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Title: The Impact of Medical Risk Rationalities on Laypeople Diagnosed with Hypertension: Or *when Meaning Is at Risk*

1. Introduction

As proposed by the anthropologist Sachs in the work he published in the mid-nineties, the preventive act in medicine and its inherent idea of risk imply for the individual that he renders visible what is hidden from his sight and senses and thus, he is required to partake in an entirely new and unexpected way of experiencing an illness (Sachs, 1995). Indeed, one cannot exclude that medicine's preventive ambitions have a radical impact on experiencing an illness and provide a new path in the way one sees and acts in matters of health. Medicine achieves this through numerous population-based programs that monitor the health statuses by way of the daily and constant disclosure of new data about health hazards – data taken from large-scale epidemiological studies which are themselves broadcasted at large – and again, through the identification and the objective & scientific transmission of the individual's health risks. Around the mid-nineties, Skolbekken (1995) moreover associated the idea to a contagious phenomenon with the impressive increase in clinical and epidemiological studies produced over the past decade, which would objectify the discourse related to risk. During the 1987 to 1991 period alone, the researcher listed over 80,000 scientific articles revolving around the study of risk factors and risks associated with prophylactic and curative medicine, which would be published as much in journals dedicated to general practitioners than those dedicated to specialists. It appears that this ever increasing number of publications corresponds to a new tendency in medicine, which can be translated in a willingness to prolong one's life expectancy through rapid and precocious interventions on the state of a person's health (Forde, 1998; Skolbekken, 1995).

However, not only is risk at the heart of clinical thinking, but it is also deeply imbedded in an individual's existence. More than ever, the contemporary individual seems to express a certain scepticism or distrust towards medical science and biomedicine, and in parallel, testifies to an ever-growing preoccupation towards health risks. This broadened distrust can in part be attributed to the apparent insensitivity from government authorities and experts to truly take into account and hence, recognize the people's preoccupations and the apprehensions towards the risks. Moreover, this distrust can also stem from the existence of a counterpart to the discourse on health risk from the population itself. Based upon this topic, a certain number of studies have since 1980 demonstrated a mobilisation and critical analysis effort by ordinary citizens, that some have labelled as *popular epidemiology*, regarding the scientific communication of the risks involved in certain environmental (pollution, toxic agents) and technological (nuclear energy) issues which are preoccupying for a population's health. These efforts have clearly demonstrated the gap between the expert and the layperson perspectives with respect to the definition of risk, its acceptability or even, the means of regulating it (Brown, 1992). This is without taking into account that today's ordinary citizen has better opportunities and, it seems, greater abilities in making choices with regards to certain health issues on the basis of his broader scope of knowledge, which is the result of an improved access to official, alternative, and media sources.

By this same fact, it seems that people are better suited to distance themselves from medical expertise and embrace other means of seeing and doing things when faced with matters of health and disease (Williams & Calnan, 1996).

But is this truly the case? And up to what point? What effect does an official or expert discourse produce on an individual conscious? This article is a sort of starting point of a thinking process¹ about the nature and the expression of these effects through the examination of a modern health issue, that of arterial hypertension (HBP). This problematic is of particular interest since it has mobilized the main forces of preventive medicine over the past several years. Arterial hypertension implies the idea of detecting the generally asymptomatic individuals and requires on their behalf, an active participation in the medical and monitoring interventions without the condition having either forcefully or ever manifested itself. This two-fold observation is to be used as a basis for our rational. An initial data source will firstly allow us, through the examination of clinical or medical data about arterial hypertension, to determine the matter by which the official discourses define the hypertensive condition and construct risk. A second source will enlighten the manner in which a layperson's knowledge expresses itself with regards to these same questions through a secondary analysis of the results from the two Quebec qualitative studies dedicated to people with hypertension. We will then research the levels of correspondence and variability between the official and layperson perspectives regarding the manner in which a hypertensive condition is constructed and in particular, the risk. However and most importantly, we will question ourselves about the potential effects of clinical reasoning on the risk involved in the consciousness of the individuals who are suffering from HBP.

