with anti-depressants greater legitimacy than psychological therapies. There are hybrid approaches that combine more than one approach but these are not so common. A case in point is furnished by Kaufman *et al*. (2004), who state that social support greatly lessens the risk of depression in abused children with a genotype that makes them prone to depression. However, such approaches are seldom used and are far from the norm.

The output of expert knowledge both in scientific publications and in the informative texts considered here continues to make the distinction between: (a) an endogenous depression (with a specific materiality), and (b) an immaterial exogenous depression that articulates its own ontology. The set of factors claimed to cause depression constitute a fragmentation of that dichotomy, involving asymmetric explanations ranging between the natural and social dimensions, with depression seen as the result of all these factors. Yet such explanations fail to explore the interrelationships between said factors and their relative importance.

The new biological approaches focusing on brain plasticity challenge this division, something that is also true with regard to the interest shown in inflammation processes. The distinction between biology and psychology, endogenous and exogenous depression could eventually collapse and give rise to new approaches that explore complex interrelationships. Yet such a sea change in paradigm is unlikely to happen soon.

LAY NARRATIVES: FRAGMENTED DISPUTES BETWEEN ENDOGENEITY AND EXOGENEITY

The attribution process in people who have had depression involves them speaking directly of their own experience. In the case of expert discourse and that of laymen who have not suffered depression, emotion is attributed to a figurative “other”. The evaluation of depression as an emotion is not negative regardless of whether the respondents spoke of their own experience or that of others. In all cases, depression was recognised as a serious condition.

Dilthey (1944) held that a distinction should be drawn between explaining and understanding texts. In a way, understanding the text means diving into it. As Ricoeur (1975) points out, a text has a life of its own and our task is to delve into and embody it. This is the basis of the hermeneutical perspective. In keeping with this approach, Ahmed (2012) makes interesting methodological proposals on how to understand texts through emotions. Once we accept that a text is ‘alive’ and conveys various emotions, we can grasp its claims, what it is struggling to do and assert, and the doubts and fatalism besetting lay narratives. As we have already pointed out, human and non-human ontologies are intertwined and span both definitions and those who make them.

The biological and endogenous ontology of depression

A biochemical alteration, a dearth of neuro-transmitters, hormonal problems, and hereditary factors were explicitly associated with how some lay respondents saw depression:

> “An alteration of psychological and biochemical functioning» Woman aged 24. She has had depression.”

> "[Sic] Physiologically it is a deficiency of neuro-transmitters such as serotonin, which is characterised by apparent sadness, with symptoms [sic] such as lessening appetite, interest in things, sex drive, even losing the will to live and having suicidal ideas." Woman aged 19. She has never had depression.

An internal debate appears between sadness, emotional state and illness, in which the need to consider depression as a disease is raised so that the condition can be given the attention it is due. Extending the concept in this way gives depression the same legitimacy that has historically been attributed to other diseases as part of biological materiality.

> "It is a disease and not a state of mind. Many people say "you are depressed" when you are fleetingly sad, worried and so on. That idea is wrong. It may be a disease that is hard to "detect" and that also has to be "admitted" by the sick person because as my psychologist told me: you have to accept that you have a serious problem." Woman aged 20. She has had depression.

> "I consider depression to be an illness, not a state of mind [...]" Woman aged 22 years. She has depression.

> "It is a state of mind in which your life is strewn with obstacles [...]" Woman aged 20. She has depression.

In all cases we find descriptions of stagnation over a longish period. Both the words "state" and "disease" capture this specific long-term emotional malaise.

The Exogenous Ontology of Depression: Individuality and Control

> "From my point of view, depression is reached when someone for certain reasons reaches a point at which their desire for everything around them hardly exists and there is an almost permanent state of sadness, anxiety and often of loneliness". Man aged 22. He has had depression.

> "The day-to-day circumstances, and the perception of these due to an individual's way of thinking". Man aged 20. He has never had depression.

Among the host of ideas on depression, we first find an approach based on individualism in which the various respondents stated that the condition must stem from a "lack of desire", "perception" or "initiative" on the sufferer's part.

> "I suppose because of the way things are and how he thinks and feels about them". Woman aged 23. She has never had depression.

> "Because there are people who tend to be more negative and sadder than others, it is generally a result of their childhood experiences and how they were treated at home". Woman aged 23. She has depression

Direct reference to contexts gradually emerged when respondents were asked what one should do and why folk suffer from depression. Attributed causes included situations, shortcomings, neighbourhoods, negative life experiences, failures, complexes, losses. All of these attributions lacked specific materialities and did not point to shared processes inflicting exogenous harm.

> "[…] you have reached the end of your tether and your pain, feelings go beyond your ability to control them and have overwhelmed you". Woman aged 21. She has never had depression.

> "[What should we do about depression?] Fight it each day, force the mind and body to work as they should." Man aged 21. He has had depression.

> "Psycho-emotional state of loss of control of emotions […]" Woman aged 24. She has never had depression.

