

Personal Injury – Before and After the PFAS Case

Published 27 november, 2025

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The question of what constitutes personal injury involves both legal (normative) and evidentiary (factual or knowledge-based) considerations. The assessment is linked to systematic and methodological foundations within tort law and can ultimately be connected to the functions of damages, primarily in the form of reparation and prevention. In this article the concept of personal injury is analyzed in connection with PFAS exposure on the basis of a Supreme Court case in Sweden. The question is whether such exposure constitutes personal injury in the absence of concrete symptoms or diagnosed health impairments. The Supreme Court has by its ruling broadened the application of the traditional concept of personal injury. Most likely this expansion will need to be clarified in future rulings. It is suggested to be wise to exercise restraint in the future.

This article has previously been published in Swedish as “Personskada – före och efter PFAS-målet” in Hans Jacob Bull, Agneta Bäcklund, Johnny Herre (ordförande), Christina Ramberg och Johan Schelin (Red.), Festskrift till Svante O. Johansson, Stockholm: Jure (2025) Svenska Sjärrättsföreningens skriftserie nr 87, pp. 191–220.

1. The PFAS Case – What Is It About?

1.1 Background

The Swedish PFAS case has attracted considerable attention. Residents of Ronneby Municipality have been exposed to high levels of PFAS (per- and polyfluoroalkyl substances) through their drinking water.¹ The contamination originates from firefighting foam used by the Swedish Armed Forces since the 1980s during fire drills at the Blekinge Air Force Wing. Over time, the substances have migrated from the training site into the groundwater and subsequently into the municipal water supply. Drinking water for residents is provided by Miljö och Teknik AB (Miljöteknik), a company owned by Ronneby Municipality. PFAS concentrations measured in certain individuals rank among the highest ever recorded worldwide.

A substantial number of those affected have, for many years, pursued claims for damages against the municipality. In an initial judgment, NJA 2018 p. 475 “Dricksvattnet” (Drinking Water), the Swedish Supreme Court held that Miljöteknik was liable for damages under the Swedish Product Liability Act (produktansvarslagen, 1992:18) for supplying contaminated drinking water to municipal

residents. This constitutes a case of strict liability arising from a safety defect in a product – drinking water – where the damage has occurred to an interest other than the product itself.²

PFAS substances do not occur naturally; they are synthetic compounds that have been manufactured since the 1940s.³ There are currently over 10,000 known variants of PFAS, and the number is constantly increasing.⁴ PFAS repel grease, dirt and water, and are used in a wide range of products, including cosmetics, food packaging, Teflon pans, outdoor clothing, footwear, water-repellent treatments, medical devices and firefighting foam. They are sometimes referred to as forever chemicals. Their chemical stability renders them resistant to degradation in biological systems. As a result, PFAS accumulate in the food chain and are expected to impact ecosystems for a long time to come. The substances spread through air and water and have been detected in locations where they were never used.⁵ PFAS appear virtually everywhere, from north to south – in surface water as well as in groundwater. PFAS substances are easily absorbed and accumulate in living organisms, primarily in the liver and bloodstream.⁶

It is recognised that high levels of PFAS have adverse effects on human health.⁷ Ongoing research seeks to clarify the associated

- 1 PFAS, or highly fluorinated substances, is a collective term for a large and complex group of substances with varying properties and wide use in society. The most well-known PFAS variants are perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), see the Swedish Chemicals Agency (Kemikalieinspektionen), 2024-12-28, <https://www.kemi.se/hallbarhet/amnen-och-material/pfas> and the Institute of Environmental Medicine (IMM), The Karolinska Institute (Institutet för miljömedicin, Karolinska Institutet), 2024-12-28, <https://ki.se/imm/miljomedicinsk-riskbedomning/riskwebben/perfluorerade-och-polyfluorerade-amnen>.
- 2 The Product Liability Act is based on EU regulations, see further section 3.1 below.
- 3 PFAS substances have been around since the 1920s and came into wider production in the 1950s.
- 4 See the Swedish Chemicals Agency, 2024-12-28, <https://www.kemi.se/hallbarhet/amnen-och-material/pfas>. Depending on how PFAS substances are defined and delimited, the number of substances may be significantly higher. For a broader definition, see *i.a.* OECD, Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances: Recommendations and Practical Guidance, Series on Risk Management, No. 61, 2021.
- 5 PFAS have, for example, been found in polar bears in the Arctic, see the Swedish Society for Nature Conservation (Naturskyddsforeningen), 2024-12-28, <https://www.naturskyddsforeningen.se/artiklar/vad-ar-pfas/>.
- 6 On the spread and effects of PFAS substances, see, among other sources, IMM, The Karolinska Institute, 2024-12-28, <https://ki.se/imm/miljomedicinsk-riskbedomning/riskwebben/perfluorerade-och-polyfluorerade-amnen> and the Swedish Society for Nature Conservation, 2024-12-28, <https://www.naturskyddsforeningen.se/artiklar/vad-ar-pfas/>.
- 7 In 2024, the OECD organized a global environmental forum on risk management, safer alternatives, etc. concerning PFAS, see, 2024-12-28, <https://www.oecd.org/en/events/2024/02/global-forum-environment-per-and-polyfluoroalkyl-substances.html>.

risks, although perhaps not to the extent one might expect.⁸ Considerable uncertainty remains regarding the health implications of PFAS exposure, and the degree of harmfulness varies between different compounds. As is often the case, scientific findings require interpretation – partly because results are seldom unequivocal, and partly because the research remains incomplete. Moreover, it is not possible to determine on an individual basis who will develop a specific disease as a consequence of PFAS exposure.

*According to the Institute of Environmental Medicine (Institutet för miljömedicin), animal studies indicate that PFAS compounds may cause cancer and adversely affect the liver, fat metabolism, thyroid hormone regulation, and the immune system. Exposure during the foetal period has been associated with lower birth weight, behavioural alterations, and reduced survival in newborn animals. Human studies conducted in contaminated environments have demonstrated a link between elevated PFAS levels and increased blood cholesterol, as well as hepatic effects. Other population-based studies have identified correlations between PFAS concentrations in blood and reduced birth weight or impaired immune function in children. With respect to cancer, a modest increase in the risk of kidney and testicular cancer has been observed.*⁹

Human exposure to PFAS occurs in various pathways, with food and drinking water being the primary sources.¹⁰ Under the EU Drinking Water Directive, PFAS concentrations exceeding 100 ng/l in drinking water are prohibited.¹¹ Some researchers believe that this threshold is excessively high.¹² Within the EU, there are proposals to further lower the permissible limit. According to the Swedish Chemicals Agency, approximately 20 million individuals

across Europe are currently exposed to drinking water with PFAS levels exceeding the revised thresholds under consideration.¹³ Encouragingly, research is also being conducted to develop treatments aimed to “clean” the human body of PFAS.

The use of PFAS is regarded by many as one of the major environmental risks of our time, which will trigger a wave of *damages claims*. To some extent, we are already there. PFAS lawsuits are ongoing around the world and are closely monitored, not least by the leading reinsurance companies.¹⁴ PFAS is being compared to substances such as asbestos and thalidomide (Neurosedyn), which have previously given rise to so-called toxic torts – claims for damages arising from exposure to hazardous substances. The disputes are typically characterised by the involvement of large groups of claimants and are often pursued as class actions.¹⁵ In other instances, legal proceedings are initiated by public representatives against polluting entities, seeking environmental remediation.¹⁶ In Sweden, litigation to date has focused on emissions originating from the armed forces.¹⁷ The PFAS case has attracted international attention as one of the pioneering matters to reach a Supreme Court.

*Exposure to PFAS in drinking water affects not only residents of a municipality, but also individuals who work or spend time there. Where a person has ingested high levels of PFAS through drinking water in the workplace, this may constitute an occupational injury. A few insurance claims have been reported in Sweden, and more can be expected. The outcome of the PFAS case is of relevance in these matters.*¹⁸

