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Teaching of surgery and responsibility to future generations

Enseñanza de la cirugía y responsabilidad hacia las generaciones futuras

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ABSTRACT

In this paper, the responsibility to future generations of surgeons is discussed. Excuses and justifications are analyzed as alternatives to avoid responsibility, as is the recognition of responsibility according to ethics and the law. The ambiguity of the Official Mexican Standard (in Spanish Norma Oficial Mexicana, NOM) for the organization and functioning of medical residencies and its lack of binding to the enforcement of educative obligations are also discussed. Then, the question of whether we have contractual or utilitarian obligations towards future individuals or, rather, an obligation of retribution is analyzed. A mental experiment is posed, of being operated upon by our worst pupil, and some questions entailed by the consequences of this fact are made. It is concluded that the practice of surgery and its teaching are public goods and that bad quality of teaching is a neglect of due care.

RESUMEN

En este artículo se habla sobre la responsabilidad que tenemos con las generaciones futuras de cirujanos. Se analizan justificaciones y excusas como alternativas para evitar la responsabilidad, y el reconocimiento de la responsabilidad de acuerdo con la ética y la ley. Asimismo, se habla sobre la ambigüedad de la Norma Oficial Mexicana (NOM) para la organización y funcionamiento de residencias médicas y su escasa vinculación con el cumplimiento de las obligaciones educativas. A continuación se analiza si tenemos obligaciones contractuales o utilitarias con individuos de futuras generaciones, u obligación de retribución. Se plantea el experimento mental de ser operado por nuestro peor alumno y algunas preguntas sobre las consecuencias de ese hecho. Se considera la práctica de la cirugía y su enseñanza como bienes públicos. El artículo concluye que proveer una mala enseñanza es una negligencia del debido cuidado.

INTRODUCTION

The irresponsibility of education policies in Mexico is a very concrete and serious problem. Another problem, that of future generations, whether they exist or not, and whether or not we have responsibilities towards them also involves serious moral difficulties that may seem abstract. Bringing these two problems together and reflecting on them brings us face to face with the responsibility of teaching surgery to future generations of surgeons in this country and the fact that no practicing surgeon can escape from it.

Educating is not only training them in different technical crafts, but in the way of conceiving and practicing the art of surgery in the face of challenges arising from technological excess, an overload of work, permanent lack of time, and the shortage of labor force residents represent, who are required, asymmetrically, more performance than the mentorship offered to them, often without acknowledging that the latter has been the ancestral obligation of the surgeon.

To ignore both problems is to live like the cicada, in the punctuality of the present. After all, those of us who are surgeons have already passed through all that, survived smallpox, and made a reputation for ourselves in old age. It is also pleasant for some, in academic forums, to tell a lot of anecdotes from heroic times,

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such as *The Old* Surgeon *and the Sea*.[1] To live from the tale.

Beyond a strong entrance let's address the issue directly. Is responsibility diluted the more distant the future and the other? Some deny this, arguing that the future is non-existent; others more elaborate argue that the future is nothing more than a mental construction. But it is undeniable that personal and collective actions do have consequences, they are part of processes that change states of affairs. How else could we make inferences without thinking of the possibilities and counterfactuals that derive from a current state of affairs? If our present actions, as processes, change states of affairs, they will also change future states of affairs. It is trivial to say that future events are not concrete but undefined. However, this is not a sufficient reason not attempt a reflection. I will then deal, in a first part, about whether we have responsibilities towards the following generations of surgeons; then some alternatives used to avoid responsibility; next, if what we have toward future surgeons is a social contract or a downward obligation; finally, a thought experiment and some reflections.

DO WE HAVE RESPONSIBILITIES TOWARD FUTURE GENERATIONS?

According to the so-called *Master Argument* of George Berkeley, the trees at the park, if not heard falling, either do not exist or their fall did not happen.[2,3] Berkeley argued that objects independent of the mind do not exist because it is impossible to conceive them. According to him, what exists must cause a sensory experience.

Following this idea, we can pretend that future surgical problems in Mexican hospitals, due to poor quality of teaching do not exist (yet). We can pretend that if our praxis is good, everything else is going well. This supposes the illusion that if our professional practice is kept regular and in harmony, if our private practice is decent, our public practice is also decent. It also supposes the illusion that, if we talk about all that in forums and write articles like this, in addition to earning "academic snacks" (curricular points, in colloquial Spanish *tortibonuses*, bonuses to acquire some extra *tortillas*), the problems will solve themselves. As you can see, I not only unsheathed my sword, but it is a double-pointed one, like the amphisbaena of vulnerability,[4] and it also points to my epigastrium.

I return to the problem. That future individuals are not concrete does not mean that they cannot exist, it only means that they are indeterminate, which, as I will discuss below, does not exempt us from responsibilities towards them and towards the system.