> "Depression not only kills joy but it masks the presence of emotions, fosters apathy and loss of control over one's life". Woman aged 24. She has never had depression.

There are definitions of depression that see the malaise as a loss of control over emotions, indicating the subject feels overwhelmed. It is a discourse that reproduces the mutually exclusive, Cartesian distinction between reason and emotion — mind and body — in such a way that emotion is subordinate to reason. Yet the two cannot fully co-exist so emotion must be controlled otherwise — goes the argument — it would run riot, overthrowing reason and sound judgment. In the context of contemporary Capitalist societies, psychological malaise is strongly privatised (Fisher, 2009). It appeals to an individualised control, a radical self-control by the sufferer himself.

Anti-depressants: Solutions for the diseased body from the endogeneity standpoint

> "Treat it pharmacologically with anti-depressants acting at the level of the neuro-transmitter metabolism, inhibiting it or fostering re-uptake, using drugs such as Citalopram and Sertraline. On the other hand, it will have to be treated from a psychological point of view, that's very important". Woman aged 19 years. She has never had depression.

> "See a specialist straight away for a diagnosis and get put on anti-depressants […]" Woman aged 22. She has depression.

The specialist terminology covering neuro-transmitters and the names of anti-depressants leads us to a powerful reflection on how these narratives filter down to laymen. The more biological, endogenous approaches can present a surprising wealth of terms — something that is not true of other perspectives.

> "Talking to that person, I think that few specialists care about the life of the patient and focus on prescribing pills. Support the patient, make him feel more important and realise what he is missing in the world. Give him a reason to keep going and not to stagnate." Woman aged 20. She has had depression.

Expert treatment was also constantly mentioned, as was the need to consult experts to turn the situation round. However, there was a certain scepticism regarding bio-medical treatment with anti-depressants but this did not extend to psychological approaches. Anti-depressants were considered insufficient and it was argued that changes in medical practice need to be made.

The effectiveness of anti-depressants was what initially ruled out the dichotomy between exogenous and endogenous forms of depression given that the drugs proved equally effective in both cases. Prescribing anti-depressants has become the norm, particularly for major depression. Regarding this variant, the combination of anti-depressants and therapy has yielded good results. Yet psychological treatment is generally more expensive than prescribing drugs. The use of an anti-depressant produces deep changes in the subject, greatly changing his view of the world. However this approach does not address socio-material mechanisms leading to psychological harm and depression.

Solutions from immaterial exogeneity: radical individualism or healing communication?

> "[…] You are the one who must put the solution into action. You must do things that make you happy instead of waiting for happiness to come to you. You build your own happiness". Man aged 24. He has never had depression.

> "[…] The best solution comes from within". Man aged 21. He has had depression.

Another strand enshrines extremely individualistic solutions, which go so far as to argue that only the sufferer can haul himself out of the pit, regardless of his circumstances and life. Such discourses take the individual and his emotional behaviour as lying at the heart of the problem.

This argument is reminiscent of the so-called "performance subject" (Han, 2017), in which the victim is doomed to endless dissatisfaction in a world that is hell-bent on re-inventing and renewing itself. Thus Han (2015) argues that we live in frenetically positivist societies in which we are driven to a

frenzy of self-monitoring, self-criticism, and self-exploitation.

To make matters worse, we are bombarded with a welter of messages and socialisation demands as the path to self-healing. Put another way, socialisation and communication are seen as curative *per se*:

> "Socialise with these people and always be at their side.. Let others show their emotions and share yours with them. Never be alone. . . and above all, meet people who accept you as you are — that's really important". Man aged 23. He has had depression.

> "Stop treating depression as a taboo subject. Help people who have this illness. Do not exclude them from groups, thinking that they are weird and even dangerous". Woman aged 20. She has had depression.

The most social issues are not part of the hegemonic narratives on the ontology of depression. However social demands for integration are made explicit as a way of tackling depression. These demands include normalising how we think about the illness and the need for social relationships to facilitate a cure. "[What should we do about depression?] Listen and speak". Woman aged 23. She has never had depression.

> "[What should we do about depression?] Make the problem visible and go to specialists". Woman aged 24. She has never had depression.

> "[What should we do about depression?] Make it visible as just another illness, normalise it, assume that a lot of people suffer from it. Give more help to alleviate the situation and improve the living conditions of these people". Woman aged 22. She has had depression.

"Visibility", "listening" and "speaking" are some elements that are claimed to offer solutions. Expressing the pain felt by sufferers is supposed to help in healing depression. By contrast, "invisibility", social exclusion and loneliness are seen here as causing harm. Exogenous depression is explained from the human standpoint in a dematerialised process, and is framed in terms of immaterial communication that is assumed to have healing properties.