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- 8** Studying the long-term risks of this type of substance is a challenge. We often do not know which substances are present in human bodies, and it is difficult to find a group to study. Due to testing of affected individuals in Ronneby municipality, a broader data foundation is available there.
- 9** Knowledge of the health effects of PFAS compounds is derived primarily from studies of PFOS and PFOA. See IMM, The Karolinska Institute, 2024-12-28, <https://ki.se/imm/miljomedicinsk-riskbedomning/riskwebben/perfluorerade-och-polyfluorerade-amnen>. Cf. the PFAS case and the Court of Appeal’s [Hovrätten över Skåne och Blekinge] overall assessment of the state of research on PFAS, judgment issued on 2022-12-20, case T 1665-21 p. 9 f. (NJA [Nytt Juridiskt Arkiv] 2023 p. 916, see p. 944 f.). Although PFOS and PFOA have in principle been phased out of commercial products, they remain in the environment.
- 10** PFAS can also be transferred to fetuses via the placenta and to infants via breast milk, see, for example, IMM, The Karolinska Institute, 2024-12-28, <https://ki.se/imm/miljomedicinsk-riskbedomning/riskwebben/perfluorerade-och-polyfluorerade-amnen>.
- 11** PFAS in drinking water is regulated at EU level by the Drinking Water Directive, Council Directive 2020/2184 on the quality of drinking water. For Sweden, see also the Swedish Food Agency’s (Livsmedelsverket) regulations on drinking water (LIVSFS 2022:12) with additional limit values.
- 12** See, for example, the remarks in Blekinge District Court’s judgment in the PFAS case, Blekinge tingsrätt, case T 1530-16 et al., p. 32 f. (NJA 2023 p. 916, see p. 934).
- 13** See, 2024-12-28, <https://www.kemi.se/hallbarhet/amnen-och-material/pfas>.
- 14** Abroad, there are law firms that specialize in PFAS litigation. According to Bloomberg Law, more than 6,400 PFAS lawsuits had been filed in US courts from July 2005 to March 2022, see Andrew Wallender, Companies Face Billions in Damages as PFAS Lawsuits Flood Courts, 2022-05-22, <https://news.bloomberglaw.com/pfas-project/companies-face-billions-in-damages-as-pfas-lawsuits-flood-courts>. See also, for further discussion, Schultz, Mårten, and Öberg, Mattias, Risk och personskada: skadeståndsrättslig frågeställning i miljömedicinsk belysning, [Risk and personal injury: tort law issues in an environmental medicine perspective], JT [Juridisk Tidskrift] 2023–24 p. 242 ff.
- 15** The first and most well-known PFAS case was brought against the American company DuPont. The case is covered in the documentary *The Devil We Know* and was also the basis for the feature film *Dark Waters*.
- 16** However, cleaning up PFAS in the environment is both difficult and expensive. There are methods for purifying drinking water from PFAS, but they are extremely costly. Cleaning up PFAS in the environment is estimated to cost thousands of billions within the EU and take a long time, according to a news report on Swedish Radio, P1 Morgon, Sveriges Radio, 2025-01-14.
- 17** In case 13145-21 on 2024-04-09, the Land and Environment Court of Appeal (Mark och miljööverdomstolen), ordered the Swedish Armed Forces to pay just over SEK 37 million to Uppsala Vatten och Avfall AB for the remediation of PFAS contamination from the Uppland Air Force Wing. The Swedish Armed Forces was denied leave to appeal to the Supreme Court, 2025-04-01, and the Land and Environment Court of Appeal’s judgement is therefore final. It is likely that there will be more cases involving claims for PFAS remediation costs.
- 18** In such cases, it is considered an occupational injury in the form of other harmful effects (annan skadlig inverkan). If the conditions are met, compensation can be paid in accordance with the national occupational injury insurance, Chapters 38–42 of the Social Insurance Code (socialför-

1.2 Legal Questions

In a second phase, NJA 2023 p. 916 “PFAS”, the proceedings in the PFAS dispute focused on the question of whether affected municipal residents suffer personal injury as a result of elevated PFAS levels. In other words, a declaratory action – is there personal injury or not?¹⁹ The fact that a substantial number of individuals have high concentrations of PFAS in their bodies is measurable and indisputable. The legal question is whether this constitutes personal injury, in the absence of concrete symptoms or diagnosed health impairments associated with the PFAS exposure. Existing research indicates an *increased risk* of certain future health conditions and diseases among individuals with high level of PFAS in the body.²⁰ What significance does the heightened risk have for the question of whether personal injury exists?

However, the PFAS ruling did not address the question of whether affected individuals are entitled to *compensation*, in the event that personal injury is established. That question remains unanswered.²¹

Nor have the court proceedings examined if certain diseases – such as specific forms of cancer – developed by some affected individuals, are attributable to PFAS levels in the body. This question concerns *the causal link* between PFAS exposure and *existing* diseases and health impairments. Should individual PFAS victims pursue compensation for specific medical conditions, the causal relationship will be subject to examination. Such an assessment is based on probabilistic evaluations, grounded in scientific research findings on the effects of PFAS substances on the human body in relation to certain exposure or levels of PFAS. Correlation issues of this kind are common in occupational injury insurance, where the impact of harmful factors may occur over a shorter or longer period of time.²²

In occupational injury insurance, the assessment of causation is, broadly speaking, based on scientific evidence indicating an elevated risk of a certain disease in the working environment. If an employee has typical symptoms, this may support the recognition

*of an occupational injury. The circumstances of the individual case influence the appraisal.*²³ *One problem is that research may show an increased risk, but studies rarely clarify the degree of exposure required for a substance or process to be harmful.*²⁴ *This complicates the causation analysis. Nonetheless, the experience gained from assessing work-related injuries can be applied to environmental harm in the form of personal injury resulting from PFAS exposure.*

Ultimately, evidentiary considerations are of significant importance in the PFAS case. How personal injury is proven is closely tied to how the injury itself is defined.²⁵ The Supreme Court does not explicitly discuss *the standard of proof* that applies when determining personal injury, yet the evaluation of evidence is of direct interest to the outcome of the case.²⁶

1.3 Reasons for and Against Personal Injury

The question of what constitutes personal injury involves both legal (normative) and evidentiary (factual or knowledge-based) considerations. The assessment is linked to systematic and methodological foundations within tort law and can ultimately be connected to the functions of damages, primarily in the form of *reparation* and *prevention*. There are reasons both for and against considering elevated PFAS levels in the body as personal injury. Some of these will be outlined here.

No rational person would voluntarily expose themselves to high levels of PFAS. PFAS is clearly something we do not want in our bodies. It is easy to empathize with the anxiety, anger, and frustration of those affected.

Bodily injuries often have a tangible and profound impact on the individual. In the case of more serious harm, the ability to earn a living and participate in society is affected. In other words, there is a strong *interest in compensation*. This supports a generous interpretation of the concept of personal injury. Moreover, compensation for personal injury is largely covered by *insurance*, distributing the cost across a collective. It is no coincidence that several no-fault

säkringsbalken, 2010:110), and the collective agreement-regulated protection in the Occupational Injury Insurance (Trygghetsförsäkring vid arbetsskada, TFA). Typically, however, individuals are more exposed in residential settings than at their place of work.

¹⁹ The case is analyzed by Bratt, Stina, PFAS-domen – Nytt principavgränsande från Högsta domstolen om rätten till ersättning för PFAS-skador [The PFAS case – New landmark decision from the Supreme Court on the right to compensation for PFAS damage], JP Infonet, 2024-01-17.

²⁰ There are currently limited research studies. As stated, the results indicate an increased risk of certain health impairments and diseases. The risk varies between different PFAS substances and health effects, and by all accounts, more research is needed.

²¹ In October 2024, the victims also applied to the Chancellor of Justice (Justitiekanslern, JK) for compensation of SEK 100,000 each for non-pecuniary damage. The application against the state was based on Chapter 3, Section 4 of the Swedish Tort Liability Act, *i.e.* damages due to *violation of rights*. The application was rejected on the grounds of limitation, see JK decision ref. no. 2024/6643.

²² The Swedish occupational injury system is based on centralized contractual regulation – through collective agreements – with unified administration, which facilitates the handling of injuries; it does not matter whether the employee has been exposed to certain hazards at one or more employers. In the case of PFAS exposure, it is generally easier to identify a specific responsible party linked to drinking water than to food and other widespread sources.

²³ In addition to research and degree of exposure, factors such as latency period, competing causes of injury and the overall evidence surrounding the occurrence of the injury are taken into account.

²⁴ The Swedish Agency for Health Technology Assessment and Social Services (Statens beredning för medicinsk och social utvärdering, SBU) has been tasked with compiling summaries of the scientific research situation regarding the significance of the working environment for the occurrence of occupational injuries.

²⁵ See section 3.2.3 below.

²⁶ The burden of proof is discussed in the district court’s grounds for judgment. The district court notes that, as a general rule, tort law requires full proof, meaning that the injured party must substantiate their claims. The court also points out that the standard of proof may vary depending on the circumstances and calls for further discussion. On the standard of proof, see section 3.3.6 below.

compensation schemes have been developed in this area.²⁷ The question of what qualifies as personal injury is brought into sharp focus when it comes to mass damages or large numbers of victims, where the financial implications are substantial.²⁸ Many fear that we have only seen the beginning of the PFAS crisis.

However, in terms of damages, the focus is not on the injury itself, but on its consequences, based on how *the heads of the compensation* are defined in the Swedish Tort Liability Act (skadeståndslagen, 1972:207).²⁹ The establishment of personal injury does not necessarily entail a right to damages, although this is usually the case. Compensation is awarded for expenses, loss of income, and non-pecuniary damage (pain and suffering, disfigurement and disability, and particular inconvenience) resulting from personal injury, Chapter 5, Section 1 of the Act. In addition, certain compensation is paid in the event of death, Chapter 5, Section 2.

