Armauer Hansen and Human Leprosy Transmission

Medical Ethics and Legal Rights

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The centenary of the discovery of the leprosy bacillus is an appropriate occasion on which to revive the memory of a criminal prosecution which is quite exceptional, at any rate in Norwegian legal annals. The special interest of the case lies partly in its close concern with the personal and professional integrity of an eminent physician and scientist, and partly in its probing of the question as to what extent the physician may be restricted by law as regards his freedom to deal with his patients as he thinks best—a question that even today is of topical interest.

THE CASE

Armauer Hansen was installed as a doctor at the Leprosy Hospital in Bergen in 1868, and in 1875 he also became Chief Medical Officer for leprosy in Norway.

As a result of his studies of the dissemination of leprosy, he had arrived at a personal conviction that the disease was infectious but he had not yet obtained any evidence for this that would satisfy the requirements of scientific proof. As late as 1885 (1) he formulated the problem in the following way. If one is to arrive at a sound conclusion that a disease owes its origin to a bacillus, three requirements must be fulfilled. First, the bacillus in question must be present in every case of the disease; second, one must be al le to cultivate the bacillus outside the human organism; third, the bacillus thus grown must be capable of inducing the disease on inoculation into a human being or an animal. In this case it was the third condition that had not been fulfilled which concerned Hansen, since all the animals (dogs, cats, rabbits, monkeys, and fish) on which inoculation had been attempted appeared to be immune to the disease.

He had himself earlier tried, in vain, inoculation in rabbits, and it must be assumed that he was aware of the attempts at inoculating human patients that had previously been carried out in Norway. Thereafter, he had let his efforts rest until Dr. Koch's description of the tubercle bacillus came to his notice, apprising him of the conditions laid down by Koch for the scientific recognition of a bacillus as the cause of a disease. This treatise inspired Armauer Hansen to undertake fresh studies and must be regarded as the immediate incentive to his action of 3 November 1879 at the Leprosy Hospital in Bergen, when he inoculated material taken from a leprous nodule into the eye of a female patient who probably suffered from borderline leprosy according to the modern classification.

It seems that even before this episode the relationship between Armauer Hansen and many of the leprosy patients in the hospital was not a particularly happy one; primarily, perhaps, because of his constantly repeated insistence on the need for isolation, forcibly imposed if necessary, as a measure to prevent the spreading of the disease. His openly expressed opinion that "one was oneself to blame" for becoming infected with leprosy can scarcely have contributed to the improvement of the relationship (2). At any rate a considerable commotion arose in the leprosy hospital after the event in question, and the pastor there reported the incident to the supervisory board. The board interrogated the girl and Armauer Hansen and referred the matter to the Ministry of Justice.

As a result of the inquiry, subsequently instituted by the Ministry, the following facts came to light.

"The girl," who was 33 years old and who had been at the hospital since she was 16, stated that during a visit by Armauer Hansen she was requested by him to accompany him to his office since he wished to speak to her. She did not know what it was

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all about, but nevertheless became so anxious that she burst into tears at the entrance to the office. He then bade her come up to the table and lifted up a sharp instrument towards her eye. She raised her arm to protect herself, but was calmed down by the superintendent of the hospital, who was present in the office. She then sat down in a chair, whereupon she was twice pricked in the eye. She thought the pricks were very painful, and she suffered pain as a result for several weeks afterwards. She was also of the opinion that her sight had weakened.

Armauer Hansen admitted that he had twice pierced her eye with a sharp needle which he had previously passed through a nodule of a leprous patient. He also admitted that he had not first explained to her what he wished to do. Inside the office he had only told her that he would give her a prick in the eye, but "the purpose of this treatment he did not disclose to her." He added that the only thing with which he thought he could reproach himself was that he had not told her beforehand what he wished to do, but offered as a justification for this that he could not "presuppose that the patient would regard the experiment from the same point of view as I myself did."

