

Universal cures for idiosyncratic illnesses : a genealogy of therapeutic reasoning in the mental health field

Johanne Collin

Modern therapeutics is frequently classified as «rational» in contrast to nonspecific remedies and untested, multi-ingredient prescriptions of years past. But strictly speaking, every medical system is «rational», in that its conclusions proceed more or less logically from its premises. [...] What distinguishes modern therapeutics is not its superior rationality, but its scientific epistemology. (Pellegrino, 1979: 256.)

Introduction

Over the past four decades, there has been a significant increase in prescriptions for certain classes of psychotropic drugs such as benzodiazepines, antidepressants, stimulants, and antipsychotics (OCDE, 2008). For instance, antidepressant use has doubled in the United States between 1996 and 2005. Also, contemporary prescribing of psychotropic drugs is characterised by the rise of concomitant prescribing, which is the prescribing of two or more psychotropic drugs from different classes initiated at the same time, by a single doctor (Bhatara et al., 2004; Safer et al., 2003). This tendency has been particularly striking among children and teenagers, where 37% to 41% of treatment regimens prescribed to youths have been identified as concomitant prescribing (Olson, et al., 2012; Lafortune & Collin, 2006; Zito et al., 2003).

Since these trends do not simply reflect a growing prevalence of mental health problems there have been various attempts at explaining the phenomenon (Grob & Horwitz, 2009; Moncrieff, 2008). Through the concept of medicalization and more recently pharmaceuticalization, much of the literature addresses the major role played by pharmaceutical companies in shaping clinical practices as well as social and cultural attitudes toward medication (Conrad, 2013; Williams et al., 2011). The multiplication and reconstruction of nosological entities within psychiatry itself, particularly with reference to the DSM¹, have also been put forward as an important cause of this increase in psychotropic drug use (Wooley & Horwitz, 2013; Grob & Horwitz, 2009; Kutchins & Kirk, 1997). Less attention, however, has been paid to therapeutic reasoning, clinical judgment and the rationales underlying the day-to-day prescribing practices of physicians.

Actually, we can't really say this issue has been completely ignored. Indeed, physicians' prescribing practices - particularly the problem of over-prescription of psychotropic drugs - have long been one of the battle horses of public health, and a major focus in epidemiology and clinical practice (Matanovic et al. 2012; Hoblyn et al. 2006; Tamblyn, 2004). The two main assumptions put forth by epidemiological research are: 1) that clinicians' knowledge about therapeutics is inadequate, and 2) that their prescribing is either irrational or motivated by «extra-therapeutic» or non-scientific considerations (such as the pressure arising from patient demand, etc.)(Bradley, 1992).

Yet, such hypotheses paint a picture in which physicians are depicted as mere instruments subjected to external influences. But are prescription practices merely shaped

by routine or by new therapeutic trends? Are they instead based on observation or trial and error (McPherson & Armstrong, 2009; Bleakley et al., 2003; Brown, 1987)? How do scientific and non-scientific influences translate into clinical and therapeutic reasoning to make up this striking statistical portrait?

This article will address the complex relationship between aetiology, diagnosis and drug treatment by examining the styles of reasoning underlying prescribing practices in the mental health field (Hacking, 1992). Indeed, in spite of the recent enthusiasm for the sociology of diagnosis (Jutel, 2011) it will be argued that its study is inseparable from that of therapeutics, defined as a cognitive system as well as a set of social practices. To make sense of the various trends that shape clinical and therapeutic reasoning, an analysis of medical discourse concerning the conceptions of therapeutics as well as therapeutic epistemology is essential. In order to do so, a broader setup has to be explored.

Indeed, actual therapeutic reasoning underlying prescribing practices can be better accounted for by the way of history than ethnography alone. An historical perspective of therapeutic conceptions and practices is needed to help decipher the complex sedimentation of ways of thinking and ways of acting that was progressively established through time. Foucault coined the term «genealogy» for that type of endeavour, where history serves the purpose of making sense of a contemporary problem that might be, because of its immediacy, illegible, inconsistent or confusing (Foucault, 1971). As such, a genealogy of therapeutics requires assessing the changing role of scientific knowledge in medicine, and the tension between practice, knowledge, and professional identity.

It will be argued here that modern psychiatry, as 19th century general medicine before it, has been experiencing a series of epistemological shifts between two sets of notions (specificity and universalism; empiricism and rationalism) that reveal tensions in the way the discipline presents itself as scientifically legitimate over time, as well as in between professional ambitions and day-to-day practice (Moncrieff, 2008; Warner, 1986). In both cases, therapeutics, and more precisely drug treatments, are a central issue.

The case for a genealogy of therapeutic reasoning in 19th century medicine and modern psychiatry

Genealogy supposes, as Foucault said, to «de-naturalize» present phenomena by revealing their ideological undercurrents and the way they were historically set into place (Foucault, 2003). In that regard, it is not «progress» we're looking for, but the shifting of conceptions through time and the way it affects practices, and vice-versa. It is thus more a history of continuity than change, in order to underline the partial arbitrariness of what might otherwise appear true, just or simply natural, such as our contemporary view on sound medicine and adequate therapeutics. Nineteenth century medicine and modern psychiatry follow that trend, with successive reorganizations around the poles of universalism, specificity, rationalism and empiricism. The aim here is to reveal the complexity of the present, by stretching through time what is condensed in the moment, to better illuminate its intricacies.

Adopting a historical and comparative perspective between nineteenth century general medicine and modern psychiatry provides an interesting point of entry for the following reasons. Contemporary drug treatments in psychiatry are the target of criticism (Angell, 2011a; Angell, 2011b; Moncrieff, 2008; Healy, 2004), especially when it comes to their extensive and concomitant use. A similar critique of therapeutic regimens emerged in the nineteenth century, at the end of a period characterised by the excesses of heroic medicine and by the dominance of dogmatic systems (Bynum, 1994; Warner, 1986). At that time, the very status of the medical profession, as well as the scientific foundations of its practice, were contested by several groups and alternative movements, such as Thomsonians and homeopaths through their denunciation of the aggressively used therapies such as bloodletting and mineral drugs (Rosenberg, 1979; Warner, 1986). Modern psychiatry as well has been under attack at different times throughout the twentieth century (Rosenberg, 2007; Shorter, 1997), namely since the rise of the antipsychiatry movement in the sixties and more recently with the publication of DSM-V (Whooley & Horwitz, 2013; Frances, 2013).