Elevated PFAS levels are associated with an *increased risk of future disease and poor health*, including the anxiety of living with uncertainty about the future. From a legal policy perspective, it may be argued that such undeniably negative uncertainty should be compensable – if the risk originates from a tortious activity.³⁰ From a collective standpoint, preventive considerations are equally relevant in relation to general risks as to specific harm. In protracted cases, there is also a risk that claims for compensation will become time-barred before damage materializes.³¹

Yet, the future is inherently uncertain, and the boundaries of tort law must be drawn somewhere. Extensive and complex claims for damages are burdensome to handle and easily create unfounded expectations.³² Most individuals who suffer from disease receive no compensation, so why should some be prioritized in ways that are difficult to manage?³³ Preventive measures can be pursued through other social mechanisms.³⁴

In conclusion, valid reasoning can be made in both directions.³⁵

Regardless of one's legal policy stance on compensation for future risks of personal injury, such claims present systematic challenges. Assessing a future risk of injury cannot be done using traditional tort law methods and basic principles for determining damages.

This is an entirely *new problem* in Swedish tort law. How should a risk of future injury be evaluated and compensated, and what compensation should be awarded if the risk later results in actual harm?³⁶ It is challenging to initiate such a far-reaching legal development through case law.

The concept of personal injury is well established and generally uncontroversial. Its interpretation has not posed any major difficulties. A new and ambiguous legal application, however, gives rise to *legal uncertainty* with a need for judicial clarification and potentially triggering a *wave of litigation* with unpredictable outcomes. Given the close relationship between tort law and various types of insurance, an unclear legal framework may have ripple effects across other domains. Legal developments of this kind are better suited to legislation reform, where new provisions can be discussed and guidance provided in preparatory work. This calls for caution.³⁷

At the same time, we live in a world where chemical substances and processes increasingly threaten our environment and health, ultimately jeopardising our living conditions. It is important to safeguard *the preventive function* of tort law in relation to *environmental harm*, so that the presence of hazardous substances and processes is counteracted. Those who use chemicals should be encouraged and incentivised to sound management. It is unfortunate if damages are denied due to a narrow conceptual framework, particularly when the legislature remains passive. This applies not only to this case, but in general. The fact that this case concerns drinking water makes the issue even more urgent.

Accordingly, there are compelling reasons both for and against adopting a new and generous interpretation of the concept of personal injury within the application of tort law.

²⁷ See insurance schemes relating to *i.a.* occupational injuries, traffic injuries and patient injuries.

²⁸ Some insurance companies choose to make exceptions for PFAS damages in the liability insurance policies they offer.

²⁹ See the Supreme Court's grounds for judgment, paras. 24–25. See also Carlsson, Mia, Omprövning om igen – svårigheten att bestämma skadestånd vid personskada, Festskrift till Jan Kleineman [Reassessment again – the difficulty of determining damages in personal injury cases, Festschrift to Jan Kleineman], Jure Förlag 2021, p. 169 f. Cf. NJA 2024 p. 369 “Flyttstädningen” [End-of-tenancy cleaning].

³⁰ Cf. *the polluter pays principle*, see *i.a.* Sandvik, Björn, Miljöskadeansvar [Environmental Liability], Åbo Akademis Förlag 2002, p. 35 f. and NJA 2012 p. 125. For a critical discussion of the shortcomings of the current legal situation, see Schultz, Mårten, and Öberg, Mattias, *op.cit.*, *i.a.* p. 251 ff.

³¹ Cf. also difficulties in assessing damage situations that occur long after a harmful impact.

³² Cf. *the floodgate argument*; excessive claims for damages are undesirable. One example is the development in the United States, with extensive damages and expensive insurance premiums.

³³ Cf. the so-called *bath tub argument*; why is someone, who is injured at home in the bathtub, not entitled to compensation?

³⁴ This may involve, for example, general guidelines and controls.

³⁵ Cf. the Supreme Court's grounds for judgment in NJA 2023 p. 916 paras. 18–21.

³⁶ Examples of this type of compensation can be found at state level in the United States, *e.g.* in cases of asbestos exposure. It has proven difficult to assess the damage, and case law vary. See also Hannerstål, Carolina, Risk som skada, En diskussion om ersättning av förhöjda risker i svensk skadeståndsrätt [Risk as damage: A discussion of compensation for increased risks in Swedish tort law], thesis, Department of Law, Stockholm University, 2023, pp. 35 ff. Whether damage in the form of risk of future damage should be considered actual damage or non-pecuniary damage is open to debate. Cf. the doctrine of “loss of chance”, which has attracted greater interest in other legal systems, including in relation to medical malpractice. For a discussion, see Bo von Eyben, Erstatning for “loss of chance”, Patient- och läkemedelsförsäkringarna vid ett vägskäl, Vänbok till Carl E. Sturkell [Compensation for “loss of chance”, Patient and medical insurance at a crossroads, Festschrift for Carl E. Sturkell], 1996, p. 79 ff. Schultz, Mårten, and Öberg, Mattias, *op.cit.*, JT 2023–24, p. 244 ff. and Hannerstål, Carolina, *op.cit.*, *i.a.* p. 30 ff. and 35 ff.

³⁷ The legality aspect is, of course, also central, but in tort law the legislator has left considerable discretion to the courts.

2. The Courts' Assessment

2.1 The District Court – A New Form of Personal Injury

The District Court³⁸ agrees with the plaintiffs, finding a medical link between high PFAS levels in the blood and certain health problems. The measured levels of PFAS in the plaintiffs' bodies represent a permanent change and deterioration resulting in reduced ability to compensate for stress and increased susceptibility to the harmful effects of other environmental influences. The plaintiffs' bodies and bodily functions are in a worse condition than they would have been if they had not been exposed to PFAS. According to the District Court, this is a defective condition, *i.e.* physical damage through increased health risks and a deterioration of bodily functions. The plaintiffs have thus suffered *personal injury* in the form of high PFAS levels in their blood, entailing *increased health risks* and *physical changes* and *deterioration* of the body.

It was further argued in the case that the justified concern for ill health and a worsened health and life prognosis, which each of the complainants suffered as a result of the contamination, constituted personal injury. However, the District Court holds that it is not proven that any such compensable personal injury has arisen as a result of the PFAS exposure.

By recognizing increased health risks alongside physical changes and deterioration, the District Court opens up for a new type of personal injury in the form of an increased risk of future harm.

2.2 The Court of Appeal – Traditional Personal Injury

The Court of Appeal³⁹ focuses on the effects of PFAS exposure. Like the District Court, the Court of Appeal acknowledges that the very high levels of PFAS measured in the blood of those affected constitute a bodily change but finds no evidence of deterioration. Each of the affected is at increased risk of negative health effects and diseases associated with PFAS exposure. However, an increased risk of future personal injury is not a medically ascertainable effect. At the individual level, it is not possible to determine the effects of PFAS exposure. It has not been shown that all individuals who have been exposed have experienced a *physically verifiable deterioration*. According to the Court of Appeal, it has therefore not been proven that the change caused by the presence of PFAS in the bodies of those affected constitutes *personal injury*.

The plaintiffs also claimed that the high levels of PFAS in their bodies constituted injury in the form of poisoning. The Court of Appeal holds that it is the effect of ingesting or inhaling toxic substances that constitutes personal injury, and such damage has not been proven.

The Court of Appeal takes a more traditional view. Personal injury requires a medically ascertainable effect or, in other words, a verifiable physical deterioration.

2.3 The Supreme Court – Traditional Personal Injury in New Application

2.3.1 Premises

The basis for the Supreme Court's review is that elevated levels of PFAS have been detected in the complainants' bodies as a result of contaminated drinking water supplied by Miljöteknik, and that this exposure places each of them at a higher risk – compared to unexposed individuals – of developing health problems and diseases associated with PFAS exposure.⁴⁰

The question of precedent is, in short, whether the complainants have suffered personal injury as a result of the elevated levels of PFAS in their blood.⁴¹

2.3.2 General Guidance

The general guidance is concise. Personal injury includes both physical and psychological defects.⁴² For a physical defect to exist, there must have been a *change* (*förändring*) to or within the body, and that change must objectively constitute a *deterioration* (*försämring*). The deterioration may be temporary or permanent. It can involve a visible external effect on the body, a medical condition or a reduced function in a bodily organ. A weakening of the body's immune system and increased susceptibility to disease are examples of such functional impairment.⁴³

*According to the Supreme Court, not every negative physical impact gives rise to liability for damages. An impact must be so significant (beaktansvärd) that it constitutes damage.*⁴⁴

2.3.3 Risk of Future Personal Injury

On the question of whether an *increased risk* of future defects – such as a disease – constitutes personal injury, the Supreme Court is clear. The answer is no.⁴⁵ Liability based on risk necessarily entails a reformulation of traditional concepts of damage, causation, and evidence. This would require a shift in tort law through case law with unpredictable consequences.⁴⁶

2.3.4 Assessment in the Individual Case – PFAS Damage

Overall, the Supreme Court finds that the evidence as a whole provides sufficient support for the conclusion that the contaminated drinking water has had a significant negative impact on the complainants' bodies. The *significant physical deterioration* manifested in the high PFAS levels in the blood of each of the complainants constitutes a physical defect in the form of *personal injury*.