This perforation was intended to lead to the formation of a leprous nodule in her eye. He would then have excised the nodule in order to prevent her suffering any injury to her sight. On a couple of previous occasions he had, with complete success, removed incipient leprous nodules from eyes and he was of the opinion that he certainly could do so again on the present occasion. Nor did he think that the formation of a nodule in the eye would have led to a general outbreak of nodules, since he could have prevented a general infection by removing the nodule in time. He added that patients with the anesthetic form of leprosy had been known to develop nodules, and since they were thus exposed to an inherent possibility of developing nodules, he was of the opinion that it was less questionable to undertake the experiment.

As regards the consequences of the perforation, it was quite clear that no nodule formation had occurred, but instead a minor inflammation occurred which had healed spontaneously in the course of several weeks and had not caused any permanent harm. To what extent the perforation or the subsequent inflammation had caused the patient pain was not quite clear, but, according to the information available, it appeared that she had exaggerated considerably in this respect.

When the Chief Magistrate in Bergen transmitted the record of the inquiry to the Ministry, he commented that Armauer Hansen, without the patient's consent and against her wishes, had undertaken an operation which apparently had not caused and possibly could not cause lasting damage to her eye, but had nevertheless occasioned her much anxiety and not inconsiderable pain. Armauer Hansen was well aware of this, and it was moreover his intention to inflict on the patient "a more malignant form" of the leprous disease than the one she already suffered. The Chief Magistrate therefore proposed a charge against Armauer Hansen of occasioning actual bodily harm to an innocent party.

Before the Ministry came to any conclusion, expressions of opinion were sought from the City Medical Officer, Bidenkap, and from the Director of Public Health.

Bidenkap, who was a university lecturer in medicine, expressed the opinion that the Chief Magistrate had misunderstood the case in-so-far as he was of the opinion that Armauer Hansen had intended to inflict on the patient a more serious form of the disease than she already had. The information regarding the patient's disease justified the conclusion that the sensitivity in the eye's connective tissue was lessened, but not completely lost.

The Director of Public Health adopted Bidenkap's opinion and found that for administrative purposes no further action was called for than "to proceed to administer a severe reprimand to Hansen, who undertook the experiment in order to discover the answer to a question of the greatest importance in the interests not only of science and the nation, but also of the leprosy patient's own environment, and who, in my opinion, has already performed

vital services in seeking the answer to this question."

The Ministry of Justice decided to draft proposals for two royal decrees relating to the case. In one of the two drafts the Ministry declared its agreement with the Chief Magistrate that Armauer Hansen's conduct was of such a character that it was imperative to bring a charge against him. The Ministry expressly stated that there was a case for conviction under the provisions of chapters 24 and 27 of the current Criminal Code. It was there provided that if a senior government official misused his position against his better judgment so as to injure anyone, the penalty was loss of his office.

In the second draft, the Ministry advocated the abolition of the existing joint tenure of the appointment as Chief Medical Officer for leprosy and the appointment as a doctor at the Leprosy Hospital in Bergen. This apparently purely administrative reorganization was justified by the argument that, in the Ministry's opinion, Armauer Hansen had not misconducted himself in his capacity as Chief Medical Officer for leprosy, but only in his capacity as a doctor at the Leprosy Hospital. The Director of Public Health had indeed expressed an opinion that Armauer Hansen had incurred considerable ill-will among the majority of the leprosy patients. However, he was of the opinion that it would raise an obstacle to the solution of an important problem if Armauer Hansen were removed from his position as Chief Medical Officer for leprosy, and that the state of opinion among the leprosy patients ought not under any circumstances to be allowed to exert any influence in this respect. Therefore, the Director of Public Health had proposed that the connection between the two posts should be terminated and the Ministry adopted this proposal. The Ministry referred to the fact that the Chief Magistrate, in the light of the available information, had assumed that what had happened had to a great degree aggravated the ill-feeling among the patients in the hospital, so that Armauer Hansen "will in future scarcely enjoy such a degree of confidence as would enable him to carry out his duties as a doctor at the Leprosy Hospital successfully."

The Government by royal decrees issued on 17 April 1880 adopted both the proposals put forward by the Ministry.

