The Concept of Causality (*Kausalität*) with respect to the Diagnosis of Head-Neck Trauma and Tinnitus in German Law

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If, as a neuro-otologist, you are required to give a diagnosis in court of the medical consequences of a case of head-neck trauma and tinnitus, the attorney will usually require your opinion on the following points:

What medical (i.e., neuro-otologic) injuries have you found? What diagnosis have you made? Is there a connection between these injuries and a specific accidental injury or incident?

The first question has a purely medical basis and can be answered with medical expertise alone.

The second question, even if it is to be answered by a medical specialist, requires familiarity with the legal concept of *Kausalität*.

The problem is centered on two other questions:

Was the accident the sole, or at least a contributory cause of the injuries? Did other factors not related to the accident play a role? In patients with head-neck trauma, physicians often diagnose "pre-existing injury", "pre-existing illness", or "degenerative change." One might mention here, incidentally, that this is readily—I personally believe too readily—accepted by judges because it makes their job considerably easier. The following two cases make this point clear:

A 16-year-old girl who had been involved in a head-on automobile collision had headaches, dizziness, and tinnitus diagnosed as symptoms following radiographic examination showing an osteochondrosis at the level of D1.

The second case involved a 36-year-old woman who had been involved in a rear-end automobile collision. The diagnosis was made by a surgeon who did not have access to radiographs of the patient. The diagnosis read: "If radiographs were available, one would generally expect to see a certain pre-existing degeneration in the area of the cervical vertebrae in this 36-year-old female patient. The injuries of which the patient is complaining are not accident-related and have nothing to do with the accident in question."

Here, the symptoms were dizziness, headaches, and tinnitus, too. Neither of these diagnoses are exceptional. Rather, when, as here, they have been made by surgeons and orthopaedic specialists, they are the rule; and if the reader will forgive an attorney's venturing an opinion on an area outside his specialist field, they seem to be rather questionable from a medical point of view. In any case, they are untenable in law.

To clarify this statement we must first explain the concept of causality, as it is understood by attorneys in Germany. At essence is the concept of "liable causality", i.e., whether a connection can be established in law between an accident and a certain physical dysfunction, such as tinnitus, loss of balance, or damage of hearing.

In German civil law, that is, in cases of legal liability, the following precept applies: According to the concepts of logic and natural science, *cause* is the *totality of all conditions* which contribute to the final outcome. Also of relevance is the theory of conditions or equivalence, according to which all conditions carry equivalent weight. It follows that any event which cannot be dispensed with without the final outcome's being affected (*conditio sine qua non*) is causal.[7,11] Whether a particular cause is *conditio sine qua non* for a particular outcome is the first, but not the only question which must be asked.

Filtering out legally relevant criteria (from the mass of general criteria) which could subsequently be considered to be a cause is achieved with the help of the so-called Theory of Sufficiency (*Adäquanztheorie*).[7,11]

Whether or not an injury can be adequately causally attributed to an accident can

be formulated approximately as follows, using the formulas of German law. The event in question (e.g., the automobile accident) must be one which was capable of resulting in an outcome of the type in question, in general, and not under conditions which are particularly unusual or improbable or which would not be considered under normal circumstances.[11]

In the area of compulsory accident insurance, that is, in cases of accidents at work or in job-related illnesses, German civil law presupposes a concept of causality which differs from the above. Because of this, German civil law, particularly the area of compulsory accident insurance, the *Bundessozialgericht* (BSG) (German federal welfare court) has developed the causal Doctrine of Significant Condition (*wesentliche Bedingung*).

Only those causes which, because of their particular relationship to the outcome, have played a significant part in that outcome, are seen as legally relevant.[10,13]

No generally valid definition exists for when a condition is "significant" and so the reader should not expect to find one here. I would offer the following example.

The significance of a condition cannot be judged solely by whether this latter would, "from experience", in general, and under similar circumstances and in the case of other people, have led to the same outcome. It is also irrelevant whether a specific event was "generally likely" to bring about a specific outcome. The relevant question is whether in this concrete instance, the outcome can be attributed in significant measure to the cause.