2. The risk and its recording in the collective imagination

But firstly, how does risk record itself in our collective imagination? The German sociologist Ulrich Beck (2001) brought forth in the work he published in the nineties the idea that the cultural shift that began during the twentieth century in heavily-industrialised societies would be the basis of the modern-day preoccupations about risk. According to Beck (2001), *modern* western civilisations, that he qualifies as *societies of risk*, entered into a new order and are more than ever exposed to new demands. Split by a rupture within modernity, these societies have emancipated themselves of the contours of the classic industrialised society in order to adopt a new one, the society (industrial) of risk (Beck, 2001; Giddens, 1991). The *society of risk* is marked by new realities that would considerably distinguish it from the previous eras. On the one hand, the ills, the perils and the threats no longer come from outside, but are now produced within the societies themselves. Known as reflective, the societies of risk are aware of the fact that even if they contribute to the development of scientific and technological progress, at the same time they are also participating in the creation and the spreading of the threats and the risks generated by progress. While on the other hand, the industrial or professional risks can no longer be associated with circumscribed places; they are now global and transcend the borders between nations (Beck, 2001; Perreti-Watel, 2003).

¹ This effort is part of a process enacted through the framework of a study actually underway, funded by the Canadian Institutes of Health Research (CIHR) Collin, J, Proulx, M., Laurier, C., Doucet, H., Monnais, L., Beaulieu, M-D. *Hypertension artérielle, circulation des savoirs et perception du risque.*

Nevertheless, if risk is now an unflappable reality for heavily-industrialised societies, the concept is not recent. Apparently, the concept of risk would date back to the fourteenth century in the form of collective insurances and religious indulgences. As maritime transportation flourished and represented the important merchant economy of the period, means would progressively be defined to establish methods to compensate the economic deficits ensued from the lost of cargo due to bad weather, shipwrecks, pirates, and contamination of the stock; wherein lies the creation of the first collective insurances². The concept of risk was then geared towards insuring the potential losses of merchandise in transit and would afterwards spread to other fields and eventually, human injuries; for example, work-related and carriage accidents. As of the nineteenth century, risk is associated to accidents related to the industrially-developed heavy machinery, carriages, mechanized weaving looms, and so on, which would bring forth the principle of the accountability of reparations. Three characteristics of risk would then appear: it can be measured; it has collective consequences; and it represents a financial loss of economic capital. In one case as in another, it reflected uncertainties that would need to be controlled (Perreti-Watel, 2003).

The field of studies on health-related risks stems from these ancient concepts. Greatly documented over the past forty years, it firstly directed its attention towards the threats that the physical environment has on a population's health. The object of the initial endeavours is to evaluate the probability of the occurrences of serious accidents due to industrial installations and other types of installations deemed hazardous (roadwork), or toxic agents in the environment (pollution); their aim is to describe their potential of negative impacts. The field is then split into two other fields of research: risk assessment and risk management (OMS, 2002). The goal of *risk assessment* is either to define scientific methods to identify and describe the dangers, or to assess the probabilities of unfavourable consequences on the health of both the collective and individual; the endeavours had as a goal to submit the best possible estimates of the probabilities of unfavourable outcomes related to health issues to those responsible of public policies. *Risk management* calls upon the regulatory mechanisms that have been instigated by various decisional bodies (governmental, public health) to insure the public's protection. The approach would at times be educational, consisting of making the population aware of a risk in a way that it comes to voluntarily adopt an action to diminish or avoid risk; it would at other times be economic, consisting of the enactment of either reinforcements or sanctions (cigarette taxes) in order to control risk (Somers, 1995).

These positive and quantitative approaches regarding risk constituted and still constitute the basis of health-related research and one cannot deny that they have had certain implications on the practice of clinical medicine and public health. In fact, up until recently, the tendency would have been to consider that only the scientific analyses and predictions constituted objective and especially, feasible data, the layperson's perceptions being obviously perceived as subjective, even irrational. These concepts would become guidelines for the development of policies to master risk that would basically be aimed at correcting the implicated population's misunderstanding of risk. In the nineties, this positivist perspective of health risk started to be doubted, notably influenced by the increasing presence on the political sanitary scene of various

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Peretti-Watel P. 2000. Variété historique des perceptions du risque : croyance face à la damnation. Dans Peretti-Watel P. 2000. Sociologie du risque, chap. 2. Armand Colin, Paris.

lobby groups, such as various consumer or patient (HIV/AIDS, diabetes, cancer) associations. These groups' critics brought forth the high level of scientific doubt associated with risk assessment models (e.g. calculations of probabilities) that were proposed by experts; through their actions, these groups gained a higher degree of assurance in defending their own health risk assessments and interpretation (OMS, 2002).