³⁸ Blekinge District Court, judgment announced on 2021-04-13, case T 1530-16 *et al.* (NJA 2023 p. 916).

³⁹ Court of Appeal of Skåne and Blekinge, judgment delivered on 2022-12-20, case T 1665-21 (NJA 2023 p. 916).

⁴⁰ See the Supreme Court para. 7.

⁴¹ The Supreme Court para. 8. See also para. 28, regarding the issue in the individual case.

⁴² The Supreme Court para. 14.

⁴³ The Supreme Court para. 15.

⁴⁴ See the Supreme Court para. 16.

⁴⁵ The Supreme Court para. 23.

⁴⁶ See the Supreme Court para. 22 and further paras. 18–23.

2.3.5 Dissenting Opinion

One Justice dissents, although agreeing with the majority on the meaning of the concept of personal injury.⁴⁷ The divergence concerns the assessment of the individual case and the evidence presented.

The dissenting Justice agrees with the majority that a high level of PFAS in the blood constitutes a bodily change. If the negative effect consists solely of an increased risk of future disease or impaired bodily function, the requirement that the change objectively constitutes a deterioration of the body is not met.⁴⁸ (Even so far, the majority and the dissenting Justice appear to agree.) However, according to the dissenting Justice, it is not possible to draw any reliable conclusions from the evidence in this case about how PFAS affects the body of an individual. It cannot be established that a certain level of PFAS in the blood is regularly associated with such a significant deterioration of the body as is required for the change to constitute personal injury.⁴⁹

2.3.6 Conclusion

The ruling represents a certain broadening of the traditional concept of personal injury or its application, but perhaps not as far-reaching as it may seem at first glance. However, it is most likely that this expansion will need to be clarified in future rulings. The value of the *broadened application* is linked to the level of compensation, which is unclear. What is clear, though, is that a future risk of personal injury is not an injury in the legal sense.

The judgement is difficult to interpret, not least regarding the individual decision and the conclusions that can be drawn. Below, the concept of personal injury is analyzed in light of the ruling.

3. What Is Personal Injury?

3.1 Personal Injury Under the Product Liability Act

The PFAS case raises the issue of liability under the Swedish Product Liability Act. The Act is based on the *EU Product Liability Directive*⁵⁰ – which has recently been replaced by a new one.⁵¹ The aim is to create consistent product liability within the EU.⁵² Liability covers personal injury and such property damage as can simply be described as consumer damage, Section 1 of the Product Liability Act.⁵³

Neither the previous nor the new Product Liability Directive contains a precise definition of what constitutes personal injury.⁵⁴ This has been left to *national law* to determine.⁵⁵ According to the European Court of Justice the concept should be interpreted broadly to ensure that injured parties receive adequate and full compensation for the damage they suffer because of a defective product. In this context, the Supreme Court refers to several judgments from the Court of Justice of the European Union.⁵⁶ The interpretation should also be viewed in light of the *preventive effect* that product liability aims to achieve; there is a strong interest in avoiding harmful products from being distributed on the market.⁵⁷

No definition is provided in the Swedish preparatory works for the Product Liability Act either. Instead, this matter must be determined in legal practice.⁵⁸ In the PFAS case, the courts held that the concept of personal injury – which equally applies to the concept of property damages – should be given the same meaning as in *the Tort Liability Act*.⁵⁹ This is also a logical consequence of the Tort Liability Act being applicable, unless otherwise specifically provided or required by agreement or else determined by rules on damages in contractual relationships, Chapter 1, Section 1 of the

⁴⁷ Dissenting opinion para. 31.

⁴⁸ Dissenting opinion para. 32. According to the dissenting Justice, another view is less consistent with the premise that an increased risk of negative health effects occurring in the future is not in itself personal injury.

⁴⁹ Dissenting opinion, para. 33. On the assessment of evidence, see section 3.3.6 below.

⁵⁰ Council Directive (85/374/EEC) on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products. See also Government Bill, prop. 1990/91:197 Om produktskadelag [On a Product Liability Act].

⁵¹ Directive (2024/2853/EU) of the European Parliament and of the Council on liability for defective products. A government inquiry has been set up to implement the new rules in Swedish law, see Dir. 2024:127. (After the article was first published, a legislative proposal has been introduced in the official report SOU 2025:103 En ny produktansvarslag [A new Product Liability Act]).

⁵² Both directives are harmonization directives, although Member States have the option of choosing the level of protection in some respects.

⁵³ See also Government Bill, prop. 1990/91:197, p. 37. The new Product Liability Directive has been adapted to AI technology and covers also damage in the form of lost or corrupted data. The changes are not relevant to the PFAS case.

⁵⁴ According to Article 9 of the older directive, personal injury, including death, is covered. The new directive clarifies that this also includes “medically recognized damage to mental health”, Article 6. The recitals to the directive (21) further state: “In the interest of legal certainty, this Directive should clarify that personal injury includes medically recognized and medically certified damage to psychological health that affects the victim’s general state of health and could require therapy or medical treatment, taking into account, inter alia, the International Classification of Diseases of the World Health Organisation”.

⁵⁵ Personal injury law differs between national legislations and is often linked to social insurance and other compensation schemes of varying nature, complexity and financing in each country. It is therefore difficult to fully harmonize this area at EU level.

⁵⁶ The Supreme Court para. 11 refers to the judgments of the Court of Justice of the European Union in *Veedfald*, C-203/99, EU:C:2001:258, paras. 25–29, and *Boston Scientific Medizintechnik*, C-503/13 and C-504/13, EU:C:2015:148, paras. 46–47.

⁵⁷ Prop. 1990/91:197 p. 8 ff. Product liability has its origins in American tort law, where it remains highly significant both as a preventive and a remedial instrument.

⁵⁸ Prop. 1990/91:197 p. 37.

⁵⁹ The Supreme Court para. 12. With regard to the application of the concept of property damage, the Supreme Court refers to NJA 1996 p. 68 “Flänsämnen” (The Flange Blanks). The reference is interesting in itself, as in that case the court moved from a traditional physical concept of property damage (*cf.* physical defect) to a functional concept of property damage. *I.e.* damage due to lack of or reduced function. There is reason to return to this, see section 3.3.2 below.

Tort Liability Act. Similarly, compensation under the Product Liability Act, without any reference in the Act, is calculated in accordance with Chapter 5 of the Tort Liability Act.

The interpretation of the concept of personal injury is important also for no-fault insurances in the area of personal injury, including traffic injuries, medical injuries, occupational injuries and criminal injuries.⁶⁰ In other words, personal injury is a concept in tort law that applies to personal injury law as a whole.

Viewed broadly, personal injury and property damage are legal concepts governed by compensation law (*ersättningsrätt*).⁶¹ In insurance contract law, for example, there are terms and conditions that refer to personal injury. As is evident, insurance contract law is based on contracts. However, a scenario in which different insurance companies, in their contracts, have different basic definitions of what constitutes personal injury would create unnecessary confusion. Another issue is that it is entirely possible to specify deviations from the standard concept of personal injury in the insurance terms and conditions, if desired. The concept of personal injury also occurs in social insurance, notably in the form of occupational injury. According to the preparatory works for the Occupational Insurance Act, it is equivalent to personal injury in tort law.⁶²

Unless specific considerations within a particular area of law warrant a different approach, it is systematically sound to apply a uniform concept of personal injury across the field of compensation law. The subject is already complex as it is.

3.2 Personal Injury According to the Tort Liability Act

3.2.1 General Principles

The Tort Liability Act does not contain a definition of what is meant by personal injury.⁶³ Over the years, the concept has been addressed in various preparatory works. In addition, the legislator has left it to the courts to determine the limits of the concept of personal injury.⁶⁴

*The Tort Liability Act came into force in 1972,⁶⁵ but the final part of the reform, concerning personal injury provisions, was implemented a few years later. The Tort Liability Committee presented its report for legislation in SOU 1973:51 Skadestånd V, Skadestånd vid personskada [Tort Liability V, Tort Liability for Personal Injury].⁶⁶ This subsequently resulted in Government Bill 1975:12 Förslag till lag om ändring i skadeståndslagen (1972:207), m.m. [Proposal for an Act amending the Tort Liability Act, 1972:207, i.a.]. The legislative reform mainly concerned the provision on personal injury in Chapter 5 of the Tort Liability Act. Among later reforms, particular mention may be made of the report SOU 1995:33 Ersättning för ideell skada vid personskada [Compensation for Non-Pecuniary Loss in Cases of Personal Injury] and the Government Bill proposition 2000/01:68 Ersättning för ideell skada [Compensation for Non-Pecuniary Loss].⁶⁷ It is primarily the aforementioned preparatory works that are of interest for the interpretation of the concept of personal injury. When the Tort Liability Act was introduced, the term personal injury was adopted instead of the older designation bodily injury (*kroppsskada*). From a purely linguistic point of view, personal*

⁶⁰ The systems are based on liability for damages. Case law may admittedly be established in various forums, but there is a general endeavour to follow the basic principles of tort law in personal injury law. See also Carlsson, Mia, *Arbetskada – samspelet mellan skadestånd och andra ersättningsordningar* [Occupational injuries – the interaction between damages and other compensation schemes], Jure Förlag 2008 (hereinafter *Carlsson, Mia, Arbetskada, 2008*), pp. 162 ff., 165 ff. and 181 ff. and also, *i.a.*, pp. 52 ff., 84 ff. and 96 ff.