SUMMARY OF FACTORS IN AN INDIVIDUALISING AND INTANGIBLE DEPRESSION: WHAT IT IS AND WHAT IT COULD BE

There is a split between crystallised common sense on depression, and common sense structures. Depression is articulated through a set of "factors", which is why it is presented as the sum of its parts. A common approach in these narratives on depression might be represented in an equation of the ontology of the malaise, articulated thus:

> Endogenous (biological/material) + Exogenous (psychological-social/immaterial) = Depression

Although the word 'combination' often crops up, it is used to speak of a sum of factors from which a result is inferred. The arguments seeking causal relationships in depression are deployed through a reductionism that tries to locate specific elements to add them to a list of possible causes. However, studies delving into the relationships among these factors are pretty thin on the ground and are non-existent in the hegemonic narrative targeting the general public.

Explanations based on both social and natural components have been replaced by theories focusing solely on natural causation. Endogenous depression is explained away by biochemical brain states. Meanwhile, exogenous depression is relegated to the psychological-social dimension in which the malaise is explained only through sufferers' relationships with others. In other words, the individual has been placed at the heart of the issue. Nevertheless, we can look beyond the individual. Here, identifying external materialities may lift the burden for making the diagnosis from the individual and turn our gaze to what is actually causing him harm.

The material form of violence has given way to another that is without subjects, and that is anonymous and systemic (Han, 2018) hence the need to pin down the socio-material mechanisms causing the harm and violence. Only thus can we begin a new conversation on depression that holds out the prospect of overcoming the present asymmetries. Faced with dematerialisation, a process of rematerialisation is needed that embraces both endogenous and exogenous aspects.

We should therefore ask ourselves what specific, transverse socio-material mechanisms foster damaging relationships. How is our materiality, our body, transformed in relation to these mechanisms? How do social relationships affect brain biology? What are the non-human materialities that alter our emotions?

As Smithson (1989) argues, specialisation is a kind of blindness. Although I have reservations about the wisdom of acting on this belief, the idea is key to being able to: (a) carry out exchanges of meanings among the social and natural sciences; (b) overcome the asymmetries in tackling depression. Faced with asymmetric and reductionist approaches, there is a need to focus more on emerging, cross-cutting properties in the material and social spheres. There is a long history of examining such properties, spanning from Mill to the present. The message is that the product is more than the sum of its parts. Our senses in action are thus more than just the sum of so many symbols — a fact that helps explain this emerging property. In the same way that intersectional discrimination does not arise from a mere sum of oppressions, there is also no reason why depression should be an exercise in reductionism. Thus examining the interaction between the various biological-psychological-social assemblies involved in depression can greatly enrich our analyses.

There is a general issue in relation to depression, namely that medical treatments concentrate on curing the condition rather than preventing it (Martínez-González and De Irala, 2005). In both the expert and lay spheres, solutions always focus on treatment after the damage has been done. Preventative mental health initiatives have been taken, especially when it comes to children yet there is much that we do not know. I believe that the social sciences still have a lot to offer in identifying the social mechanisms driving these undesirable emotional dynamics. Here, there is a need to collective approaches to both preventing and curing depression. This means going beyond resorting to experts for treatment. Making the suffering of those with depression is a first step but not a magic wand for making the illness vanish. In addition to conveying the suffering, it is also vital that those with depression talk about their condition and make it 'visible' for all to see. In this respect, the so-called 'mental health technologies' have a key role to play. This implies a process of democratisation and boosting public awareness of psychological treatment that goes beyond the specialist sphere to become a vital step in fostering mental health and treatment. Such measures are justified by soaring stress levels in Capitalist societies and the way in which the problem has been 'privatised' by shoving the blame on the individual. In this respect, one should ask why we meekly accept such an approach when so many people (especially the young) suffer from depression (Fisher, 2009).

Along these lines, our paper raised the scope for a socio-material ontology of depression in which neither party excludes the other. Both sides of the debate need to work together to explore assemblies and so improve theories and diagnoses. This begs a host of questions (not in any special order), such as: (1) How do socio-material assemblies and brain plasticities tie in with certain practical materialities and socio-cultural structures?; (2) How is brain resistance handled when subjected to changing emotions?; (3) What 'negotiation' strategies can we come up with to improve this mental processing? This assembly is dynamic not static, depression is reflected in action; (4) How does one act when depressed?; (5) How is the definition of depression reflected in the actions of the person defining it?; (6) How are emotions put into action in a consistent or chaotic form in daily life?; (7) What daily strategies boost or depress depression in transforming emotions?; (8) How can one collectively use mental care technologies in ways that do not necessarily involve experts? These are just some of the questions we must begin to ask ourselves if we are to make a new start on tackling the malaise.

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BIOGRAPHICAL NOTE

Javier García-Martínez

Degree in Sociology (Complutense University of Madrid (UCM), 2018) and Master in Socio-cultural Analysis of Knowledge and Communication (Complutense University of Madrid, 2019). He specialises in the intersections between: the Sociology of the Body and Emotions; studies in Science, Technology and Society; digital ethnographic approaches.