Furthermore, nineteenth century general medicine, just like twentieth century psychiatry, experienced a major upheaval in its epistemological foundations as a result of pharmacological discoveries. That is, the emergence of pharmacology in the nineteenth century (Bynum 1994; Berman, 1978) and the rise of modern psychopharmacology in the mid-twentieth century (Shorter, 1997). In both cases, an historical analysis of medical discourse indicates an increasing interest for the notion of specificity and a quest for *specific* treatments targeting *specific* diseases during the decades preceding these

pharmacological breakthroughs (Moncrieff, 2008; Pellegrino, 1979). In both cases also, the finding of drugs that would act on the underlying causes of the disease was the ultimate ambition (Moncrieff, 1999).

Actually, the quest for specific drug treatments and their standardization seems to have been a favoured pathway to enhance the scientific status of medicine and therapeutics in the 19th century and of modern psychiatry (Grob & Horwitz, 2009; Rosenberg, 1979). In fact, through the production of DSM III in 1980, contemporary psychiatry has adopted an epistemological model drawn from the natural sciences that aims to submit its clinical practice to the test of scientific evidence (Horwitz & Wakefield, 2007). According to Whooley & Horwitz (2013: 79): «The new paradigm of diagnostic psychiatry organized symptoms into discrete disease entities with the expectation that the organic bases of these entities would soon be discovered.»

In both cases finally, that notion of a specific treatment would come to clash with another form of specificity, that of the patient, also historically significant in psychiatry as well as in general medicine. In that perspective, expertise and scientific status would come from a sophisticated knowledge of the patient, his/her history and background, in order to provide a treatment based on an idiosyncratic heuristics (Bleakley et al., 2003). The prominence of one form of specificity or the other tends to shift as the discipline faces crises of legitimacy throughout the times. But at all times and still today, a tension lies between these imperatives of scientific standardization and precisely tailored treatments.

My aim in the following pages is thus to trace, through the analysis of medical discourse, the broad outlines of the principal epistemological shifts and the tensions between those two forms of specificity (that of the disease and drug treatment, and that of the patient) that delineate the history of therapeutics. I will also describe their repercussions on practitioners' styles of reasoning. In the final section of the article, contemporary psychotropic prescribing practices will be discussed in order to show how these historical tensions are still at play in the clinical judgment and day-to-day therapeutic decisions taken by physicians.

Therapeutic developments and paradigm shifts in 19th century general medicine²

According to Warner (1986), the history of therapeutics and medical reasoning in the U.S. during the nineteenth century was marked by a series of major, consecutive epistemological shifts. The axes constituted by two sets of key concepts—empiricism and rationalism, as well as universalism and specificity—seem to provide a useful conceptual framework for reading contemporary patterns of psychotropic prescribing, as well as the reasoning that underlies these practices.

Over the course of the nineteenth century, the terms *rationalism* and *empiricism* took on different meanings, which had both positive and negative connotations according to the time and context in which they were used (Warner, 1986). The dominant trend in medical reasoning first underwent a shift from rationalism to empiricism at the beginning of the nineteenth century, and later, in the last decades of the century, it went through another

shift from empiricism to experimental rationalism. These shifts in medical thinking entailed moving between completely different conceptions of therapeutics.

Until about the 1820s, western medical thought was still permeated by the aetiological theories of the Enlightenment. At this point, the notion of *rationalism* was identified with the *systems of medical thought* that were most familiar to North American doctors, such as those developed by Rush and Cullen, or Brown (Bynum, 1994; Warner, 1986). These systems shared as a common basis the notion of a single principle of disease causation, which usually tended to overshadow any specificity or diversity in pathological processes (Warner, 1986; Ackerknecht, 1973).

The first consequence of this conviction—that all diseases arose from the same pathological mechanisms—was a narrowing down in the range of treatments used. These consisted in a few interventions, that were intended either to excite or stimulate the organism, or to slow it down, depending on what was needed to re-establish the equilibrium that had been disrupted by disease. At the core of these systems, as Warner has shown, was the prospect of discovering a universal law of pathological processes and of their treatment.

When applied to daily medical practice, the dogmatic *rationalism* that came out of this medical epistemological framework inevitably reduced diagnosis and therapy to a routine and systematic exercise. Thus until the 1860s, *rationalism* was mainly used to

describe an excessive reliance on a style of reasoning that was cut off from experience and associated with the simplification of therapeutic strategies.

The term *empiricism*, which gradually replaced dogmatic *rationalism* as the dominant paradigm of medical discourse during the same period, referred to a type of knowledge that was firmly grounded in clinical experience, according to which knowledge and experience were mutually reinforcing. It rested on the primacy of patient specificity, which implied a high degree of relativism in therapeutic strategies and precisely tailored treatments.

However, as stated by Warner, during the last decades of the century, *empiricism* would increasingly be associated, in medical rhetoric, with ignorance, blindness and a penchant for « trial and error » in the elaboration of therapeutic strategies. *Rationalism* (increasingly paired with the term *experimental*), would then again take on positive meanings by referring to a self-reflexive medical practice that was seen as cautious and judicious, and inspired by the goal of standardizing therapeutic strategies.

Thus, this transition could essentially be described as a shift in medical thinking from a universalism in pathological principles (diseases are caused by the same pathological mechanism, even though they are manifested differently in each individual) at the beginning of the 19th century, towards a universalism of disease-specific diagnosis and therapy at its end (a same disease or nosological entity has the same causes and symptoms regardless of the individual, social, and cultural contexts in which it emerges). The

orientations of the American psychiatric classification of diseases since DSM III fit into this latter paradigm insofar as it is driven by similar ambitions.