⁶¹ Compensation law, as understood in the Swedish legal context, encompasses tort law, social security law, and insurance law. See Carlsson, Mia, *op. cit.* and Roos, Carl Martin, *Ersättningsrätt och ersättningsystem* [Compensation law and compensation systems], 1990, in particular pp. 16 f.

⁶² Prop. 1975/76:197 *Arbetskadeförsäkring* [the Occupational Injury Insurance, LAF], p. 92; now governed by the Social Insurance Code (SFB). See also Carlsson, Mia, *Arbetskada, 2008*, p. 166.

⁶³ Cf. Chapter 2, Section 1 of the Tort Liability Act.

⁶⁴ The Tort Liability Act can be largely regarded as a *framework law*. Not in the sense that its content is specified by other legislation, but the statutory provisions are open in form and supplemented by general principles of law. Tort law is thus an area where case law plays a central role in its development, see, for example, Carlsson, Mia, *Skadeståndslagen och principalansvaret – reglering av en ansvarsrelation, Skadeståndslagen 50 år* [The Tort Liability Act and vicarious liability – regulation of a liability relationship, The Tort Liability Act 50 years], Iustus förlag 2022, p. 48 ff.

⁶⁵ See Government Bill prop. 1972:5 *Skadeståndslag m.m.* [Tort Liability Act, etc.]. Older preparatory works include the official report SOU 1964:31 *Skadestånd II, Arbetsgivares och arbetstagares skadeståndsansvar m.m.* [Damages II, Employer and Employee Liability for Damages, etc.], which briefly mentions the concept of personal injury p. 80 f.

⁶⁶ The chair of the Tort Liability Committee was Erland Conradi, with Bertil Bengtsson and Carl Erik Lindahl as experts and Erland Strömbäck as secretary.

⁶⁷ The concept of personal injury is briefly summarized in, among other places, the official reports SOU 2009:96 *En utvidgad trafikförsäkring* [Extended motor insurance], p. 124 f. (which did not lead to legislation), SOU 2020:44 *Grundlagsskadestånd – ett rättighetsskydd för enskilda* [Constitutional damages – protection of individual rights], p. 93, SOU 2021:10 *Radiologiska skador – skadestånd, säkerheter, skadereglering* [Radiological injuries – damages, securities, regulation of compensation], p. 65 f. and 70, and SOU 2021:64 *Ersättning till brottsoffer* [Compensation to crime victims], p. 60. The definition that recurs is an abridged version of that given in the 1973 and 1975 preparatory works for the personal injury provisions of the Tort Liability Act.

*injury is also more appropriate in terms of the meaning of the concept. Further back in time, the expression violation of integrity (integritetskränkning) was used in relation to personal injury and property damage, a term that now brings to mind the protection of personal integrity.*⁶⁸

In the initial preparatory works for the Tort Liability Act⁶⁹, it was succinctly stated that the meaning of personal injury and property damage should generally be clear. In general, this is indeed the case. The concept of personal injury has not caused any major problems in its application. The Government Bill emphasizes the importance of ensuring that terms such as personal injury are given a precise and unequivocal meaning. The substance of personal injury has been shaped through case law, and the absence of a statutory definition does not appear to have caused any difficulties.⁷⁰ On the other hand, problems of evidence often arise concerning what caused an injury or how extensive it is, especially in the case of injuries that occur over a longer period of time or that heal over time.

3.2.2 Physical and Psychological Injuries

Personal injury refers to physical and psychological impairments of the human body. Physical (bodily) impairments include damage to the body's organs, e.g. broken bones, severed fingers, crushed limbs, knocked-out teeth, soft tissue wounds, brain damage, functional disorders, loss of organs or body substance, internal bleeding and disease states.⁷¹ Injuries resulting from poisoning through in-

gestion or inhalation of toxic substances, as well as those caused by radioactive materials, are unquestionably personal injuries.⁷² These types of injuries may manifest as destroyed tissue, internal medical disorders, and similar conditions.⁷³ Pain is also considered personal injury.⁷⁴ An injury may be caused by physical means, such as mechanical trauma, or result from other sources.⁷⁵

While physical harm can be accompanied by psychological effects, mental harm may also occur independently of any bodily injury. Psychological conditions that are a direct consequence of an harmful act are recognized as personal injury.⁷⁶ These may include, for example, the shock effect of a specific event, traumatic neurosis, or depression.⁷⁷ Damage to mental health through defamation, bullying, or other non-physical influences likewise falls under this category.⁷⁸ In the latter case, a distinction must be drawn between personal injury under Chapter 2, Section 1 and violation of personal integrity under Chapter 2, Section 3 of the Tort Liability Act;⁷⁹ nothing prevents damage of both types from occurring simultaneously.⁸⁰

An external factor is required for a condition to be at all recognized as an injury under tort law. Genetic diseases and congenital disabilities are not damage. Typically, it is a combination of individual predispositions and external influences that causes damage of some form and extent. We are all different individuals with different physical, mental, and genetic conditions. The same exposure does not result in identical harm for all individuals; on the contrary, the extent and nature of the damage differ from one person to an-

⁶⁸ See, for example, SOU 1964:31 p. 80, prop. 1972:5 pp. 451 and 628, prop. 1975:12 p. 20 and Karlgren, Hjalmar, Skadeståndsrätt [Tort Law], 5th ed., 1972, p. 28. The concept originates from Ussing, Henry, see *i.a.* Erstatningsret [Tort Law], 1962, p. 26 ff. See also Chamberlain, Johanna, Skadeståndslagens begrepp och utveckling i praxis – exemplet integritetskränkningar, Skadeståndslagen 50 år [Concepts of the Tort Liability Act and Their Development in Case Law – The Example of Infringements of Personal Integrity, The Tort Liability Act 50 years], 2022.

⁶⁹ SOU 1963:33 Skadestånd I, Allmänna bestämmelser om föräldrars och barns skadeståndsansvar [Damages I, General provisions on the liability of parents and children for damages], p. 31. See also prop. 1972:5 p. 576.

⁷⁰ Prop. 1972:5 p. 576. See also prop. 1975:12 p. 145.

⁷¹ See SOU 1964:31 p. 80, prop. 1972:5 p. 576, SOU 1973:51 p. 36 f., prop. 1975:12 p. 20, SOU 1995:33 p. 61, prop. 2000/2001:68 p. 17 f., Carlsson, Mia, Arbetsskada, 2008, p. 181 ff., Hellner, Jan, and Radetzki, Marcus, Skadeståndsrätt [Tort Law], 12th ed., 2023, p. 98 (*hereinafter* Radetzki/Hellner, *Skadeståndsrätt 2023*), and Strömbäck, Erland, Skadeståndslagen en kommentar [The Tort Liability Act: A Commentary], Juno 5:1.3. See also the Supreme Court's grounds for judgment in the PFAS case, para. 14. See, in addition, Persson, Ulf, Skada och värde [Damage and Value], 1953, p. 6 and 18.

⁷² SOU 1964:31 p. 80, prop. 1972:5 p. 576, SOU 1973:51 p. 36, prop. 1975:12 p. 20, Radetzki/Hellner, *Skadeståndsrätt 2023*, p. 98, and Strömbäck, Erland, *op.cit.*, Juno 5:1.3.

⁷³ Linguistically, the term 'poisoning' may refer both to the act of causing harm and to the resulting condition. See comments in the PFAS case, the Supreme Court para. 14 and the Court of Appeal's grounds for judgment.

⁷⁴ SOU 1977:36 Ersättning för brottsskador [Compensation for Criminal Injuries], preparatory work for previous legislation, p. 120, SOU 1995:33 p. 61 and Strömbäck, Erland, *op.cit.*, Juno 5:1.3.

⁷⁵ See SOU 1964:31 p. 80, prop. 1972:5 p. 576, SOU 1973:51 p. 36, prop. 1975:12 p. 20, SOU 1995:33 p. 61, Carlsson, Mia, Arbetsskada, 2008, p. 184, Radetzki/Hellner, *Skadeståndsrätt 2023*, and Strömbäck, Erland, *op.cit.*, Juno 5:1.3.

⁷⁶ See, for example, the Supreme Court's grounds for judgment in the PFAS case, para. 14. In the case of mental suffering in the form of pain and suffering, the damage must be a proximate and foreseeable consequence of the conduct and affect the injured party as a direct consequence of the harmful act, NJA 2022 p. 14 para. 8.