Moreover, this political perspective regarding risk was particularly obvious in the field of health, be it in the sector of either clinical medicine or public health. The theorists preoccupied themselves with making critical analyses of the discourses from experts and their repercussions on the population's wealth fare and on society as a whole. The thinking was based upon the stakes that stemmed from governmental strategies in their attempts to standardize a population's behaviour through control and monitoring systems (Lupton, 2003; Skolbekken (1995). Some researchers also questioned the different forms of knowledge – through per example, statistics or again epidemiology – and the ideologies carried forth by numerous studies on health risk (Dean, 1999; OMS, 2002). The endeavours would then lean towards questioning the role of expert knowledge relating to risk conceptualisation and media coverage, most notably in relation with health (Lupton, 2005). It is within this framework that our reasoning is positioned.

3. Official discourse about HBP and objectified risk

Everywhere from the daily papers, health magazines to medical clinics, the public is exposed to information on arterial hypertension and its management. Not only is the problem highly mediatised, but it would also be widespread. In fact, it appears that we are increasingly hypertensive. According to some sources, HBP now affects nearly 20% of the adult population, as much in developed societies than in those under development. HBP is most often asymptomatic, except in the condition's advanced states. A large number of individuals are not even aware that they are ill and among them that know that they are hypertensive, several will never have their pressure regulated. More than ever, methods are being deployed worldwide to fight the condition's progress, which is apparently responsible for nearly 40% of all of the worldwide deaths (OMS, 2002).

The preoccupations regarding HBP are not recent in clinical medicine and public health. They date back to the forties (Nuland, 1989) when the post-war era involved industrial, economic and socially-important developments (Bozzini et al., 1981), which would considerably alter a population's living conditions. Societies of the time would undergo a major epidemiological transition, chronic diseases and cancer would surpass infectious diseases as primary causes of death and morbidity (World Health Organization, [WHO], 1993). It is also at the end of the fifties that people diagnosed with HBP would be able to access therapeutic regimens without too many side effects (Genest, 1998). The market is slowly starting to offer a series of medications, gathered around the major classes of medications currently available; diuretics, calcium channel blockers, B-blockers & central-acting agents, angiotensin-converting enzyme inhibitors (ACE), and most recently, angiotensin II inhibitors (Feldman et al., 1999). These major types of hypertensive agents would demonstrate their efficiency in reducing arterial tension (Drouin and Milot, 2002).

The medical approach inserts itself here in the wide array of major transformations that have impacted modern medicine – which some would label as the new *bio-medicalisation* with one of

its pivotal concepts being the idea of risk and monitoring (Clarke et al., 2003). Indeed, risk occupies a central position in the treatment of HBP. Herein understood as either a statistical concept or as an objective datum to which it is possible to apply measures of reduction and regulation (Lupton, 1999), risk in the context of treating HBP corresponds to the probability calculations associated with different arterial pressure thresholds wherein the consequences can be harmful to the individual (Lupton, 2003; Sunday and Eyles, 2001; Kavanagh and Broom, 1998). These risk calculations stem from large-scale epidemiological studies which prospectively focused their attention on the potentially harmful health events (or factors) in a manner that avoids morbidity or premature deaths in individuals (Hayes, 1993; Kavanagh and Broom, 1998).

Operationally speaking, HBP would be defined on the basis of two tensorial values expressed in millilitres of mercury (mmHg): the maximum systolic pressure which translates the pressure within the blood vessels during the heart's contractions, and the minimum diastolic pressure which occurs between the heart's contractions when it is itself filled with blood, originating from the veins and the lungs. The diagnosis of HBP would be applied at stage 1 of the condition, for tensorial values either greater or equal to 140 mmHg and/or 90 mmHg. These values represent the thresholds above which, an individual is at risk of mid or long term cardiovascular complications (Drouin & Milot, 2002). This risk has frequently been described (SQH, 2002).

These tensorial thresholds are obviously arbitrary and based upon conventions between researchers in accordance with the critical analysis of data from the most recent clinical, epidemiological, and population-based studies. They have evolved since the first expert consensus around the mid-sixties and have since been systematically revised. Therefore, one can observe that changes have occurred, over the years, in the manner in which the condition is perceived, or then again, in the definition of the base levels when it seems preferable to start medication therapies. These changes have brought forth a set of questions that has been debated among this field's general practitioners and specialists as well as among the clinical and fundamental researchers. Up to what point must one decrease the tensorial numbers? Does the health of those individuals who suffer from a slight or mild case of arterial tension truly benefit from treatments? Is it even worth treating them? (Furberg et al., 1994; Jern et al., 1997; McAlister et al., 2000). Yet, there actually seems to be a tendency to want to keep the individual's tensorial threshold levels as low as possible. Indeed, the scientific community seems to put a lot of faith in medication-based treatments at precocious stages of the hypertensive condition. The expert consensus actually establishes that an individual's *normal* arterial pressure must be equal or lower than 130mm Hg and/or 85mm Hg and that the *optimal* must be equal or lower than 120mm Hg and/or 80mm Hg (Drouin & Milot, 2002).