From rationalism to empiricism, and from universalism to the principle of specificity

Throughout the nineteenth century, denunciations of rationalistic systems of medical thought became increasingly frequent, leading to an intense debate of medicine's status as a "real science." Vehement critiques, arising from both within and outside the profession, pointed to the inefficacy of its prevalent therapies. Physicians expressed profound doubts, in the medical press and other tribunes, about the epistemological foundations of therapeutic knowledge.

In the medical discourse of the time, a rejection of the simplistic approach to disease and treatment associated with system-based universalism would lead to the gradual development of a new ethos of practice, which held that systematic rules could not be applied to individual patients. Medical practice would henceforth be oriented towards a form of "particularism" based on the *specificity of each patient* and a reliance on empiricism in the determination of therapeutic strategies (Rosenberg, 1979).

A lecture given by a Montreal practitioner to his students provides a good illustration of this rhetoric, when he asserted that

to treat a given disease because it is a given disease, without taking the patient into consideration at all, is the essence of what has been called compartmental medicine. Those who practice it treat all cases of pneumonia the same way, using the same methods and the same drugs each time... treatment must necessarily vary in accordance with the age, sex, temperament, constitution, habits, etc., of the patient (Lachapelle, 1878: 486).

In this proto-bacteriological era, disease was not understood in the clinic as a specific entity but rather, at least in part, as an imbalance in organic and functional forces. One of the central dimensions of aetiological reasoning was the need to take into consideration the external environment (physical, climatic, social, *etc.*). Remedies were thus seen as having *relative* rather than inherent properties, in that they could be effective only when chosen with care and attention to patients' specific characteristics, environments, and the context of their illness.

The primacy of patient-specificity thus made it almost inconceivable—or at least inadmissible from the point of view of clinical practice³—to imagine the existence of a disease-specific treatment. According to a Montreal physician: “there does not exist, as far as I know, among all human disabilities, a single disease that can be cured in each of its stages, among patients of all constitutions, by the same drug.” (Lamarche, 1880: 300). Because the unit of observation and intervention was not the disease itself but the patient, the aetiology of disease was inevitably complex, while therapeutic strategies were to be individually tailored and unique.

This paradigm of therapeutic complexity was clearly used to demonstrate and support a political position for claiming a monopoly over medical practice. Orthodox practitioners argued that they alone possessed sufficient knowledge to effectively manipulate the therapeutic arsenal (Collin a, 1999).

Still, this stance was more than only political and strategic. Specific medication was seen as being too simplistic. It was reminiscent of early nineteenth century dogmatic *rationalism*; it evoked a lack of reflection on the case at hand, and the application of a readymade solution, a kind of pharmacological “*prêt à porter*.” Aetiological reasoning was complex (consideration of the environment, etc.), and therefore therapeutics should, according to contemporary actors, draw on equally complex rationales. Drugs were not to be selected for their specific action on disease, but for a broad range of effects, and were used mainly as symptomatic remedies. *Empiricism*, in the form of trial-and-error, was to be encouraged in manipulating medications that had well-known effects even though the mechanisms of action were unknown.

From patient-specificity to the specificity of drugs: experimental rationalism and the standardisation of clinical reasoning and therapeutic practices

However, by the last decades of the century, therapeutics began to be seen by several renowned specialists as the Achilles’ heel of medicine. They bemoaned the seemingly infinite variability in practices and knowledge; what was considered as valid fluctuated

significantly across time and place. Observers perceived a widening gap between the universalism that had begun to characterise other branches of medical knowledge, and the lack of universally applicable rules in therapeutics. This discrepancy between aetiology and therapeutics, two approaches that ought to have been complementing each other, only emphasized the powerlessness of medical therapeutics (Lachapelle, 1880; Lamarche, 1880).

The most respected figures in the field were now calling for a new approach in which primacy was given to experience, experimental verification, and reasoning (Desrosiers, 1886, 1887). Although experience remained important, there was a progressive shift in the emphasis from experience to application of knowledge.

Besides, as the thermometer and other instruments were gradually being adopted into daily clinical practice, physiological rather than environmental characteristics increasingly gained acceptance. As Warner has shown: «Physicians were progressively turning away from a primary concern with systemic balance to instead break down the body into more discrete units or systems, the functioning of which could then be assessed and therapeutically addressed» (Warner, 1986: 101).

Indeed, the rapid development of new therapies gave practitioners more sensitive control over physiological processes, and a better understanding of pharmacological mechanisms of action. Thus, it was hereafter the symptom or the disease that was “specific,” much more than the patient as a whole.

Beyond their diversity, the systems of classification used in therapeutic treatises in the 1880s-1890s allowed a single substance to belong to several categories according to its modalities of use (e.g., dosage, concomitant use with other substances, use specific to disease stage) (Attfield, 1889). The effectiveness of medication was evaluated not on the basis of a predictable alteration in the course of the disease, but of a predictable physiological response. This is also true of the majority of psychotropic drugs used today, as illustrated in the next section.

During this period of transition, the conception of what is a diagnosis was radically different from now. The notion of specificity, which already occupied a central place in therapeutic thinking, contained three defining elements: the patient, the stages or periods of a disease, and the effects a substance was expected to have on the body or a particular group of organs. The accuracy, effectiveness, expertise, and indispensable knowledge of the physician ultimately sprang from his ability to bring these three elements together and draw on this association to elaborate the most appropriate treatment strategy.

Nonetheless, at the end of the century, there were clear indications that the search for disease-specific treatments was no longer utopian or a manifestation of dogmatic rationalism. The idea that diseases could be approached as discrete entities was gaining wider currency, and would be confirmed by the developments in bacteriology.

For the first time, it was possible to envision treatments that not only would target particularly symptoms, but would also have the power to eradicate the primary cause of a disease. By valorising experimental rationalism, standardising therapeutic practices, and sustaining an active scientific search for disease-specific therapies, it would be possible to show that therapeutics (and, by the same token, clinical practice) had become just as scientific as aetiology.