⁷⁷ Cf. NJA 1971 p. 78, chockskada [shock injury].

⁷⁸ SOU 1973:51 p. 36 f., prop. 1975:12 p. 20, SOU 1995:33 p. 61 f., prop. 2000/2001:68 p. 19, Carlsson, Mia, Arbetsskada, 2008, p. 184, Hellborg, Sabina, Arbetsgivarens skadeståndsansvar vid arbetsplatsmobbing, Skadeståndslagen 50 år [Vicarious liability for workplace bullying, The Tort Liability Act 50 years], 2022, p. 139 ff., and Strömbäck, Erland, *op.cit.*, Juno 5:1.3.

⁷⁹ See also damage in the form of the recently introduced *special compensation for close relatives*, Chapter 2, Section 3a of the Tort Liability Act. See Schultz, Mårten, Ideell skada i skadeståndslagen: särskilt om särskild anhörigersättning, Skadeståndslagen 50 år [Non-pecuniary damage in the Tort Liability Act: especially regarding special compensation for close relatives, The Tort Liability Act 50 years], 2022, p. 241 ff.

⁸⁰ For the distinction between personal injury and violation of personal integrity, and its significance, see Friberg, Sandra, Kränkningersättning. Skadestånd för kränkning genom brott [Compensation for violation. Damages for violation of personal integrity through crime], 2010, *i.a.*, pp. 61 ff., 292, 353, 359 f., 368 ff., 372 f. and 395 ff.

other. As is established, the injured person must *be accepted as he or she is*.⁸¹ In accordance with the principle of *full compensation*, it is also the individual injury that is determined and compensated – no more and no less. However, for practical or ethical reasons, it may sometimes be necessary to rely on standardized compensation models.⁸²

Tort law largely deals with *accidental injuries* and other more or less sudden injuries, but damages also include various types of disease.⁸³ Diseases include all atypical physical and mental states not related to the normal life process.⁸⁴ These are classified as damage if caused by an external factor, such as pain and restricted movement that are not merely temporary. A distinction must be made between medical conditions and purely social issues. For instance, alcoholism is a disease, whereas occasional alcohol consumption resulting in physical symptoms is not.⁸⁵

An injury may be of a temporary nature and heal, or lasting and lead to disability.⁸⁶ That the boundaries and duration of personal injury are fluid is evident from the very language used – terms such as *falling ill* (*insjukna*) and *recovering* (*tillfriskna*) imply a process rather than a fixed state. There has been surprisingly little discourse in tort law regarding the recognition of specific diseases as personal injury. Possibly, as a result of the requirement that liability in tort must be linked to a specific cause of harm, diffuse medical conditions can be difficult to establish causation for, which in turn makes them less likely to result in claims for damages – at least when the Tort Liability Act serves as the legal basis. In occupational injury insurance, however, this is a major topic. Personal injury caused by environmental factors may become more prominent in mainstream tort law, as scientific evidence evolves, and public interest intensifies.

*We often talk about ill health or health problems in general terms as a negative condition, or of health in a positive sense.*⁸⁷ In 1948, the World Health Organisation (WHO) defined health as “a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity”; a state that could be considered almost utopian. According to the Swedish Academy’s dictionary *ill health is a state of disease or weakened bodily functions. Disease is defined as a disturbance in the functions of an organism, often due to attack by bacteria or viruses. Health and ill health are concepts applied across various disciplines, such as environmental medicine, occupational medicine and social law. From today’s perspective, ill health is not black and white, but rather multifaceted in its meaning.*⁸⁸ Quite often, an unhealthy lifestyle may lead to some form of medical condition. Ill health is then something that is controlled by the individual’s own actions.

It is also personal injury when someone dies as a result of a harmful act. Death may occur immediately or after some time.⁸⁹ Even close relatives of the deceased are entitled to compensation for the personal injury they suffer as a result of the death, Chapter 5, Section 2, Paragraph 1, Item 3 of the Tort Liability Act.⁹⁰

3.2.3 How Can a Personal Injury Be Evident and Where Do We Draw the Line?

According to the preparatory works, psychological distress is considered personal injury if there is a *medically ascertainable effect* (*medicinskt påvisbar effect*).⁹¹ This requires both a certain degree of delimitation (*i.e.* assessment) and concretisation (*i.e.* evidence). What is required is influenced by the circumstances.

The boundary between medical effects and those of a social, aesthetic, or emotional nature is often indistinct. How should cosmetic procedures that have not met expectations be assessed? Is

⁸¹ In occupational injury insurance, the same principle applies as everyone is insured in their current condition. In American law, this is referred to as “the thin skull rule”, after a court case. The principle is complex and difficult to apply; what is *special susceptibility* (vulnerability) and what is a *competing cause*, and how can the difference be determined in concrete terms? See Carlsson, Mia, *Arbetskada*, 2008, p. 395 ff. Cf. e.g. RÅ 1998 ref. 8 and RÅ 2010 ref. 101.

⁸² See prop. 1975:12, pp. 99, 101 f. and 111, and Strömbäck, Erland, *Faktiska förlusten blev personskaderättens ledstjärna, Skadeståndslagen 50 år* [Actual loss became the guiding principle of personal injury law, The Tort Liability Act 50 years], 2022, p. 295. Cf. discussion Andersson, Håkan, *Ersättningsproblem i skadeståndsrätten, Skadeståndsrättsliga utvecklingslinjer, Bok III, 2017* [Compensation problems in tort law, Developments in Tort Law, Book III, 2017], p. 448 ff. (*hereinafter Andersson, Håkan, Ersättningsproblem i skadeståndsrätten*), 2017. See also, Ekstedt, Olle, *Ideellt skadestånd för personskada* [Non-Pecuniary Damages for Personal Injury], 1977, p. 90 ff.

⁸³ In occupational injury insurance, a distinction is made between accidental injuries and other harmful effects (*i.e.* all injuries that are not accidents), Chapter 39, Section 3 of the Social Insurance Code and Section 3 of the Occupational Injury Insurance (TFA, governed by collective labour agreement).

⁸⁴ Problems associated with pregnancy – such as pelvic pain – have not fit into the system, as pregnancy is not an abnormal condition and is not defined as a disease. Pregnancy problems have therefore not been eligible for sickness benefits under social insurance; this can certainly be described as conceptual jurisprudence. Pregnant women may now be entitled to ‘pregnancy benefits’.

⁸⁵ See, for example, Carlsson, Mia, *Arbetskada*, 2008, p. 184 f., with reference to work-related injuries, and Källström, Kent, *Alkoholpolitik och arbetsrätt* [Alcohol policy and labour law], 1992, p. 33 ff. and p. 69, *i.a.* The concept of disease has particular relevance in general health insurance.

⁸⁶ Cf. medical and economic disability.

⁸⁷ On health as the absence of something negative, *i.e.* disease, see, *i.a.*, Andersson, Håkan, *Ersättningsproblem i skadeståndsrätten*, 2017, p. 471 f. with further references.

⁸⁸ For a discussion, see, *i.a.*, Schultz, Mårten, and Öberg, Mattias, *op.cit.*, pp. 252 ff. With reference to *environmental health risk* assessment, they refer to Risk Assessment Terminology according to WHO-IPCS from 2004: A change in the morphology, physiology, growth, development, reproduction, or lifespan of an organism, system, or (sub)population that results in a reduction in functional capacity, a diminished ability to cope with additional stress, or an increased sensitivity to other factors, *ibid.* p. 255 f.

⁸⁹ SOU 1973:51 p. 36 and prop. 1975:12 p. 20.

⁹⁰ See NJA 1993 p. 41 I and II and prop. 2000/2001:68 p. 30 ff. Compensation is also paid when a close relative has suffered life-threatening injury as a result of intentional violence and the condition has persisted for a certain period of time, see NJA 2006 p. 181 and NJA 2021 p. 746.

⁹¹ SOU 1995:33 p. 61, prop. 2000/2001:68 p. 17 f. and NJA 2022 p. 14 p. 9. See likewise Strömbäck, Erland, *op.cit.*, Juno 5:1.3.

weight gain a personal injury, and if so, where is the line drawn for such an injury? For an effect to be medically ascertainable, common emotional expressions such as the natural anger, fear, anxiety or grief that often accompany an injury are not sufficient.⁹² The distress must reach a certain substantial level. There is often a *sliding scale* between what is a pure emotion and a psychological effect, e.g. from anxiety to anguish, from low mood to depression or from fear to panic disorder. In committee case practice, conditions of insomnia and nightmares have been accepted as personal injuries, reflecting a generous interpretation of the concept.⁹³

Some conditions are also more *objective in nature*, such as a broken bone or a cancerous tumour, while others, such as pain and anxiety, are inherently more *subjective*.⁹⁴ As previously noted, it is the individual injury that must be assessed, considered the injured party's particular vulnerability.⁹⁵

Psychological injury cannot be confirmed in the same concrete way as most physical injuries. A physician may diagnose the condition using questionnaires, interviews, or other methods, but a medical effect may also be evident from the fact that the individual is on sick leave. Sick leave is not an unconditional requirement, however; symptoms may manifest in other ways.⁹⁶ The nature of the harmful act and the vulnerability of the victim may also reduce the *requirement for investigation* of the injury.⁹⁷ Systematically, a distinction must be made between the concept of injury itself and the evidentiary requirements for establishing a proven injury.