However and of particular interest for our discourse, it is interesting to read that in the medical nomenclature HBP is mainly represented as a cardiovascular risk factor, with as a consequence coronarian cardiopathy, congestive heart failure, a stroke or renal dysfunction (OMS, 1996). The hypertensive condition is herein understood as one risk factor among others (smoking, hypercholesterolemia, hereditary) that may put an individual at risk of a mid to long term cardiovascular disease. The risk is global since it accounts for all of these risk factors and/or predispositions and is also stratifying, the actual probing factors that allow for the identification of gradually-increased risk levels, going from low to high. Several stratified risk scales are moreover available to doctors in order to assist them in the diagnosis and treatment of HBP (Drouin and

Milot, 2002). In examining the official sites of Quebec research societies, for example, we also witness that risk scales are currently available to the general public, which allows each individual to assess his or her own cardiovascular risk.

In practice, the question for the professional is in fact to define what is better for the patient, that is to assess the actual health-related benefits or advantages in relationship with what the patient will receive from the treatment in addition to selecting the right course of action (Mann, 2000). The individual will be subjected to monitoring in order to determine if whether or not there is absence of mid or long term risk, risk being established based on the synthesis of different factors (Sunday and Eyles, 2001).

We are not claiming here that we have drawn an exhaustive portrait of the clinical perspective regarding arterial hypertension. Regardless, this review does provide an overview of the scientific and clinical reasoning that is at the heart of the medical approach within the context of HBP care. A second data source will now allow for the demonstration of the manner through which a layperson's knowledge expresses itself regarding arterial hypertension and its management.

4. The secular risk and construction of HBP

We have completed a second analysis of a corpus of data stemming from two Quebec qualitative studies, one is currently underway. The goal was to give some meaning to research results that were produced for another purpose, most notably to analyse the medication non-observance within the context of patients having been diagnosed with arterial hypertension. In both cases, the participants were invited to express themselves on how they define HBP, their reaction upon being told of the diagnosis and the fact of having to take anti-hypertension medication, how they are coping with the condition, and the difficulties involved in taking the medication. It must be noted that the participants were not invited to explicitly express themselves about risk. However, we were able to observe that they had the tendency to subjectively express themselves about risk as they would at times associate it with the condition and most frequently, with the medication.

The initial study has been underway since 2003³ (we are actively participating in the data analysis). This study was developed on the basis of recurrent results in the literature, according to which the regular intake of medications (even as far as no longer taking the medication entirely) most particularly within the context of a chronic condition, was occurring most frequently within the first year of being diagnosed. Therefore, researchers have opted for a research strategy that would allow them to get a condensed view of this new experience, more precisely within the first year following the diagnosis. In order to better understand this experience, they also chose to resort to a strategy of contrast between three pathologies – asthma, arterial hypertension, and menopause – and according with the individual's socio-economic status, this status being defined on the basis of education and individual or family income. This contrast should have provided an illuminating comparison perspective in better understanding the new experience of having to take

³ Collin, J., Laurier, C., Blais, L., Perreault, S., Lalonde, L. *L'observance comme concept à réinterpréter. Analyse multidisciplinaire des facteurs sociaux liés aux comportements des patients face à leur médication.* The study was funded by the Social Sciences and Humanities Research Council of Canada (SSHRC).

antihypertensive medication. A total sample of 39 individuals, 17 people newly diagnosed with hypertension (among them 11 women and six men) were questioned in an in-depth interview format for an average duration of 90 minutes. The participants were divided into two age groups – one for those between the ages of 44 and 55 (9) and the other, 56 to 60 (8) – and among these, 10 individuals were part of the lower socio-economic stratosphere while 7 in the upper. The duration of the antihypertensive medication intake varied from 6 months to 3 years.