Likewise, the discovery of the first antidepressants and antipsychotics had aroused similar hopes within psychiatry during the 1950s. Indeed, it seems that there is a very similar period of transition in psychiatry, well before the rise of modern psychopharmacology, where the idea of specific cures for psychiatric conditions began to colonize scientific thinking in the field (Moncrieff, 2008).

At the beginning of the 19th century, aetiological theories confined medical thought to a dogmatic position that eliminated any need for reasoning, and manifested itself as routine and simplified therapeutic strategies. Specifics (a substance that would cure a disease, regardless of the patient's identity) were actually included in the same class as "panacea," a notion opposed to science.

The rejection of specifics worked to bolster the expertise of physicians, who began applying the principle of specificity to patients (rather than medications). The principle of specificity required complex reasoning to establish diagnosis and the causes of a patient's disease and a deployment of therapeutic strategies that were just as complex and unique,

and thus impossible to standardise. The less a therapeutic strategy was replicable or standardised, the more it attested to the “science” of the practitioner.

During the last decades of the nineteenth century, the medical conception of therapeutics was again transformed (and reversed). The extreme variability in prescribing strategies became taken as evidence that therapeutics, as a discipline, was not a “real science” because it was not “replicable.” It was filled with uncertainty because of its extreme variations in place and time. The notion of specificity of drugs once again gained currency and became the object of intense research, as it now represented the best avenue for hopefully reasserting the scientific nature of medicine and therapeutics. The principle of the replicability of therapeutic strategies, and therefore on the standardisation of therapy for a given disease, was the foundation on which the edifice of the “modern” twentieth-century pharmacology was built.

While these shifts may be seen as offshoots of the advancement of science, they are more importantly the product of social, cultural, and professional dynamics. During each of these periods, and still today, different conceptions of therapeutics co-exist in styles of reasoning underlying drug treatments. In the coming pages, my aim is to show how these notions of specificity, universalism, empiricism and rationalism come into play in a more micro-social, contemporary context.

Medical reasoning underlying contemporary psychotropic prescribing practices

Two types of problematic prescribing practices -overprescription and concomitant prescription of psychotropic drugs- will be addressed. To illustrate these, I will focus on two areas of office-based practice: first, the management of depression by GPs and second, that of autism by psychiatrists. Indeed, these two poles of observation offer an interesting contrast that is useful for thinking through the issues surrounding the prescribing practices of psychotropic drugs. However, it is necessary to mention that both these instances represent a schematic arrangement of a more complex and nuanced reality. But first, a word on the DSM and its application in day-to-day practice.

DSM and day-to-day practice

The need for a classification of mental disorders arose in the first decades of the 20th century, as management of hospitals grew more complex (Horwitz & Grob, 2013). In 1952, the first edition of the DSM was published. It was then aimed at clinics in non-hospital settings, since cases of anxiety and depression were starting to be treated by GPs. DSM was designed as a simple diagnostic tool, largely influenced in its first and second iterations by the psychodynamic approach that dominated North American psychiatry.

However, the publication of DSM-III in 1980 marked a significant shift in mental disorders classification. It officially abandons the psychoanalytic and dimensional approach of DSM-II, as its Freudian undertones were considered to be too focused on patients' specifics and lacking in diagnosis precision. This considerable epistemological departure

was aimed at standardization and as an attempt to narrow the gap between psychiatry and the more scientifically legitimate general medicine. According to Whooley and Horwitz (2013: 79):

The revisions to the DSM-III sought to increase reliability through moving psychiatry away from the fluid psychoanalytic understanding of mental illness toward a standardized nosology of fixed disease categories. They overthrew the broad, continuous, and vague concepts of dynamic psychiatry and replaced them with a discrete system of classification that treated mental disorders as discrete diseases.

Yet, mental disorders—because of their intangibility, their resistance to being reduced to “natural” categories or biological markers—cannot be assimilated to other kinds of disease. Indeed, a whole section of psychiatric literature attempts to deal with the tricky issue of false positives (diagnoses attributed without a clinical basis) and false negatives (diagnoses that were not made, but should have been). In this respect, diagnoses such as depression, anxiety problems, and autism, remain problematic (Lafortune & Collin, 2006). It also raises the question of how to differentiate between symptom and syndrome.

All of those ambiguities led to major difficulties in the application of DSM diagnostic categories in day-to-day practice. After the introduction of DSM III in clinical practice, Brown (1987) documented psychiatrists’ ambivalence and resistance towards a strict application of this new classification. His ethnographic study suggests that psychiatrists –

working in a walk-in clinic in the U.S. - resist and avoid primary diagnosis as much as they can. The reasons are manifold, and include scorn for imprecise and ideological nosological categories and resistance to imposed standards by insurance companies, government services or hospital administrations that request an immediate diagnosis regardless of the situation before allowing any treatment to start. In fact, clinicians might give voluntarily vague diagnosis on a first-base only to provide them with time for tentative –trial-and-error treatments. Brown suggests, in sum, that various situational pressures (whether administrative-legal or simply logistical) and the inherent flaws of the DSM itself would account for this high level of avoidance and sarcasm towards the application of the DSM.

Although the DSM has gone through many transformations since the introduction of the DSM III throughout its successive versions (DSM III R (1987); DSM IV (1994); DSM IV-TR (2000); DSM V (2013)), it seems that the same difficulties still arise in the application of day-to-day clinical practice. Over 30 years following this major paradigm shift in psychiatry, the tensions between incentives of standardization and attention to patients' idiosyncrasies constitute more than ever a major issue.

The management of depression: treating an «entité sans clinique»

The diagnosis of depression and the prescription of antidepressants have been on the rise since the last two decades, despite practice guidelines limiting the clinical applications for these drugs (Dickinson et al., 2010; Macdonald et al., 2005). The vast

majority of patients diagnosed with depression are managed through the office-based practices of primary care physicians. While a significant number of recent publications have aimed to capture the factors leading to this rise in the prescription of antidepressants, scholars who have concentrated on the analysis of the phenomenon's underlying reasoning are few. It is on this aspect that I will focus in the coming pages.