Derek Parfit says something very obvious; that unless some disaster destroys the human race, people will live later who do not exist now. Those are the future people, who will also have interests like us. But what at first glance doesn't seem so obvious anymore, is that some of our actions will go against the interests of those future people, and since those people will exist no matter what we do, it is also possible that we directly benefit or harm them. For example, if I leave a piece of glass in the undergrowth of a forest, and at some point later a child is cut with it, my act will have damaged them, and there is no moral difference in that act if they exist now or not.[5] The same is true of nuclear waste at the bottom of the sea, anti-personnel mines buried during war conflicts, Agent Orange spread in Vietnam, and shots fired to the air on a national holiday.

In this sense, distance in time is not different from a distance in space; although we cannot identify these people, we are guilty of negligence. However, it seems that the best way to avoid responsibility is absence, when the other, distant in time and place, is not present to retaliate our actions. Some apparently trivial questions still need to be asked. Is medical ethics practiced only when there is a mutual benefit? Is it exercised only to avoid reciprocal physical or legal harm? Does it exempt us when we do not know (cannot identify) the people whom we will benefit or harm? The answer to the three questions is no.

ALTERNATIVES TO AVOID RESPONSIBILITY

To distance oneself from the fool, there always are alternatives, they are frequent and ubiquitous. The first is justification (from Latin

justus facere), to make just something which is not. By justification *damage* is denied, although the responsibility for the action or inaction is accepted; if in the end there is no harm, so the argument goes, then the responsibility is mitigated. "Well, yes, but it did not lead to serious consequences, there was no permanent damage, the body heals itself, the body is wise..." It is These arguments are often complemented by thanking the intervention of some divinity. The second alternative, the excuse, is a correlate of justification, its inseparable companion. The term comes from Latin *ex causa*, and through it, the *damage is accepted*, but intentionality is denied; therefore, if the damage was not intended we are not responsible. To prove this, we then give endless explanations. "Well, yes, but it was unintentional, it was an accident, we all make mistakes, we all are human..." And again a divinity is invoked who perfectly explains and almost justifies, by opposition, our mistakes. Incidentally, explaining also comes from Latin, *ex plicare*, to unfold; thus we unfold, iron, and smooth our arguments to make them fair, to stand at bay from causes and avoid responsibility.

Justifications and excuses are often confused; both serve to avoid guilt but do not exempt from responsibility. John Austin, in a famous article, *A Plea for Excuses*, tells us that "the average excuse, in a poor situation, gets us only out of the fire into the frying pan- but still, of course, any frying pan in a fire."[6] According to Austin, there are two obstacles to the clarification of excuses. The first is the careless use of language, which, if allowed, deceives. Saying "by mistake" is not the same as saying "by accident." The second obstacle is pretending and accepting that an excuse is the last word. Austin's position, contrary to common tactic, is that ordinary language is *not* the last, but the *first* word that can always be improved upon and superseded.[7] (*italics* are Austin's) It is always possible to evaluate justifications, excuses, and explanations, ours or someone else's.

RESPONSIBILITY, BETWEEN ETHICS AND THE LAW

Although promising does not impoverish, promises and oaths do create obligations. However, time dilutes everything, promises and oaths are used to avoid responsibility and get out of trouble; to make-believe, while time dilutes them. Time also creates routine, and the novelty of an oath and its impetus dissolve in the daily nuisances of the doctor-patient relationship; thus, the most frequent diseases and the monotony of paperwork take precedence over the novelty of promises, and responsibility vanishes.

One of Herbert Hart's concerns is precisely how to explain responsibility when it is not legal, how to recognize it without the permanent coercion of an external authority.[8] This is one of the endless disagreements between ethics and the law, when it is argued that what is not normative is not binding, and what is not binding is not punishable.

This leads us to a very tangible scenario in our country; how to explain the responsibility of education, if the obligation of teaching surgery, except for those who have a university appointment, is not entirely legal? For surgeons who without an academic appointment have contact with residents, education is not an obligation. It seems more like an act of good faith when time permits.

Proof of this are the Official Mexican Standard (In Spanish *Norma Oficial Mexicana*, hereon NOM) NOM-001-SSA3-2012, *Educación en salud. Para la organización y funcionamiento de residencias médicas* (Health education. For the organization and operation of medical residencies), and the PROJECT of the Official Mexican Standard PROY-NOM-001-SSA3-2018, *Educación en salud, para la organización y funcionamiento de residencias médicas en establecimientos para la atención médica* (Health education, for the organization and operation of medical residencies in establishments for medical care). The 2012 NOM says in numeral 9.5 that "for the optimal development of the medical residence, the appointed professor must have the collaboration of associate professors, *ancillaries, external guests, assistants or others* [*sic*] according to the existing nomenclature in the resident receiving medical unit" (*italics* are mine) but does not stipulate what the obligations of such teachers are. In addition, the ancillaries, external guests, assistants or

others lack, for different reasons, a university appointment. They are only workers, of variable quality and teaching experience, attached (or not) to a service.