The second study was conducted in the Montreal and Quebec areas during the period from 1998 to 2000⁴ (we actively participated in all the steps of its completion). This study was developed in light of the inability of the inventoried qualitative (and quantitative) studies to truly take into account the coherence related to the irregular taking of anti-hypertension medication. The study specifically looked at bringing this coherence to the surface through the exploration of the underlying expletive logic regarding the irregular intake of anti-hypertension medication according to the hypertensive patient's own point of view. Differencing it from the previous study, the researchers chose to develop a research strategy that would allow them to account for the largest number of possible manifestations of medication-related inobservance and this, up to its extreme expressions. The cohort was comprised of fifteen (15) women and twelve (12) men, aged between 40 to 70 years old originating from various socio-economic backgrounds. It covers different methods of irregular utilization of anti-hypertension medication, be it the omission or the reported omission, temporary halting (1 week, 1 month, a few months), the omission of successive doses (rarely or frequently) and the partial intake of medication, defined as partially taking the prescribed dosage or omitting to take one of the prescribed medications. The participants partook in an in-depth 60-minute interview, which was recorded and transcribed. The anti-hypertension medication usage duration varied from 1 to 37 years.

These studies are distinctive in their essence. This contrast is definitely interesting since it brings to the surface two levels of data that are particularly enlightening in relation with the goals of our rational. The first study allowed for a better understanding of the manner by which the condition progressively builds itself up in the newly-diagnosed individuals, their reactions, hesitations or worries towards their diagnosis and the idea that they must take medications to heal themselves. On the other hand, the second study demonstrates the recurrence of a layperson's way of thinking regarding doubt and risk. What arises from the study is that risk, in particular, is a central explicative dimension of persistent irregular medication intake.

The analyses contained herein synthesize the results ensued from both studies. We have tried to grasp the manner in which certain emerging dimensions from one study (and relevant to our discourse) were emulated in the other and vice versa. The material was questioned around the discourse's official and objectified key elements about risk and arterial hypertension. We have looked to examine to what extent the condition is inscribed in the eyes of participants through a process of anticipation and if the participants had the impression that they were acting in the long term in relation to the risk of cardiovascular disease. Were the participants also aware of their tensorial targets and were these targets part of their preoccupations? What were the elements of their discourse that could be linked to the savant discourse and what was the nature of the gaps between both discourses?

⁴ Proulx, M., Leduc, N., Vandelac, L., Grégoire, J-P, *Logiques d'inobservance aux médicaments antihypertenseurs*. The study was funded by the Canadian Institutes of Health Research (CIHR).

4.1. A diagnosis that must by necessity be integrated into one's experience

Several participants were stunned to learn that they had high-blood pressure. Not expecting this diagnosis, the disclosure of it would be for them an especially brutal shock, provoking an utterly different view of themselves which required time before integrating it well into their experience. During a fair amount of time, a young woman in her early forties rejected the idea that she was not *normal*. She tried to explain her symptoms by a state of fatigue, normal day-to-day stress, she believed herself to be young, fit and healthy, and was looking for satisfaction through her own reasoning. With time, as she would put it, she had to eventually face reality.

Some others admitted that they needed some time to recognize that they were indeed faced with a hypertension condition and with all that it entailed. Some others were even wondering if they were actually ill and in a way, felt trapped by this disclosure, feeling that their self-esteem and personal capabilities were affected. One woman who evolves in a greatly precarious context took the newly-diagnosed hypertension as something "personal", which added to her perception of an already unsatisfactory state of overall health, as if another fatality had been bestowed upon her, a feeling of unfairness. She had a lot of difficulty accepting this state and took it as a personal defeat, a sign of weakness and deficiency. Others interviewees felt discouraged at first or had the impression of something strange "*I felt as if I was someone else*". Others felt that their bodies were avenging themselves.

In one way or another, we could see that this new *ill* status took its true meaning in each and brought about a new way of looking at oneself. Obviously, it is one's relationship with one's own body that suffers the most. With the disclosure of the diagnosis, the body seems to represent a defect. Men, for example, will frequently compare it to the wear and tear on an automobile that, if not properly tuned, might run the risk of no longer being *driveable*. One respondent perceives himself as *an old car that needs an additive in order for the engine to run well. Aren't pills a little like that!* Another participant was not surprised of the HBP diagnosis, a state, he said, that is nothing more than an additional pathology and that he relates to his age. He understood that at 62 his system is starting to *let go* and that his health is gradually and daily deteriorating. In fact, the onset of hypertension is not surprising as the sixties loom, as if aging was in itself an explanation. The HBP diagnosis seems to be some sort of sign of the decline of the physical shape; some participants feel less able to do things, to move or again, have the feeling that they are now limited to certain activities. The diagnosis also implies a form of admission that the individuals are aging. Some would even say that it is for them a sign that they had crossed a threshold to a new step in life, old age. The diagnosis is even more bothersome since one still feels as young and healthy as before. Some interviewees even had the impression that old age has prematurely arrived with the disclosure.