Mental suffering or emotional distress, which is often the chief motivation for prescribing antidepressants corresponds in reality to an "*entité sans clinique*" (literally translated as a non-clinical entity), meaning that it is not articulated in terms of a process of clinical reasoning (Haxaire, 2006). Instead, this rather vague category is identified on the basis of various considerations relating to a patient's social situation and conditions of existence.

Indeed, the majority of studies that have examined the reasoning behind the diagnosis and treatment choice among GPs note their difficulty to discern between what they consider as "true" depression (biological, endogenous) and what they consider as "an understandable social misery". (Dickinson et al., 2010; Mitchell et al, 2009; Hyde et al, 2005; Collin et al, 1999). As one GP mentions:

I think for me what is the big dilemma in managing these sort of conditions in general practice is how many of them are simply sad people, with sad lives, coping with difficult life events, which will just with the passage of time and a bit of understanding work through (Hyde et al, 2005: 757).

Mental suffering is seen by these GPs as the global component of a generalised sense of dis-ease. Confronted with this *“entité sans clinique”*, GPs rely on their knowledge of the patients (their personal history and their social and professional backgrounds) but also on their own experience and gut feelings to assess the severity of depression symptoms (Mercier et al., 2011; Mitchell et al., 2009; Hyde et al., 2005). Thus, there are many critiques of guidelines criteria, evaluation scales and recommendations, as those are perceived to be of little use in the clinical decision-making process leading to the prescribing of antidepressants (Mercier et al., 2011; Mitchell et al., 2009). Even though what is seen as the objective viewpoint of the DSM can be useful to diminish clinical or diagnostic uncertainty, the lack of a comprehensive perspective becomes a major constraint to the application of DSM categories and guideline recommendations (Mitchell et al., 2009).

In most of the studies, GPs express processes of reasoning in which they refer to mental suffering as a general disruption of individual equilibrium. Medications are seen as a panacea of sorts, likely to aid in the re-establishment of this equilibrium, to help people confront their problems, to cope with their difficulties: «I see antidepressants ... as an enabler which is something very important - and enables people to take control over themselves.» (Hyde et al., 2005: 758). It can be argued that the propensity to prescribe antidepressants despite the associated uncertainties also reveals a «profession of faith» on the part of GPs towards second and third generation ADs (SSRIs and beyond). Indeed, a significant number of studies (Mercier et al., 2011; Dickinson et al., 2010; Mitchell et al., 2009; Hyde et al., 2005; Collin et al., 1999) show that GPs view

ADs as very safe (having few adverse effects and no risk of addiction), and effective in treating a broad range of mental health conditions, which gives GPs a sense of self-confidence (Mitchell et al., 2009; Hyde et al., 2005: 759):

I think the Prozac's of this world are so good because now you've got the license to treat anxiety and panic symptoms. You don't actually have to make a diagnosis; the antidepressants are going to cover everything from mild depression to severe anxiety.

Indeed, using pharmaceuticals as a therapeutic test, without a «real diagnosis», is not unusual (Mercier et al., 2013; Mercier et al., 2011; McPherson & Armstrong, 2009). This suggests that medications have become central to the diagnostic process (Collin et al., 1999: 47):

...you're going to put someone on antidepressants for...I don't know...six weeks and if it doesn't work, and then you realise that you've totally been barking up the wrong tree, this thing isn't a depression, then, well, (...) you cut out the antidepressants.

In dealing with a clinical entity, which is, ultimately, quite vague - even though it is officially translated into administrative data as an outcome of a specific diagnosis matching the DSM categories - it is the patient, who, clearly, becomes the specific element of reasoning. However, the way GPs intellectually construct depression implicitly

acknowledges the idea of an «entité sans clinique». As in most studies on the topic, the interviewed physicians tend to describe their depressed patients in non-medical terms (McPherson & Armstrong, 2009; Hyde et al., 2005; Collin et al., 1999). Although attention is paid to the idiosyncrasies of patients, the underlying reasoning related to prescribing practices is not of clinical nature. Rather, it seems related to a sort of dogmatic rationalism founded on the use of ADs as a panacea, as a universal manner in which to manage the loss of equilibrium in patients' lives. Indeed, it is this need for action that is invoked by GPs as the impetus to prescribe ADs : «I think as GPs, if somebody comes to see you, you feel obliged to do something or seem to be doing something.» (Hyde et al., 2005; 761).

Concomitant psychotropic prescribing and symptomatic reasoning

Since the last two decades, there has been a significant increase in the number of adults and children treated in office-base psychiatry who are managed with antipsychotics. These drugs are among the most prescribed psychoactive pharmaceuticals, amenable to a vast range of mental health problems, ranging from schizophrenia and bipolar disorder in adults to autistic spectrum disorders, ADHD and other disruptive behavioral disorders in children. (Olfson et al., 2012). While antipsychotics are considered as primary treatment for these psychiatric disorders, they are also used as adjunctive treatment for anxiety and major depressive disorders (Olfson et al., 2012: 1247):

As a result, the proportion of second-generation antipsychotic medications

prescribed to treat schizophrenia has decreased from 51% (1995-1996) to 24% (2007-2008), while antipsychotic treatment of anxiety disorders in adults and youths has roughly doubled.

This phenomenon is also part and parcel of the concomitant prescribing, or polypharmacy, trend in office-based psychiatry. Polypharmacy can be defined as the simultaneous prescribing of a number of psychotropic medications (antidepressants, antipsychotics, sedative-hypnotics, and antidepressant-antipsychotic combinations) (Zito et al., 2008; Lafortune & Collin, 2006). The proportion of visits resulting in the prescription of three different psychotropic medications or more has increased from 20 to 33% between 1996 and 2006 (Mojtabai et al., 2010).

A growing number of voices within the field of psychiatry are denouncing concomitant prescribing or polypharmacy, particularly when it comes to antipsychotics: «Some polypharmacy is rational and evidence based, some neither. Antipsychotic polypharmacy remains stubbornly widespread despite condemnation of the practice by numerous bodies.»(Taylor, 2010 : 41).