The criminal prosecution against Armauer Hansen was brought into the city court in Bergen and, according to newspaper reports, lasted only four hours. The judgment of the court delivered on 31 May 1880 is reported in full in Professor Vogelsang's book ([3]) and I shall confine myself to recapitulating the main points.

In accordance with Armauer Hansen's own admissions, the court found it proven that he had acted in the manner set out in the charge, namely that he had pierced the eye of the girl, Kari Nielsdatter Spidsöen, an inmate of the hospital, with a sharp needle which had a short time previously been passed through a nodule of a patient suffering from lepromatous leprosy. Still in conformity with Armauer Hansen's statement, the court found it established that he had without just cause done her an injury, and that he had not beforehand obtained her consent to the perforation or informed her of its purpose. The pain that he had caused the patient was not inconsiderable, even if her imagination had led her to give a more vivid account of it than corresponded to sober fact. Since the patient had not firmly opposed the operation, but had, on the contrary, remained passive after a soothing address and had only requested that her other eye should not be touched, the court found that the more stringent provisions of chapter 15 section 11 ([4]) of the Criminal Justice Act were inapplicable to the case, so that only section 10 ([5]) was applicable, all the more so since there was no question of any *animus injuriandi* on the part of the accused. But the court found that, "The accused, however much the foregoing submissions may be urged in defense of his conduct from a medical and scientific point of view, by reason of the course of action he followed, the facts of which he has quite openly admitted, has with clear intent taken advantage of his position in relation to the first witness so as to cause her bodily injury, which, as he himself admits, he could not assume that she would

have consented to undergo, if he had beforehand acquainted her with its nature."

Armauer Hansen was consequently liable to punishment under the provisions of chapter 24, section 27, subsection (1) ([6]) cf. section 32 ([7]) of the Criminal Code.

As to the sentence to be imposed, the court stated that in view of the nature of the accused's conduct and in view of the evidence given of the feelings aroused among the patients by what had happened, there could be no question of the infliction of any other penalty than loss of the office in which he, after the events in question, could scarcely function as successfully as before. But since the accused's conduct was not such that he had thereby rendered himself unfit for the post of Chief Medical Officer for leprosy, and since this office was now distinct from the appointment as a doctor at the Leprosy Hospital, there was no reason to extend the forfeiture of office to any other than the last-mentioned post, which was the one in which he had misdemeaned himself.

The sentence passed, which tallied with what the prosecutor advocated, amounted to forfeiture of the post of doctor at the Leprosy Hospital in conjunction with a liability to pay 90 kroner, the costs of the case.

According to the information available to me, there is every reason to believe that the judgment was not appealed to a higher court.

In an endorsement dated 22 June 1880, the Ministry requested that Armauer Hansen be informed that "the Ministry also in the public interest acquiesces in the judgment."

Vogelsang writes in his book ([8]) that the judgment aroused great interest in scientific circles and in part was strongly criticized. It is, I suppose, probable that this was indeed the case, but a search of the press files has not brought to light anything but strictly objective reports of the case, and I cannot find it discussed in medical journals of that period either. A reasonable explanation is, perhaps, that both the daily papers and the scientific periodicals of those days were considerably more reticent as regards critical discussion of lawsuits than they are today.

LEGAL ANALYSIS

A sober evaluation of Armauer Hansen's conduct and of the criminal prosecution brought against him must start with a proper appreciation of the conditions prevalent at that time.

It must have been a dominant feature of the contemporary scene that leprosy was regarded as a catastrophe, both for those afflicted with it and for society as a whole. The services rendered by Armauer Hansen in the fight against leprosy cannot be called in question, and it is no less certain that what he did to the girl, Kari Nielsdatter, in November 1879, appeared to him to be a desirable and practically necessary step in his task of proving that the disease was infectious. On the other hand, there is every reason to believe that a more or less enforced isolation in the lazarets must have weighed as an extra burden on the leprosy patients themselves. Especially so, because the general conditions in such institutions can surely be assumed to have been lacking in humane amenities when measured by yardsticks such as we would apply today. It has been made sufficiently clear that Armauer Hansen, even before the episode of 1879, had incurred a considerable amount of ill-feeling among many of the leprosy patients, and it seems reasonable to assume that they had come to regard him as the personification of the grievous fate that life and society had inflicted on them. Against such a background, what he did must have appeared as a very high-handed act both to Kari herself and to many of her fellow sufferers.