The 2018 NOM Project stipulates in section 9.4 that "the Appointed Professor *may* (no longer *must*) have the collaboration of associate professors, ancillaries, external guests, assistants or other persons *who can support him* [*sic*] for this purpose" (*italics* are mine), but it does not stipulate what the obligations of these collaborators are nor what support they can give them. The "spirit" of the NOM goes from being normative to desiderative, it no longer speaks of obligations but of desires. The set of "adjuncts, ancillaries, external guests, assistants, or others" no longer forms a faculty but a casual collection of Samaritans who could support the appointed professor.

In both the NOM and the NOM Project, residents have the right (numeral 10.3) to "receive postgraduate education [...] *under the direction, mentorship, and supervision* of the professor, the head of a department *and the attending physicians*..." and (number 10.5) to "*permanently have the advice of the doctors assigned* to the service, during the development of daily activities and on-call shifts". (*Italics* are mine.)

Along the same lines, the descriptions of the functions, mission, vision, principles, purposes, values and strengths of the Interinstitutional Commission for the Training of Human Resources for Health (*Comisión Interinstitucional para la Formación de Recursos Humanos para la Salud, CIFRHS*), the body on which the NOMs I mention depend, are of such an abstruse rhetoric that I prefer to leave the challenge of understanding them in this link http://www.cifrhs.salud.gob.mx/site1/cifrhs/acerca_dela_cifrhs.html (Consultation of 03/04/2019). Nothing will do them better justice.

Secretaries, general coordination directorates, national institutes, general and regional hospitals, various universities and hospitals, the National Normative Committee of Councils for Medical Specialties, and the National Association of Private Hospitals, all took part in the preparation of the NOM Project of 2018. It is an example of the problems of multi-authorship in the drafting of norms, codes, laws, and regulations in this country, of the interpretation of its ambiguities, of the problems to standardize criteria, so that the NOM in question works; in this case, to standardize graduate medical education.

Another issue is that those involved adhere to the NOM. Some attending physician may simply argue that *they cannot support*; because time is insufficient, they have an excess of patients in consultation, many scheduled surgeries, seriously ill patients in the ward, or because they cannot stay longer (because they are not paid) to teach, etc. Thus, the unmentored resident becomes a hospital domestic employee (which sometimes accommodates them), self-taught, but also heir to the occurrences or, elegantly, the serendipities of their teachers.

In sympathy with Hart's concern, could a surgeon acknowledge their responsibility to teach without outside authority? How to explain the responsibility of education if the obligation is not legal or, in terms of these NOMs, not entirely? In Mexico, does social pressure make moral agents respect the rules? If so, could this social pressure improve the quality of surgical teaching? Sometimes even satiety is useless; it is diluted after a bit of exposure in the media, when collective attention goes from iatrogenesis to the obstinacy of some actress, to the sayings of a hieratic politician. In an ignorant society, the critical standard is low, in a shameless society the moral standard is low. In such a society, the *dictum* "do you solemnly swear to fulfill and enforce [so and so and so…]? If so, may society reward you […]" is a poem. Only the personal reflection and commitment of some surgical mentors remain.

CONTRACTUALISM OR DOWNWARD RETRIBUTION?

There is certainly a contractual relationship, poorly defined and poorly understood, between institutional surgeons and residents, but let us leave the present problems of medical education for a moment and go further. What about those who have no contractual power, who have done nothing for us, and have nothing to offer? This is a concern of Giuliano Pontara in his book *Etica e generazioni future*

(Ethics and future generations)[9] that I want to bring to the surgical environment. If, with future patients, we have no contractual or utilitarian obligation, then why waste our time? Well, in order not to evade our responsibility, long sworn and little remembered, we can make four considerations.

The first one is not to see different generations as if they were successive, a dotted line, as if all surgeons of a given generation died at the same time and new ones germinated from spores. Generations coexist, like the intertwined fibers of a rope, the disruption of which weakens it. Similarly, the teaching of surgery, according to the cohesion between surgical mentors and their students, is strengthened or weakened. Surely some future surgeons are not even residents yet, but our students will be surgeons in no time.