Studies suggest that psychiatrists, more than GPs, prescribe concomitant psychotropic medications, and show a greater variation in their prescribing practices (Safer et al., 2003). They are also more likely than GPs to diagnose multiple mental disorders for a single patient (Olfson et al., 2012).

Clinical profiles that are characterised as mixed or “multi-problematic,” are revealing of a shift – or at least a tension with the dominant style - in therapeutic reasoning. Indeed, the therapeutic approach based on the primary diagnosis - the primary-illness approach - is supplemented, and sometimes superseded by an additional symptom-based approach - the target-symptom approach (Connor, 2002). This latter strategy targets symptoms, regardless of the primary diagnosis. Prescribing practices thus shift away from a syndrome-based logic to one that considers symptoms and their magnitude (such as thresholds of severity and cut-off points). This last paradigm accounts for 80% of prescriptions given to children and teenagers (Jensen et al., 1999). In promoting a propensity for concomitant prescribing, this symptom-based approach in some ways eludes the classification of discrete entities adopted by the DSM.

Although little work has been done on the reasoning underlying concomitant prescribing and complex prescribing patterns, an interview with a Montréal-based paediatric psychiatrist offers a window into how links are created between knowledge and clinical experience (Chamak, 2006). The interview reveals a complex and ambiguous relationship to medication in the management of children with autistic disorder, a relationship that draws on scrupulous observation of cases in a way that is somewhat reminiscent of experimental rationalism favoured by late-nineteenth century physicians. By illustrating, to some extent, a prescribing logic that is piecemeal and which takes varying forms, as well as a stance of extreme relativism with respect to therapeutic strategies, the interview reveals what generally escapes quantitative analyses of prescribing practices, namely, complex processes of therapeutic reasoning.

The concern with the careful management of symptoms—on the basis of reasoning about the physical and behavioural effects of the disorder on patients—is what guides the choice of therapy. We find here a conception of disorders as varying according to different phases, an attention to, and experimentation with dosage that is also grounded in precise knowledge of drug effects.

Hence, choosing therapeutic substances calls upon a form of reasoning that focuses on mechanisms of action and/or the (expected) effects of each of these substances on symptoms. A process of trial-and-error is also guiding the therapeutic strategy (Chamak, 2006: 167):

The idea of using venlafaxine or mirtazapine was to improve the utilisation of noradrenalin. We were a bit worried at first and we were relieved when we saw that children were appeased by venlafaxine and able to accept a new situation.

Concomitant prescribing is manifested here as a complex management of substances (Chamak, 2006: 167):

If there is agitation, a lot of violence, self-mutilation, I prescribe mirtazapine in combination with other antidepressants that have powerful effects even in relatively low doses. Instead of increasing the dose of mirtazapine, I add citalopram in very low doses which potentiates the effect of mirtazapine. If I

don't succeed with the onslaught of antidepressants, I resort to tranquilizers but avoid benzodiazepines.

This case-by-case evaluation and subtle re-adjustment of dosage levels and substances, is somehow reminiscent of observation of facts and reliance on clinical experience — that was prevalent in the last third of the nineteenth century when experimental rationalism was becoming the dominant paradigm.

Although alarming statistics of concomitant prescription may be explained by fads, routine or lack of knowledge concerning drugs, this is not necessarily the case. It can also be the product of an intensive and complex reflexion around therapeutic strategies as the example above reveals. What is particularly interesting in this matter is that the same result can embrace completely opposite styles of reasoning.

Conclusion

Today's psychotropic prescribing practices replay, in a rather striking way, the dilemmas faced by general medicine in the nineteenth century, as well as its oscillation between specificity and universalism. On one side, we have the issues surrounding the management of depression and, on the other, of autism. The first involves little clinical reasoning; indeed, the problem is to respond to an "*entité sans clinique*," a global dis-ease that seems to be more akin to a disruption of individual equilibrium, than to a discrete

disease. ADs become a panacea of sorts, a pharmacological “prêt à porter”, evocative of early nineteenth century dogmatic rationalism.

However, this first style of reasoning co-exists alongside another, one that emerges from the management of complex disorders such as autism. While in this case prescribing practices are based upon sophisticated clinical reasoning, their therapeutic strategies are directed against specific symptoms and not against mental illnesses as discrete entities. Their style of reasoning evokes the experimental rationalism of the late nineteenth century, by shifting the medical gaze from environmental characteristics towards individual, physiological ones and by breaking down the patient’s condition into more discrete units or symptoms. Within this style of reasoning, the effectiveness of medications is evaluated on the basis of a predictable physiological response instead of a predictable alteration in the course of disease. The emphasis here needs to be placed on the distinction between two styles of reasoning and not between GPs and psychiatrists’ practices.

It is therefore interesting to note that, today, voices in psychiatry and general medicine are making themselves heard denouncing the failings of contemporary nosography regarding the appropriate management of mental health problems. From the standpoint of GPs who must manage depression, we note that despite meta-analyses showing little difference in efficacy when ADs are compared to placebo, prescription of ADs is still on the rise (Moscrop, 2012; Middleton and Moncrieff, 2011). According to these voices, this phenomenon is more likely attributed to the inadequacies of the diagnostic framework imposed by the DSM than to the GP’s lack of knowledge. They insist on the

necessity of a comprehensive approach, a diagnostic framework that articulates the bio-psycho-social dimensions and places at the centre of reasoning and therapeutic practices the contextualisation of depression and the patient's evolution with the disease. In sum, there is a need for a dimensional approach rather than a categorical one.