In his statement of defense, Armauer Hansen mentions that similar inoculation had earlier been practiced on leprosy patients without complaint. Vogelsang states ([9]) that as early as 1844, Danielssen had inoculated material from a leprous nodule into himself, as well as into two hospital orderlies and a nurse, with a negative result in every case. He undertook similar experiments on subsequent occasions, and in 1857 he carried out inoculation on a number of patients with syphilis and scabies. If this latter experiment was carried out without the patients' permission, the case would seem to be on all fours with that of Ar-

mauer Hansen. The reason why there was no reaction in these instances is open to speculation. To me it appears a not too remote possibility that at that period there was no one who was prepared to champion the patients' cause. Their social position must indeed have been so weak that they would in fact have found it difficult to lodge a justified complaint. It reflects great credit on Grönvold, the pastor at the Leprosy Hospital, that in 1879 he took it upon himself to put forward Kari Nielsdatter's complaints. But on the whole it seems that Armauer Hansen was not far from the truth when he stated that what he had done was not anything exceptional or disturbingly novel.

Nevertheless, one is faced with the fact that even though his medical colleagues greatly exerted themselves in an effort to find extenuating circumstances for his conduct, there is nothing in the records of the case to support the view that any of them regarded his conduct as correct. Accordingly, I am prepared to assume that his conduct would have been acceptable in the light of the medical ethics of that period if he had first obtained the patient's consent, but that he overstepped the limit by carrying out the operation without consent, without giving the patient the necessary information, and, moreover, in spite of a certain amount of resistance on her part.

From a legal point of view, the case can scarcely have aroused much doubt as far as the question of guilt was concerned. The action taken plainly included a bodily injury to the patient, and Hansen had taken advantage of his position as a doctor at the Leprosy Hospital to trespass on one of the patients who was placed under his care. Neither the prosecuting authority nor the court can have entertained any doubt that his essentially laudable motives for inflicting such treatment could not exculpate him.

On the other hand, the question of the way in which the case ought to be dealt with must have aroused considerable doubts. To overlook the complaint, or to dismiss it quietly even if this had appeared defensible from other points of view, was practically impossible once pastor Grönvold had taken up the case and it had aroused the commotion that it did. To go to the other extreme, namely, complete forfeiture of both Hansen's appointments, with possibly the infliction of some additional penalty, must have appeared to be an unreasonably severe reaction, and a reaction that would not only have struck Armauer Hansen a harder blow than he deserved, but could also have led to the consequence that the country's leading scientist in this field would have been barred from its further participation, and the struggle against leprosy would have suffered a lasting setback.

Accordingly, the government chose to follow the proposal of the Director of Public Health, namely, to sever the two appointments. This would enable the court to disqualify Hansen from only one of them, and to allow him to retain the office of Chief Medical Officer for leprosy. From a purely legal point of view one can, I think, regard such a procedure with some scepticism. Strictly speaking, Hansen's misdemeanor was committed both in his capacity as a doctor at the Leprosy Hospital and in his capacity as Chief Medical Officer for leprosy. But the government's decision nevertheless appears to me to have been a wise move, and the court can scarcely have found much difficulty in adopting the proposal for punishment that the government had, so to speak, thereby presented and that the prosecutor had advocated.

Consequently, the outcome was, as Vogelsang writes, a legal decision that made it plain "that even a celebrated scientist is bound to obey the law of the land, and that it is the court's duty to protect every citizen also against encroachments from more influential persons" ([10]).

The case had scarcely any consequences as regards Armauer Hansen's scientific work or renown. He continued to hold the post of Chief Medical Officer for leprosy as long as he lived, and in an article written in 1885 he states almost as if it were a self-evident corollary "that we cannot experiment with human beings."