4.2 What is most frightening is the unpredictable and fatal nature of the condition

Even if some people seem to already know something of the condition (HBP) when they are told of the diagnosis since they had heard about it or they had known people close to them who had it, while others did not seem to have any clear idea from the onset. It seems that it is following the attending physician's disclosure or through readings that these individuals started to think about their state of health or about the condition that affected them. Several elements in their discourse

were indeed establishing a link with the official discourses, most notably when the participants described HBP's internal mechanisms and its anticipated consequences. These participants represented HBP within themselves as a condition that makes the heart beat faster and the blood circulate faster within the body, that is, faster than normal. HBP is seen as a heart's difficulty to pump what it needs to pump. It is also perceived as a problem that is related to the fact that the blood is too thick and circulates difficultly, which in turn provokes an increase in arterial pressure and the onset of the condition.

Even though the participants were not referring to rough data on the risk, it appeared that several had come to believe that they are susceptible to a certain risk that they related to HBP. Therefore, risk expresses itself through fear, serious doubts, and uncertainty. Many relate the difficulties and actual experiences of some of their relatives, who are suffering from the condition, which has guided them towards the assessment of their own risk. These participants would witness the paralysis or death of their parents, brothers, uncles due to an uncontrolled HBP. In a different manner, other interviewees believe themselves to be particularly aware of their own risk by the mere fact that their arterial pressure is and steadily remains at high levels.

This being, the conceptualization of risk among most of the participants takes on an essentially abstract form, which is based upon readings or discussions with healthcare professionals or their entourage. The risk is associated with HBP's unpredictable consequences, the ability of pain to suddenly appear in the individual without any warning signs of its onset. Some would say that the condition is *silent* and unpredictable, elements that contribute in feeding the fear. Moreover, several had come to believe HBP was a warning sign of a heart problem, thinking that their own system did not function as it should and that something must be done about it. Others would see in it a warning sign that trouble is on the way, most notably cardiac problems that could eventually lead to death.

However, not everyone is scared, or afraid of HBP, some because they doubt their diagnosis, associating the problem to the white-coat phenomenon or because they distrust biomedicine, and medical information that seemed to be too much contradictory. Nevertheless, some people appear to have given up and the old certainties would no longer hold true upon the day when they suffered a stroke. Little by little, there seems to be a certain acceptance of the fact that the condition had found a niche within the individual. The individual seems to accept the inevitable about both the condition's severity and its irreversible nature. Those who had believed that their problem was temporary and could be fixed by changing their lifestyles, managing their stress, would eventually come to the conclusion that they must accept the fact that their condition was *here to stay*.

4.3. Isn't the medication dangerous?

Interestingly, the idea of risk again and forcefully reappears when the participants would express themselves about the medications. Wherein the idea of having to take medication was a shock, one realizes that a strong majority does not like the fact of having to take medication. Several do not like the idea of daily ingesting a chemical product and considered in the long term that there is a risk of causing serious harm to the organism. Some assert themselves as anti-medication since they fear the medication's toxic effects and state that they would rather go down, or lean towards

the path of a holistic treatment. Medication is conceptualised as a synthetic product in contrast with certain therapeutic alternatives, which appear to them as much more natural. There also is the idea that medication is a foreign substance which enters the body and whose negative effect can manifest itself much later in an individual's life. Medication is perceived as an external and additional element that can be harmful to the organism and whose impact is not very well known. The difficult and personal experiences as well as those lived by relatives would in the end be determining factors while the persistency of the side effects over time increases the worries among the others. Am I at risk of developing cancer or another serious illness later? Am I at risk of eventually suffering from other health issues that are related to this medication? Those are the questions that the participants have asked themselves and for which, at the time, they did not seem to have found the answers.