Among psychiatrists, a critical discourse aimed at the dominant paradigm also leans on the observation that there is a rise in concomitant prescribing practices, which goes against evidence-based recommendations (Bracken et al., 2012). According to this critical discourse, psychiatry should move beyond the “technological paradigm” (Bracken et al., 2012: 430):

Through the 19th and 20th centuries, psychiatry held fast to the idea that mental health problems are best understood through a biomedical idiom; that problems with feelings, thoughts, behaviours and relationships can be fully grasped with the same sort of scientific tools that we use to investigate problems with our livers and lungs. In more recent decades, models of cognitive psychology, such as 'information processing', have been developed that work with the same technical idiom. (...) We believe that there is mounting evidence that good practice in psychiatry primarily involves engagement with the non-technical dimensions of our work such as relationships, meanings and values.

Are we at the eve of a paradigm shift where the primacy of the patient's specificity would replace the one of the disease and the medication in mental health? The ethos of a psychiatry founded on a form of universalism, according to which the aetiologies associated with a diverse range of mental health disorders are presumed to be applicable regardless of variations between individuals still remains a sort of discursive fiction quite detached from the day-to-day practice in mental health.

BIBLIOGRAPHY

Ackerknecht EH (1973) *Therapeutics from the Primitives to the Twentieth Century*. New York: Harper.

Angell M (2011a) The epidemic of mental illness: why. *The New York Review of Books*, <http://www.nybooks.com/articles/archives/2011/jun/23/epidemic-mental-illness-why/>.

Angell M (2011b) The illusions of Psychiatry. *The New York Review of Books*, <http://www.nybooks.com/articles/archives/2011/jul/14/illusions-of-psychiatry/>.

Berman A (1978) The Heroic Approach in 19th Century Therapeutics. In: Walzer J, Leavitt JW and Numbers RL (eds) *Sickness and Health in America: Readings in the History of Medicine and Public Health*. Madison (Wis): University of Wisconsin Press.

Bhatara V, Feil M, Hoagwood K, Vitiello B, and Zima B (2004) National trends in concomitant psychotropic medication with stimulants in pediatric visits: Practice versus knowledge. *Journal of Attention Disorders* 7: 217-226.

Bleakley A, Farrow R, Gould D, and Marshall R (2003). Making sense of clinical reasoning: judgement and the evidence of the senses. *Medical education* 37: 544–552.

Bracken P et al. (2012) Psychiatry beyond the current paradigm. *The British Journal of*

Psychiatry, 201(6): 430-434.

Bradley CP (1992) Uncomfortable prescribing decisions: a critical incident study. *British Medical Journal* 304(6822): 294.

Brown, P (1987) Diagnostic Conflict and Contradiction in Psychiatry. *Journal of Health and Social behaviour* 28: 37-50.

Bynum WF (1994). *Science and the practice of medicine in the nineteenth century*. Cambridge (UK); New York: Cambridge University Press.

Chamak B (2006) Les logiques de prescription dans le cas de l'autisme. In : Collin J, Otero M, Monnais L (eds) *Le médicament au cœur de la socialité contemporaine. Regards croisés sur un objet complexe*. Collection Problèmes Sociaux Intervention Sociale. Ste-Foy: Presses de l'Université du Québec: 253-270.

Collin J, Damestoy N, Lalande R (1999) « La construction d'une rationalité : les médecins et la prescription de médicaments psychotropes ». *Sciences sociales et santé* vol.17(2):31-53.

Collin J. (1999 a) « Entre discours et pratiques : les médecins montréalais face à la thérapeutique, 1869-1890 ». *Revue d'histoire de l'Amérique française* vol.53(1):61-92,1999.

Collin J. (1999 b) « La thérapeutique à Montréal à la fin du XIX^e siècle : analyse d'un ordonnancier révélateur des pratiques de prescription des médecins » dans : Faure O (dir.). *Les thérapeutiques : savoirs et usages*, Lyon, Collection Fondation Marcel Mérieux, pp. 267-283, 1999.

Connor DF (2002) *Aggression and antisocial behavior in children and adolescents : research and treatment*. New York: Guilford Press.

Conrad, P (2013) Medicalization: Changing Contours, Characteristics, and Contexts. In Cockerham, WC (ed.) *Medical Sociology on the Move*. New York: Springer: 195–214

Desrosiers HE (1886) Quelques notions générales de thérapeutique. Les maladies et les malades. La médication rationnelle et la médication empirique. *Union Médicale du Canada* 15: 336-343.

Desrosiers HE (1887) Revue trimestrielle de thérapeutique et de matière médicale». *Union Médicale du Canada* 16, 1887 : 225-231.

Dickinson R et al. (2010) Long-term prescribing of antidepressants in the older population: a qualitative study. *British Journal of General Practice* 60(573): e144–e155.

Foucault M (1971) Nietzsche, la généalogie, l'histoire. In *Hommage à Jean Hyppolite*, Paris : Presses Universitaires de France.

Foucault M (2003) *L'ordre du discours*, Paris : Gallimard.

Frances A (2013) *Saving Normal: An Insider's Revolt Against Out-of-Control Psychiatric Diagnosis, DSM-V, Big Pharma, and the Medicalization of Ordinary Life*, New York: Harper Collins.

Grob GN and Horwitz AV (2009) *Diagnosis, Therapy, and Evidence: Conundrums in Modern American Medicine*. New Brunswick (NJ): Rutgers University Press.

Hacking I (1992) Statistical Language, Statistical Truth and Statistical Reason: The Self—Authentication of a Style of Scientific Reasoning. *E. McMullin. The Social Dimensions of Science*.

Haxaire C (2006) Entre le psy et l'assistante sociale. Où mène la prescription d'antidépresseurs quand la souffrance se fait sociale. In Collin J, Otero M, Monnais L (eds) *Le médicament au cœur de la socialité contemporaine. Regards croisés sur un objet complexe*. Collection Problèmes Sociaux Intervention Sociale. Ste-Foy: Presses de l'Université du Québec: 199-222.

Hoblyn J et al. (2006) Factors in Choosing Atypical Antipsychotics: Toward Understanding the Bases of Physicians' Prescribing Decisions. *Journal of Psychiatric Research* 40: 160-166.

Horwitz AV and Wakefield JC (2007) *The loss of sadness: How psychiatry transformed normal sorrow into depressive disorder*. Cambridge (UK); New York: Oxford University Press.