As regards the other protagonist in the drama, "the girl, Kari Nielsdatter Spidsöen," however, we hear nothing more. We know little of what the case can have meant for her, and nothing of her later life.

But if one, with the help of a little imagination, tries to appreciate her position, what she was subjected to, and the fate that she, like most other leprosy patients had to face, I, for my part, have no doubt that the conviction was correct even from the purely humane point of view.

DISCUSSION

If we then ask ourselves whether the forensic approach in the Armauer Hansen case has any relevance today, we must not omit from our consideration the factor that medical technic has developed enormously in the years that have intervened. Operations and experiments that were earlier unknown have today become commonplace, and one would scarcely venture to predict how far the technical advance will continue in the future. It would also be unlikely that medical ethics have not altered in many ways during the course of these years. But a lawyer has not the necessary insight to pronounce on this theme.

Accordingly, the answer to our question will, at any rate as regards Norwegian law, have to be given with considerable reservation. On several occasions it has, for instance, been authoritatively stated that what is generally accepted as defensible and sound medical practice must to a great extent be accepted as lawful. As a typical example I can mention the discussion relating to the problem of abortion which took place in Norway at the end of the 1950s. Section 245 of the Norwegian Criminal Code of 1902 penalized the unlawful termination of a pregnancy or its aiding or abetting. The statute itself offered no guidance as to the circumstances in which termination of a pregnancy was "unlawful," but there is little doubt that when the statute was enacted, the general opinion was that only when a serious threat to the mother's life or health actually existed, in other words an emergency situation in the strictest sense, was it permissible to terminate the pregnancy. In the years between the two world wars, however, opinion within the medical profession altered. Gradually, house surgeons considered themselves justified in extending this licensed area so as to include purely medical indications, and upon occasion even eugenic and ethical factors were decisive, while in especially precarious cases *abortus provocatus* was undertaken on the additional basis of social and humanitarian considerations. The prosecuting authorities in Norway took no action against this new practice, and our leading jurist in the field of criminal law, Professor Johs. Andenæs, in an article written in 1956 ([12]), commented that the new practice must now be accepted as enjoying legal sanction, since the principle of the balance of interests which lay behind the emergency rule must lead to a result different from what one thought 50 years earlier. In the preliminary stages of drafting a new Abortion Act this view was then also accepted as fundamental by the legislative authorities, and the purpose of our new Act of 11 November 1960 relating to termination of pregnancy was not to formulate new law, but to provide clearer rules about the extent to which medical intervention was lawful, and what procedure should be adopted. I may add that it seems as if the practice in the past ten years has proceeded in the direction of a constantly progressive liberalization, and that this factor is invoked in current discussion as one of the arguments in favor of going over to unrestricted abortion.

Thus I think it right initially to base one's view on the proposition that what is accepted as ethically defensible in responsible medical circles will also be accepted by the courts as lawful. Conversely, a form of practice that is unacceptable from a responsible medical angle will scarcely be accepted by the courts. However, this is no more than a starting point. Statutory provisions with definite, and not arbitrary, criteria cannot be reshaped unless the practice in question is so extensive and is supported by such a weight of legal opinion that the conditions governing the establishment of a common law practice are fulfilled. And, what is even more important, the courts will not allow a particular professional group to develop a practice that is in conflict with society's sense of justice at any given time or against the prevailing view on fundamental human rights.

If we, on this basis, return our attention

to the Armauer Hansen case, it is necessary to distinguish between operations and experiments which are intended to help the individual patient and those that are intended to gain new knowledge and thereby benefit other present or future patients.