The second consideration is downward retribution; by which we pay those who follow us for the training we received from our teachers. And here it is good to remember a quote from John of Salisbury, worn by use and wrongly attributed to Isaac Newton; "Bernard of Chartres used to say that we are like dwarfs on the shoulders of giants. We can see farther and farther, not because of some physical distinction of ours, but because we are raised on their great height."[10]

The third consideration is our double obligation to do no harm and to do good. On the one hand, to make residents and students waste their time leaving them standing, being late, "lecturing" a class we did not prepare and whose subject we did not indicate previously, is to harm them, it is a negligence of due care.

A fourth consideration is not to underestimate future problems because we believe they are irrelevant. Presentist visions have very serious consequences. Examples in Mexico are the nonexistent reproductive health policies and access to birth control, and the so deficient health-care programs for the elderly. Along these same lines are the current state of surgical education and medical specialty programs carried out inconsistently. It is one thing for programs to be written, another for them to be instrumented and monitored. Let us not be like the naive legislator who claims that the mere publication of a law will end crime, without further ado. There are the textbooks and the codes. In this regard, I quote below a satire of Juvenal (*Decimus Iunius Iuvenalis*).

Before finishing this section, some open questions. If distance in time is related to predictability, then the more distant the events, the less predictable they will be. If so, will what seems safe today continue to be safe? Are risk analyzes reliable? Are risk and perception of risk the same thing? Is the concern of the effects of our behavior in the distant future ethically less justifiable than the concern in the immediate future? And again to the central question of this essay, is responsibility diluted the more distant the future and the other?

A MENTAL EXPERIMENT

The term 'learning curve' is often used to refer to and accept the normality of errors. However, the expression has two problems; the first is that the curve was not originally created to document mistakes made, but the increases in productivity, as a better way of doing things, as know-how. The second problem is that on the contrary, as a euphemism accepted daily, a wrong concept of 'learning curve' is used as justification of errors and adverse events.

Now to the thought experiment. "In the future, I will be operated upon by my worst student. They will cause me a iatrogenesis." With this state of affairs in mind, let us ask a few questions again. Will I accept that I am part of their "learning curve"? If errors are normal, will I accept theirs as such? Will that *now colleague*, be like a brother? Will I accept *their* human error on *my* body? Will the answers that I can provide now rationally as I read, be emotionally the same with my abdomen open and my high-output fistulas, while I watch a monitor over my head and a mechanical ventilator to my left? ... With an endotracheal cannula? If the answer to those questions is no, then why do we expect non-medical patients to accept our ambiguous explanations of the iatrogenesis of a poorly trained surgeon? Because justifications and excuses allow us to avoid responsibility.

SOME FINAL THOUGHTS

If it is possible to cause harm through negligence, to future patients who will not be under our

care, then regarding the education of those surgeons in whose care they will be, we do have responsibility. If we acknowledge that responsibility, then it is pertinent to make a distinction between abstention and omission.

It is possible to refrain from accepting a teaching position, and then no harm may be imputed for negligence, either present or future. But the position accepted —and after the promise to "fulfill and enforce", with all the pride, pomp, and circumstance of a jealous academic— omission implies the will not to act.

Omission can be justified by arguing that the environment forces those who "do not integrate" to a mediocre performance in order not to "make waves". The resulting coercive working environment is a facilitator of the comfort zone, the psychological state of well-being in which people preoccupy about rewards before occupying themselves with their responsibilities [11] Why then join the low standard of a mediocre system? If it seems as Heraclitus said, that "an ass would prefer hay over gold."[12,13] Then "academic snacks" (the curricular points; remember the *tortibonuses* to buy extra *tortillas*?) will be preferred over personal excellence. The appointments, the tributes and the shining will take over the responsibility to teach well. But the consequences of omissions are indeed attributable, as is responsibility. Responsibility is the only way the exhortation "fulfill and enforce…" of which the bottom line is "if not, may society demand it to you" does not become the end of that poem.

In the ambiguity of the NOMs and other legal systems, when teaching and mentorship depend on that casual collection of Samaritans that *can* or *may support*, when what is not normative does not oblige, and since it does not oblige it is not punishable, we can ask with Juvenal, "who guards the custodians themselves?" He later adds *"crime commune tacetur"*, the common crime is silenced.[14]

So let us change the perspective. Responsibility is not a problem of external demand. It is what moral agents demand of themselves. If we accept Pontara's position of being "trustees" of a public patrimony,[15] and if we assume the practice of medicine as a public patrimony, then we will have to recognize the responsibility for the quality of the education we teach —and be accountable.

And if that personal demand is not possible, then let us not make fools of ourselves by living from tales, from heroic anecdotes, by offering justifications and excuses. If we are to omit the responsibility that comes with office, then let us refrain from accepting a position which provides us with "academic snacks", and with a public image of the naked emperor's new clothes. If the teaching of surgery does not interest us, it will be best to understand the obligation not to do wrong, the *primum non nocere*, as the abstention from teaching, a *primum non docere*.

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