During an intervention, a police officer was bitten on the hand while the apprehended person claimed to be HIV-positive, NJA 1990 p. 186. Although the officer was not on sick leave, her anxiety was so severe that she was referred for psychotherapeutic treatment. The severe psychological pressure suffered by the police officer constituted suffering that justified compensation for pain and suffering, i.e. compensation for personal injury. Since a definitive diagnosis of possible HIV infection was not available until six months later, the psychological distress was considered to have persisted for at least that duration, and compensation was awarded accordingly.

Proving psychological injury in children can be particularly challenging in practice, as children do not work and are therefore not on sick leave and may not seek psychological help or be able to articulate their symptoms in the same way as adults. This does not necessarily mean that children's prospects of compensation are more limited. In many cases, based on generally accepted assumptions, certain psychological consequences may be presumed to follow from a harmful event – at least when the act is of a serious nature.⁹⁸ Cause and effect are linked.

According to the Supreme Court, the lack of medical investigation in cases of sexual abuse of children does not prevent compensation for pain and suffering where medical problems such as depression, anxiety, or sleep disorders are assumed to have arisen.⁹⁹ Compensation may instead be determined by standardized schemes. However, such schemes should not be applied if an investigation allows for individualized assessment, or where the circumstances render standardized rates inappropriate – for example, in cases involving a large number of assaults over an extended period, NJA 2005 p. 919. In NJA 2022 p. 14, the mother of a minor child had taken the child to an area controlled by the Islamic State, where armed conflict was ongoing, thus withholding the child from the father. The Supreme Court held that personal injury requires psychological suffering to constitute a medically ascertainable effect. Based on the circumstances, such distress was presumed in both the child and the father, without further investigation.

In the event of death, certain personal injuries are *presumed* in relation to close relatives – as a foreseeable (adequate) consequence – and compensation is awarded according to standards developed in case law.¹⁰⁰ This facilitates access to compensation. Ultimately, it is also possible to reasonably estimate an injury that is difficult to prove, in accordance with Chapter 35, Section 5 of the Code of Judicial Procedure (rättegångsbalken, 1942:740).¹⁰¹ This applies where the occurrence of injury is established, but its extent is difficult to determine.¹⁰²

The fact that the preparatory works require a medically ascertainable effect (a proven defect condition) only in relation to psycholo-

⁹² SOU 1995:33 p. 61, prop. 2000/2001:68 p. 17 f. and NJA 2022 p. 14 p. 9. See likewise Strömbäck, Erland, *op.cit.*, Juno 5:1.3. See also SOU 1977:36 p. 120 and SOU 1992:84 Ersättning för kränkning genom brott [Compensation for violation through crime] p. 97, Carlsson, Mia, *Arbets-skada*, 2008, p. 183 and Friberg, Sandra, *op.cit.*, 2010, p. 380 f. and 395.

⁹³ This has applied to compensation for criminal injury, see Strömbäck, Erland, *op.cit.*, Juno 5:1.3.

⁹⁴ Carlsson, Mia, *Arbets-skada*, 2008, p. 183.

⁹⁵ In the case of compensation to close relatives, it is possible to present evidence that the individual damage is more extensive than the damage resulting from the presumption, and which is compensated via standard rates. Cf. further the balance between the *vulnerability threshold* and the *harm requirement*, see, for example, RÅ 2007 ref. 42 and Carlsson, Mia, *Arbets-skada*, 2008, p. 395 ff. and 410

⁹⁶ SOU 1995:33 p. 61 and prop. 2000/2001:68 p. 18. Cf. also Andersson, Håkan, *Ersättningsproblem i skadeståndsrätten*, 2017, p. 632 ff.

⁹⁷ NJA 2022 p. 14 p. 10, see below. The requirements for the strength of evidence can vary depending on the possibilities for a party to secure evidence, cf. NJA 2024 p. 369.

⁹⁸ See, for example, Friberg, Sandra, *op.cit.*, 2010, p. 380 f. Similar problems exist in relation to older people and other groups who are not in working life.

⁹⁹ See SOU 1992:84 p. 217 f.

¹⁰⁰ Chapter 5, Section 2, Paragraph 1, Item 3 of the Tort Liability Act. Mental distress does not normally need to be substantiated by a medical certificate; see, for example, prop. 2000/2001:68 p. 30 ff. and NJA 2000 p. 521. For a discussion, cf. Andersson, Håkan, *Ersättningsproblem i skadeståndsrätten*, 2017, p. 459 f. and 464 ff., see also p. 489 f.

¹⁰¹ If it is a question of estimating damage that has occurred and full proof of the damage cannot be provided at all or only with difficulty, the court may estimate the damage at a reasonable amount. This may also be done if the evidence can be assumed to entail costs or inconvenience that are not reasonably proportionate to the size of the damage and the damages claimed relate to a smaller amount, Chapter 35, Section 5 of the Code of Judicial Procedure.

¹⁰² As a starting point, the injured party shall present the investigation that can reasonably be carried out, cf. NJA 2024 p. 369 and NJA 2005 p. 180. The legal provision seems to be applied less frequently in cases of personal injury.

gical injury should not be taken as an indication that such a requirement does not generally apply to physical injury as well. On the contrary, the examples cited in the preparatory works and legal doctrine – flesh wounds, internal bleeding and knocked-out teeth, etc. – clearly refers to medical effects. The issue has simply not been perceived as particularly complex in that context, nor has it been the subject of significant case law. What constitutes such an effect remains open to interpretation. It need not be an absolute medical requirement; as mentioned, rather a requirement for a certain *substantial level* of physical or psychological discomfort. What is a “medical” effect and what is required for the effect to be considered “proven”?

So-called *symptom-based diagnoses* have posed evidentiary challenges. Whiplash injury, for instance, is a recognized condition, but it is difficult to determine who has actually been affected. To support the assessment, practical *methods* have been developed – such as requiring that certain initial symptoms appear in close temporal connection with the accident.¹⁰³ If the conditions for establishing causation are met, preschool staff may have tinnitus recognized as an occupational injury, even though such symptoms are difficult to verify objectively; to give another example.¹⁰⁴

Claims concerning medical effects that *lack scientific support* present a different kind of problem. There is no consistent scientific evidence for the existence of conditions such as electrical hypersensitivity. A distinction must be made between situations where no scientific evidence exists for a particular type of harm, and those where harm may exist, but it is not possible to determine with certainty who has been affected or to what extent. Evidentiary difficulties may also arise from a lack of research, which complicates the assessment.

Some delimitation issues relate to the principle that third-party damages are not compensable – for example, harm suffered by relatives of an injured or deceased person, or the legal status of unborn children. As is well known, legal developments have introduced compensation for close relatives (anhörigersättning) and special compensation for close relatives (särskild anhörigersättning), Chapter 2, Section 3a and Chapter 5, Sections 2 and 6a of the Tort Liability Act.¹⁰⁵ However, an unborn child, who died when the expectant mother was killed in a traffic accident, have not given rise to such compensation.¹⁰⁶ If a person contracts a disease at work that qualifies for occupational injury compensation, but subsequently infects their partner, the latter falls outside the scope of protection. Similarly, if a woman is injured at work and her unborn child suffers harm in utero, the child does not, under Swedish law, have an explicit right to compensation after birth.¹⁰⁷ This issue has not been the subject of significant legal discussion.

It concerns the scope of persons entitled to tort compensation and is closely linked to the criterion of adequate causation. Among those affected by PFAS contamination are children born with PFAS in their bodies and exposed through breast milk – circumstances that may prompt further legal debate.

Compensation is contingent upon the existence of damage. A low threshold for what constitutes personal injury does not necessarily entail far-reaching consequences. In addition, most personal injuries are covered by insurance, meaning that the financial burden is typically distributed across a collective. Exceptions include injuries resulting from criminal acts or cases where the tortfeasor is uninsured. Nonetheless, a surge in injuries may still impose a significant economic burden, even within an insurance-based system.

3.3 Personal Injury After the PFAS Case – Is There Any Difference?

3.3.1 What Does the Supreme Court Consider to Be Personal Injury?

In the PFAS case, the Supreme Court rules in principle on what constitutes personal injury in the form of a physical defect.¹⁰⁸ The reasoning is tightly framed and has the character of a *definition*, para. 15. Two fundamental criteria must be met. It is required that 1) a *change (förändring)* has occurred on or within the body, and the change must 2) objectively constitute a *deterioration (försämring)*. The Court emphasized that such deterioration may be either temporary or permanent. Accordingly, both injuries that heal and those that are lasting or chronic fall within the scope of personal injury.