Once these initial recollections have passed, most have to face the fact that they would have to take this medication for life. As a consequence, the medication would then be perceived as a crutch, an obligation, as a form of slavery. Some participants see it as an additional element to their life that they would eventually be unable to live without and that someday, it might no longer have an effect. What will we do then? Will there be another product available to replace it? Will it be as efficient? Will the body's *tolerance* to the old product diminish the expected result from this new product?

4.4. The pivotal role of stress in a layperson's belief

For participants, the fear of medication is such that some would decrease the recommended dosage; quit taking the medication for months without any replacement while others would instead try to manage their stress. In the end, stress would become a recurrent theme in their discourses. If the interviewees recognized that aging, nutrition, excess weight, and family history could in part be responsible of the condition's aetiology, the representation of stress remains a strong idea within their discourses. Moreover, the participants provide several examples that let them believe that stress is directly involved in the development, the deterioration, or the onset of HBP. One interviewee who used to work in the field of construction asserted that his pressure has the tendency to double when confronted by a physician, or under other types of similar circumstances. For example, he remembered how his pressure started to climb during a normal follow-up at his CLSC. The mere fact of waiting, sometimes during an hour before the consult, would, according to him, have an irritating effect to such an extent that his pressure would start to increase. Another respondent is also able to notice a significant drop in her arterial pressure during her last sick leave. An employment consultant under constant stress, constant pressure at work, she believed that her pressure is *in-sync* with her stress. She believes that her problem would resolve itself upon retirement.

Many would talk about work-related events that they associate with the progressive onset of HBP. These events are never truly isolated from the restrictive context of life. Competition and increased productivity in the workplace, the important pressures exerted upon workers and middle persons, the workplace's social and at times conflicting environment, the noise and inherent work-related hazards, the problems between conciliating professional and personal responsibilities and periods of acute conflicts, losses and bereavement within the families themselves, constitute many of the stress factors that are brought forth by the participants, and which they link to HBP. Others,

most notably those individuals from the first study's underprivileged category, would rather believe that HBP is some sort of psychosomatic condition. Therefore, the main idea is that emotions have a direct impact upon one's brain and body. These interviewees are able to substantiate their beliefs through numerous examples or difficult emotional hardships that had occurred throughout their lives; for example, unemployment, violence, lack of job security, and inner and unresolved emotions. These would then transpire into their day-to-day lives as anguish or anxiety. *Hypertension is not necessarily physical*, one respondent would say only to hesitantly add that *well, it is physical, that is it has become physical after having locked so many emotions inside*. As time goes by, keeping all of one's emotional suffering inside can eventually transform itself into physical suffering, which can then lead to an increase in one's blood pressure. Others also believe in a psychosomatic perspective, which they would describe as a manifestation of the link between the body, the soul and principles; the stressed individual would erect an emotional barrier which is a reaction to desires that cannot be fulfilled.

5. Looking at a layperson's experience with HBP or when meaning is at risk

Based upon these two delivered tiers of data, what can we conclude about the effects of the official discourse about risk in a layperson's experience with HBP? Without knowing exactly what is being said in the midst of a clinical consultation and without being able to make any assumptions regarding the manner in which the information on risk is being transmitted to the participants, we can nevertheless foresee some of its effects. First of all, we can hardly exclude that there is a certain correspondence between both discourses. It can be perceived in how the condition's internal mechanism is understood by the participants, how they express the severity and consequences of an uncontrolled HBP, and how they surmise the possibilities of eventually suffering from a cardiovascular disease. Overall, several of the interviewees seem to stick to the path outlined by medicine, which is not surprising. In fact, we are forced to admit that the barriers between *expert* and *layperson* knowledge are not fixed, neither are they static, but are rather amalgamated, fluid, and ever-changing (McClellan and Shaw, 2005; Nettelton, 2006).

However, the correspondence seems to end there. Instead, what one sees is the individual's difficulty in accepting, understanding, and integrating this new experience with the condition, the disclosure of an HBP diagnosis seemingly transports them into a totally different universe where the unknown and unexpected references need to be constructed. In plain language, it seems that the diagnosis of HBP and its inherent preventive measures require that the individuals invest themselves into a quest for some sort of meaning, but without being able to truly, personally, and individually express their inner experience with the condition (Sachs, 1995). Therefore, we would propose that the encounter with HBP's official discourse, and in particular risk, has in a way the effect of exposing the individuals affected by risk to personal limitations in constructing their own reasoning or interpretation.