The *Bundesgerichtshof* (German federal supreme court) had occasion in 1969 to apply these principles to the question of whether certain injuries were attributable to a head-neck trauma or to a pre-existing injury / deterioration. The Court found:

> "The defendant is also liable for those medical consequences of an accident which manifest themselves only because the injured person had a pre-existing medical condition or injury. The mere possibility that the same or similar medical problems would have arisen even without the accident is not sufficient reason to reduce the liability of the defendant."

The case concerned an accident victim who was claiming damages for a spinal injury caused by a head-on collision. The defendant's insurers argued that the complainant already had a predisposition for such injuries because of deterioration of his cervical vertebrae. This predisposition, however, had not manifested itself before the accident. The court, by reason of the above-mentioned criteria, judged that the deterioration of the vertebrae did not reduce the liability for damages because it was not proven that the medical problems would have developed without the accident's having occurred.

These connections are now undisputed in legal literature. They correspond, moreover, despite the age of the federal court decisions cited, to most recent law, as a *Bundesgerichtshof* judgment of 1992 and a second judgment by the *Oberlandesgericht München* (state supreme court, Munich) of 1993 demonstrate.[2]

In the event of difficulty in establishing the boundary between the results of an accident and those resulting from a pre-existing medical condition, where the problem concerns the significance of a particular condition, the *Bundessozialgericht* (federal court) has ruled:

> "If a health problem is based on a medical condition which up until the point in question has not been made manifest by an illness or injury ("dormant condition"), and if the illness or injury has only been brought about by the injurious event in question, then the pre-existing medical condition as well as the injurious event stand side by side as relevant conditions. If both sets of conditions are approximately "of equal weight" then the medical problem must be regarded as having been caused by the accident and this latter must therefore be regarded as the cause."[3]

It is clear, then, that from a legal perspective, the concepts of pre-existing illness and so-called degenerative conditions can in no way fulfill the roles which is often forced on them in making diagnoses and in the court judgments which unfortunately are based on these diagnoses.

If we now, apart from the concept of causality, take account of undisputed medical facts, it then follows that pre-existing medical

conditions can play no significant role in the diagnosis of head-neck trauma.

It is more than doubtful if osteochondrosis can be classified as a medical condition at all; or, as Hanns-Dieter Wolff puts it: "There is no adequate justification, to say nothing of any proof, which would allow one to classify the normal aging process as "pre-existing illness/injury".

It may be that vertebrae already damaged by ostochondrosis constitute a "locus minoris resistentiae".[6,8]

The principle cited already also applies here: If an accident has a greater effect on already-damaged cervical vertebrae than would have been the case with less-damaged or undamaged vertebrae, this can have no bearing on causality, as demonstrated above, and cannot affect the liability of the defendant. This finds its legal expression that the liability of the defendant is in no way diminished if the plaintiff's physical condition is such that (serious) injury is more likely. In other words: A person who has injured someone who is already in a weakened state of heath cannot expect to be treated as if he had injured a fully healthy person.[7]

The following, however, is also decisive: According to physicians to whom I have spoken, who are researching or involved in treatment in this field, that is, osteochondrosis and spondylarthrosis of the middle and lower cervical vertebrae and, of course, of the thoracic trauma), then you should consider the above-mentioned principles regarding the distinction between medical conditions caused by trauma. You will then be expected to give the court explanations of why—or why not—the cause of a symptom is to be found in an accident or in job-related noise levels, and if and to what extent the pre-existing medical condition plays a role.

If it cannot be proven that the condition would have manifested itself even without the event in question, then the accident or the job-related strain alone are the cause of the illness/injury, even if the pre-existing medical condition created a predisposition for the illness/injury or made it worse.

A final request: Should neuro-otology not yet have found the right ways to distinguish between pre-existing medical conditions and those resulting as opposed to the consequences of an accident, please look for them! We lawyers need the help of neuro-otology.

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Acknowledgment to M. J. Turner and M. V. Rother.

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