Hyde J et al. (2005) A qualitative study exploring how GPs decide to prescribe antidepressants. *British Journal of General Practice*, 55(519): 755–762.

Jensen PS, Bhatara VS, Vitiello B, Hoagwood K, Feil M, and Burke LB (1999) Psychoactive medication prescribing practices for U.S. children: gaps between research and clinical practice. *Journal of the American Academy of Child and Adolescent Psychiatry* 38(5): 557-565.

Jutel, A (2011) *Putting a name to it: diagnosis in contemporary society*, Baltimore: Johns Hopkins University Press.

Kutchins H & Kirk, SA (1997) *Making us Crazy : DSM: the Psychiatric Bible and the Creation of Mental Disorders*, New York: Free Press

Lachapelle S (1878) Quelques considérations sur la thérapeutique au sujet de la médication alcoolique dans la pneumonie. *Union Médicale du Canada* 17: 246.

Lachapelle S (1880) Quelques erreurs en thérapeutique, *Union Médicale du Canada* 9 :241-244.

Lafortune D, Collin J (2006) La prescription de médicaments psychotropes aux enfants et adolescents: prévalence, politiques, pratiques et pistes de recherche. *Canadian Psychology* 47: 155–169.

Lamarche A (1880) Origines de la médecine et préjugés populaires *Union Médicale du Canada* 19: 289-304.

Matanovic, SM, and Vlahovic-Palcevski, V (2012) Potentially Inappropriate Medication in the Elderly: a Comprehensive Protocol. *European Journal of Clinical Pharmacology* 68: 1123-1138.

Macdonald S et al. (2009) 'A coal face option': GPs' perspectives on the rise in antidepressant prescribing. *British Journal of General Practice*, 59(566) : e299–e307.

McPherson S, Armstrong, D (2009) Negotiating 'Depression' in Primary Care: a Qualitative Study. *Social Science & Medicine* 69: 1137-1143.

Mercier A et al. (2013) Evidence of prescription of antidepressants for non-psychiatric conditions in primary care: an analysis of guidelines and systematic reviews. *BMC Family Practice*, 14(55): 55–14.

Mercier A et al. (2011) Understanding the prescription of antidepressants: a Qualitative Study among French GPs. *BMC Family Practice*, 12(99): 1-9.

Middleton H and Moncrieff J (2011) 'They won't do any harm and might do some good': time to think again on the use of antidepressants? *British Journal of General Practice*, 61(582): 47–49.

Mitchell AJ, Vaze A and Rao S (2009) Clinical diagnosis of depression in primary care: a

meta-analysis. *The Lancet* (374): 609–619.

Mojtabai R and Olfson M (2010) National trends in psychotropic medication polypharmacy in office-based psychiatry. *Archives of General Psychiatry*, 67(1): 26–36
study among French GPs. *BMC family practice*, 12(1): 99.

Moncrieff J (2008) *The myth of the chemical cure: a critique of psychiatric drug treatment*. Houndmills, Basingstoke, Hampshire : Palgrave Macmillan.

Moncrieff J (1999) An investigation into the precedents of modern drug treatment in psychiatry. *History of Psychiatry* 10(40 Pt 4): 475-490.

Moscrop A (2012) An end to depression in primary care? *British Journal of General Practice*, 62(602): e656–e658.

Olfson M et al. (2012) National trends in the office-based treatment of children, adolescents, and adults with antipsychotics. *Archives of general psychiatry*, 69(12):1247–1256.

Pellegrino ED (1979) Sociocultural Impact of Modern Therapeutics. In Vogel M and Rosenberg CE (eds) *The Therapeutic Revolution: Essays in the Social History of American Medicine*. Philadelphia: University of Pennsylvania Press: 245-268.

Rosenberg CE (1979) The Therapeutic Revolution: Medicine, Meaning and Social Change. In Vogel M and Rosenberg CE (eds) *The Therapeutic Revolution: Essays in the Social History of American Medicine*. Philadelphia: University of Pennsylvania Press.

Safer DJ, Zito JM, and DosReis S (2003) Concomitant psychotropic medication for youths. *American Journal of Psychiatry* 160(3): 438-449.

Siriwardena AN (2010) Why do GPs prescribe psychotropic drugs when they would rather provide alternative psychological interventions? *British Journal of General Practice*, 60(573): 241-242.

Tamblyn R (2004) Improving patient safety through computerized drug management: the devil is in the details. *Healthc Pap* 5(3): 52-68; discussion 82-54.

Taylor, D (2010) Antipsychotic polypharmacy-confusion reigns. *The Psychiatrist*, 34(2): 41-43.

Warner JH (1986) *The therapeutic perspective : medical practice, knowledge, and identity in America, 1820-1885*. Cambridge (Mass): Harvard University Press.

Williams S, Martin P and J Gabe (2011) The Pharmaceuticalisation of society? A framework for analysis, *Sociology of Health & Illness*, 33(5): 710-725

Whooley, O, Horwitz, AV (2013) The Paradox of Professional Success: Grand Ambition, Furious Resistance, and the Derailment of the DSM-5 Revision Process: 75-92. In Paris, J and Philips J, *Making the DSM-5*, New York: Springer

Zito JM, Safer DJ, dos Reis S, Gardner JF, Magder L, Soeken K, et al. (2003) Psychotropic practice patterns for youth: a 10-year perspective. *Archives of Pediatrics and Adolescent Medicine* 157(1): 17-25.

¹ DSM (*Diagnostic Statistical Manual*) is the American Psychiatric Association's classification of mental diseases.

² The historical section of this paper is based on my research concerning the prescribing practices of physicians and the spread of scientific innovation pertaining to pharmaceutical therapy in Montreal, 1869-1907, funded by the Conseil de recherche en sciences humaines du Canada and by the Hannah Institute for the History of Medicine (1997-2000).

³ Exceptions here are quinine and mercury, widely used as specifics in the treatment of fevers (quinine) and of syphilis (mercury).