When it is a case of treating an individual patient, a great deal is required before the legal authorities will interfere with the individual doctor's arrangements ([13]). But when one is concerned with operations or more painful or intrusive experiments, one is faced with the problem of the patient's consent. The Norwegian Criminal Code distinguishes between two types of bodily harm. As regards the ordinary, unspecified form of bodily harm, the rule is that the patient's consent is a defense against a criminal charge. This provision applies in the case of ordinary operations, such as those which require total anesthesia, since section 229 of the Act specifically mentions inducing a state of unconsciousness as an example of ordinary bodily harm. In the case of the more grievous forms of bodily harm, on the other hand, such as loss of sight or hearing, or lengthy illness, we have no provision excluding criminal liability in the event of consent. Nevertheless it is certain enough that in Norway, as in other countries, a serious operation, for example an amputation, is lawful when consent has been given and the intervention is medically necessary or desirable. But, in the case of both types of bodily harm, it is the law that the operation, even if it is in itself medically defensible, is not justified if the patient opposes it. A normal adult person can thus not be compelled to undergo a serious cancer operation even if the prognosis is death if the disease is permitted to run its course. Doubtful questions in this context relate to situations in which it is not possible to obtain the patient's consent because he is unconscious, and to the degree to which the patient shall be informed of the seriousness of the disease and the operation before his consent is obtained. In the present context I shall let these questions go unanswered, since they do not really concern the forensic approach adopted in the Armauer Hansen case ([14]), and will only make the observation that in a case of doubt one must resort to what is defensible and necessary, i.e., in accordance with general medical ethics.

A completely different situation arises in the case of operations and experiments that are not undertaken for the benefit of the individual patient. Here we come across a whole range of cases. At one extreme one can mention the experiments with mental defectives in Nazi Germany which were revealed at the Nuremberg trials; transactions which in their thorough contempt for the integrity of the individual human being cast aside every vestige of medical ethics, and which are directly contrary to legal provisions relating to serious bodily injuries. At the other end of the scale, we find the routine and only slightly disturbing investigations of patients in hospitals. There is reason to assume that such investigations are undertaken to a rather greater extent than is necessary for the benefit of the individual patient, but, provided that they are not dangerous and not specially distressing, I have little doubt that they are lawful even without the express consent of the patient.

It is the cases in between that are of interest in the present context; experiments which entail a certain risk or which are inseparable from considerable pain or suffering. In these cases one must, in my opinion, unconditionally require that consent on the part of the patient is necessary in order to render the experiment lawful ([15]). In-so-far as a doctor is of the opinion that only experiments on human beings can lead to progress in mastering a disease, he is quite free to experiment on himself, as Danielssen did in 1844. Additionally, it will normally be lawful to experiment on coworkers or patients if they, after being fully informed, quite willingly give their consent. Beyond this one cannot go. Accordingly, consent must be a prerequisite if the experiment is to be lawful, and the more serious the experiment is, the more stringent must be the requirements as regards the patient's having a complete insight into what he has consented to and as regards his complete freedom to give or withhold his consent. Clearly the requirement as to complete freedom becomes es-

pecially relevant if experiments are undertaken on inmates of institutions, whether these be medical, sociological, or penal institutions.

Finally, I concur with the Danish jurist in the sphere of criminal law, Professor Hurwitz, in thinking that respect for individual human life will set an ultimate limit to what experiments are permissible even when consent has been given ([16]). I would assume that the requirements that I have here put forward do not exceed those recognized by Norwegian and international medical ethics, but it follows from what I have written above that I consider them as minimum requirements that the law must demand even if they were to go beyond what is acceptable by the medical profession at any given time.

A certain amount of support for the views I have advocated can probably be found in the drafting of the Norwegian Act relating to transplantation. Both in the committee report and in the Act of February 9, 1972, it has been clearly stated, in accordance with current medical practice in Norway, that consent from a living donor can provide the basis for a lawful removal of organs from an adult, psychically healthy person for the purpose of transplantation, but only if the operation is of such a kind that it cannot lead to serious harm to the donor. There is a proposal to go beyond current practice by introducing a statutory provision that the consent shall be given in writing after the donor has been informed by a doctor of the nature of the operation and the risk it entails, while at the same time a duty is placed on the doctor to ensure that the person concerned has understood the explanation. But the Act expressly provides that the drawing of blood, skin biopsies, and other minor interventions can occur without transgressing the statutory provisions. I would assume that the principles on which the Transplantation Act is based will also be correspondingly applied to other operations or experiments which go beyond what is necessary to benefit the patient concerned.