A person learns to live throughout life with a body's limitations – a body that speaks through feelings which in turn are decoded and given meaning through the relationships with one's surroundings. A person learns in time to trust what the body transmits. With the condition's arrival, he will be able to call upon modifications on a sensorial level, or its appearance which will help him to reach a conclusion regarding the severity of his state and whether or not to consider a

course of action or treatment (Nettleton, 2006; Kleinman, 1988). However, HBP pushes the individuals into a universe where the boundaries are imperceptible, where they are unable, for example, to detect an increase in their arterial blood pressure. The individuals with an HBP diagnosis are consequently unable to retroactively and directly act upon their state of health as the condition evolves, when the arterial pressure increases; and they are unable to perceive if they are truly ill and react accordingly. We would say that these individuals are definitely and sometimes abruptly thrust into an entirely new universe where the boundaries are extraordinarily and essentially drawn by medicine, and cannot relate the condition in synchronicity with their own life and experience.

This is in accordance with what we have observed, since several interviewees have expressed difficulties in accepting their diagnosis. Most have asked themselves what exactly did they have, and several seemed to have abdicated in the face of the *fait accompli*, even without ever having felt any of the condition's warning signs. After the initial shock, it appears that these participants had to form their own opinion about what exactly was wrong with them. Some would even say about the condition that it was sly and unpredictable and they would bear witness, forcefully and in details of the personal transformations in their identity and their relationship with their body. Indeed, it seemed that the diagnosis had on occasion left a feeling of strangeness, of the unknown, when they had considered themselves in perfect health. Some felt that their self-esteem was affected, lived the disclosure as if it were a personal failure, or as somewhat of an admission that the machine had aged. The body had suddenly become defective, inadequate, and old. Everything seemed to happen with the self, there where the internal mechanisms are deployed. The individual feels infected by the risk that lives within the body, within the self (Lupton, 1995), through the blood that does not circulate as it normally should or the heart that has difficulty pumping.

In addition, the individual is thrust into a world of ambiguity, where several realities co-exist. If it is clear that the clinical act requires that one immerses oneself into a process of mid to long term anticipated complications, a requirement that several seemed ready to comply with, it is clear in the meantime that this act also attests the topical presence of the condition. In other words, the individual considers himself healthy since he feels quite well, but also knows that he is ill, or on the way to becoming ill (Adelsward and Sachs, 1996; Scott et al., 2005).

Thrust into a world of doubt, the affected individual must finally choose between the lesser of two evils, the condition or the medication. We have observed that the interviewees have questioned themselves about the risks that they associated with taking medications. Some had stated that they were anti-medication, fearing the negative long-term side effects of taking medications and thus, their toxicity (Aballea, 1987; Britten, 1994; Morgan & Watkins, 1988). Others had stated a corpus of difficult medicinal experiences, be they personal or among relatives, aspects that apparently seemed to accentuate the worries and the distrust related to taking medication (Hunt and Emslie, 2001). It is obvious that the medication seems to represent overall a potential of risk in the mind of these individuals (van der Geest & Whyte, 2003). Does the prescribed medication present a long-term risk? Is it worth it for me to take this medication for my own health?

Overall, the only thing that seems to link the individuals with their own experience is this idea of stress, of a series of events that have accompanied the condition's onset or the increase in arterial pressure. Of that fact, the individual is sure of since he lives and feels daily, and has many

personal examples that allow him to think that his state can in fact and to some measure be explained by the gnawing stress and the inner-locked emotions, a concept that anthropologists and sociologists have brought to light (Blumhagen, 1980; Heurtin-Roberts and Reisen, 1990; Morgan and Watkins, 1988). However, it seems that medicine does not truly accept the individuals in that respect since it tends to define the individual as something purely mechanical and segregated from the body, reducing the condition – HBP in particular – to a metabolic, physiological, and biochemical disorder, outside of the social or environmental context. Face with this monopoly of truth about the body (Le Breton, 1992), it is easy to understand that an individual may want to look at other means of taking care of himself, which recognize this idea that the individual has about his condition. Indeed, we can hardly exclude the fact that alternative medicines, for example, base themselves upon representations of the body that correspond much better with a layperson's perspective, recognizing this link between the body and the soul – a link often brought forth by the participants (Astin, 1998). In opposition, it seems that medical science is still far from truly recognizing and including the dimension of stress within the clinical framework – with as much persistence as per example in the case of eating habits (Girerd, X; Mann, 2000). In the end, the individual must accept that what he is going through or feeling is essentially contained in the drug itself.

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