As a conclusion I must then assume that the legal opinion on which the Armauer Hansen judgment was based also represents Norwegian law in force today. There is no reason to assume that an operation of the sort undertaken by Armauer Hansen would infringe the law if consent were first obtained, but the imperative condition for lawfulness, namely consent and a completely willing consent, was absent in his case. Should a similar case occur in the future, I also assume that the prosecuting authority in Norway would be bound to take the case to court and that the court would be bound to impose a conviction.

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REFERENCES

1. Medicinsk Rev. **2** (1885) 357-358.
2. "I am indeed of the opinion that it is more worthy and courageous to take the blame upon oneself, but it is undeniably more difficult and demands more moral courage than casting the blame upon providence or fate." Quotation from the article referred to in reference 1.
3. VOGELSANG, TH. M. *Gerhard Armauer Hansen, 1814-1912.* Oslo, 1968, pp 80-89.
4. The Criminal Code, chapter 15, section 11, read thus:
   "If such an act as is referred to above in this chapter is committed against an innocent person, a person so convicted shall be liable to imprisonment or penal servitude in the fifth degree, in so far as the act has not otherwise been more severely penalized."
5. The Criminal Code, chapter 15, section 10, read thus:
   "One who without his act having such effect as is stated in sections 1, 2, 3 or 4, has dealt another a cut or a blow, or has in any other way injuriously assailed his person, or has torn off, rent asunder, or marred the clothes he was wearing shall, if he has acted premeditatedly or with in-

tent, be liable to imprisonment or a fine, and otherwise to a fine."

6. The Criminal Code, chapter 24, section 27, subsection (1) read thus:
"If a senior government official in cases other than those mentioned above misuses his official position to his own advantage, or against his better judgment to offend anyone, or to undertake anything whereby any private or public right is infringed, or maliciously fails to carry out his official duty, he shall be liable by way of penalty to loss of his office or to dismissal."
7. The Criminal Code, chapter 24, section 32 read thus:
"The above provisions relating to senior government officials or their official positions shall also apply to other officials as well as to the positions entrusted to them, with this difference, that in the cases in which a senior government official would be liable to loss of his office or to dismissal, other officials may instead of these penalties be subject to imprisonment or fines according to the circumstances. Moreover, the aforegoing provisions shall apply not only to those who are established in their respective offices, but also to those who are otherwise appointed to undertake similar duties or to carry out some task relating thereto."
8. VOGELSANG. *Op. cit.*, p 89.
9. VOGELSANG. *Op. cit.*, pp 78-79.
10. VOGELSANG. *Op. cit.*, p 89.
11. Medicinsk Rev., *loc. cit.*, p 358.
12. Norsk Rettstidende (Norwegian Law Reports), 1956, p 833.
13. A case in which a house surgeon was charged with reprehensible conduct in his treatment of a patient is reported in Norsk Rettstidende (Norwegian Law Reports), 1968, p 959.
And in an as yet unpublished judgment reported in Norsk Rettstidende, 1972, p 1161, a doctor was convicted of unlawfully prescribing drugs for psychiatric patients, in connection with his treatment of them.
14. For further details see Johs. Andenæs: Alminnelig strafferett (General Criminal Law), 1956, pp 170-171, and Spesiell strafferett (Special Criminal Law), 1964, pp 41-46.
15. To this effect the so-called "Declaration of Helsinki," passed by the World Medical Association in 1964, see III, no. 3.
In Norway the categorical requirements of comprehensive information and consent contained in the Declaration have been criticized by Dr. Erik Enger in his book *Controlled Clinical Trials*, Oslo, 1966 (with a summary in English).
I cannot quite accept this criticism, but shall content myself with observing that the physician must be allowed a certain latitude in this field, and that the Declaration cannot without further question be assumed to express Norwegian law on this subject.
16. HURWITZ, STEPHEN. *Den danske Kriminalret, alminnelig del* (Danish Criminal Law, general section), 2nd edition, 1961, p 305.