The judgment does not mention any requirement for a medically ascertainable effect, as in the reasoning of the Court of Appeal. However, it does provide concrete examples of what may constitute impairment. This includes a visible external effect on the body, a disease state, or reduced function in a bodily organ. As examples of *reduced function* in an organ the Court refer to a weakened immune system and increased susceptibility to disease. These examples relate to the PFAS case. According to research in the field, PFAS exposure may lead to such outcomes, including a slightly elevated risk of certain diseases associated with PFAS accumulation in the human body.¹⁰⁹

3.3.2 Reduced Functionality as Damage

A digression is in order. Earlier in the judgment, the Supreme Court refers to NJA 1996 p. 68 “Flänsämnen” (The Flange Blanks).¹¹⁰ The case addresses the concept of property damage and its applic-

¹⁰³ See RÅ 2010 ref. 36 (accident at work) and the Whiplash Commission’s final report, 2005.

¹⁰⁴ Preschool staff are at increased risk of developing tinnitus. In certain situations, AFA Insurance company (administrating TFA) has approved tinnitus as an occupational injury. As always, the circumstances of each individual case are considered in the assessment.

¹⁰⁵ Compensation for close relatives is paid as compensation for personal injury, while special compensation for close relatives is paid as purely non-pecuniary damages (bereavement damages), see Schultz, Mårten, *op.cit.*, Skadeståndslagen 50 år, 2022, p. 246 ff.

¹⁰⁶ See NJA 2006 p. 738.

¹⁰⁷ Cf. the rules on occupational injuries.

¹⁰⁸ For an analysis of the Supreme Court’s reasoning and its interpretation of general versus individual considerations, see Svante O. Johansson, Petter Asp and Eric M. Runesson, Hur man kan förstå prejudikat från Högsta domstolen [How to understand precedents from the Supreme Court], JT 2023–24, p. 868 ff.

¹⁰⁹ See section 1.1 above, on the risks of personal injury.

¹¹⁰ See the Supreme Court para. 12. This is, incidentally, the only Supreme Court case referred to in the precedent.

ation in relation to the Tort Liability Act and product liability. According to the preparatory works of the Tort Liability Act, property damage is defined as harm directly inflicted on physical objects through physical means.¹¹¹ In insurance company practice, property damage had come to denote physical deterioration.¹¹² In the 1996 case, the Supreme Court acknowledged that this physical definition had been subject to criticism in legal scholarship, where an alternative approach based on functional impairment had been proposed.¹¹³ The Court took this critique into account and held that damage may also arise where property has lost its function or where its functionality has been significantly reduced.

The material used in the manufacture of the flange blanks had been substituted, resulting in reduced resistance to fatigue damage. The capsules into which the flanges were mounted remained usable, they required more frequent inspection and had a shorter service life compared to fault-free capsules. The remaining capsules were discarded. According to the Court, this must be understood that the manufacturer had assessed the capsules as unfit for intended purpose – primarily due to their reduced lifespan and increased inspection and maintenance costs. The capsules thus had such impaired functionality that property damage had occurred.

It is reasonable to conclude that the Supreme Court was inspired by the functional concept of property damage when articulating the notion of personal injury in the PFAS case – and there is nothing wrong with that, given how it is expressed.

3.3.3 A Lower Threshold for Personal Injury

Returning to the Supreme Court's assessment in the PFAS case. By clarifying the concept of personal injury in the way it has, the Court proceeds to narrow its scope, para. 16.

It is in the nature of things, that not every bodily impact perceived as negative can give rise to liability in damages; the impact must be of such significance that it can properly be regarded as an injury. Minor and transient bodily reactions are normally not sufficiently significant to constitute personal injury. As the Court notes, such limited “injuries” are unlikely to result in compensable consequences, and the issue is therefore of lesser importance – a view that is easy to agree with.¹¹⁴ It is likely that a natural filtering already occurs with respect to the heads of damage; when, in fact, does a compensable claim for damages arise at all?¹¹⁵ At the same time, the lower threshold acquires tangible significance in certain specific situations – for instance, in view of the outcome in the PFAS case. More on that below.¹¹⁶

3.3.4 PFAS Exposure as Personal Injury – How Can the Ruling Be Understood?

When the Supreme Court hands down its ruling in the specific case, there is no reference to the statements and examples provided regarding functional impairment of bodily organs found in the general guidelines. Such a reference could have been appropriate, particularly given how clearly those statements evoke the effects of PFAS exposure.

The Court reports the specific PFAS levels measured in the complainants – several of which rank among the highest recorded globally – and finds that, overall, the investigation provides sufficient support for the conclusion that the contaminated drinking water has had a significant negative impact on the complainants' bodies. It determines that the significant physical deterioration ‘manifested in the high levels of PFAS in the blood’ constitutes a physical defect in the form of personal injury.¹¹⁷

The Supreme Court thus appears to re-evaluate part of the increased risk of future disease, treating it not as a prospective harm but as an *existing effect*. While a weakened immune system or increased susceptibility to illness cannot be directly measured in an individual, such effects are inferred from the highly elevated PFAS levels; the harm is “manifested” by – or, if one prefers, ascertainable through – those levels. Scientific research offers (some) support for the conclusion that a negative physiological effect is already present in typical cases.¹¹⁸ By all indications, the bodies of those affected are generally more fragile and less resilient than before; they are functionally impaired and less resistant. This, of course, represents a significantly more limited impact than the onset of a possible future disease.¹¹⁹

The relevant question is not the likelihood of any specific future disease. Rather, it concerns the probability that a certain weakening of the body – a significant deterioration – has already occurred, thereby constituting personal injury. In other words, the assessment hinges on the overall risk profile associated with PFAS exposure and its link to various forms of ill health.

Although current research on the association between PFAS exposure and specific disease risks remains inconclusive, and further studies are warranted, the PFAS levels measured in the affected individuals in this case are exceptionally high. The impression is that this has influenced the legal assessment, effectively shortening the path to establishing personal injury. In other words, given the elevated levels, a certain degree of uncertainty regarding the effects of PFAS may be tolerated. The assessment pertains solely to the

¹¹¹ Prop. 1972:5 p. 579. See also NJA 1990 p. 80 “Den dräktiga tiken” [The pregnant female dog].

¹¹² In this context, the Supreme Court refers to Skadeförsäkringens Villkorsnämnd [Committee on Non-Life Insurance Conditions] statement 7/1987, Ullman, Harald, Sakskada eller ren förmögenhetsskada – var går gränsen i försäkringsrätten [Property Damage or Pure Economic Loss – Where Is the Boundary in Insurance Law], NFT 3/1989 p. 189 ff., and Hellner, Jan, Försäkringsrätt [Insurance Law], 2nd ed., 1965, p. 99.

¹¹³ Reference is made to Kleineman, Jan, Ren förmögenhetsskada [Pure Financial Loss], 1987, p. 153 ff. and Begreppsbildningen och den skadeståndsrättsliga analysen [Concept Formation and Analysis under Tort Law], JT 1993–94, p. 727 ff., Roos, Carl Martin, *op.cit.* 1990, p. 16 f., Lagerström, Peter, and Roos, Carl Martin, Företagsförsäkring [Business Insurance], 1991, p. 157 and, further on, to Skadeförsäkringens Villkorsnämnd 72/1985 and 84/1986.

¹¹⁴ *Cf.* above regarding the requirement for a medical effect.

¹¹⁵ The normal practice is for the plaintiff to claim damages (*i.e.* an action for performance), not merely a determination that damage has occurred – as in the PFAS case.

¹¹⁶ See section 3.3.7 below for further legal developments and the need to clarify the limits of what qualifies as personal injury. Although many people probably have some level of PFAS in their system, this does not automatically amount to personal injury.

¹¹⁷ The Supreme Court para. 31.

¹¹⁸ *Cf.* cause and effect.

¹¹⁹ Bratt, Stina, refers to legally typified damage in the form of ‘PFAS damages’, *op.cit.*, JP Infonet, 2024-01-17.

case at hand and does not purport to establish a general causal link between PFAS and specific medical conditions.

The reasoning underlying the specific ruling could have been more clearly articulated. Perhaps the Supreme Court, with its terse wording, aimed to avoid distorting the concept of personal injury? Perhaps the Court sought to avoid prejudging the issue of compensation – the consequences of the injury – which was not under review in the present case? Perhaps this was as far as the Court’s members were able to reach consensus?

3.3.5 The Concept of Personal Injury – A Variety of Synonyms

Expressions such as defective condition, medical effect, or negative impact (physical or psychological) are used in preparatory works, legal doctrine and case law to capture *the essence of the concept of personal injury*. In the PFAS judgment and throughout the proceedings, personal injury is described as a bodily *change* (förändring) involving a *deterioration* (försämring) – a novel formulation in this context. Nevertheless, the same two core functions appear to be consistently invoked in all the expressions:

1) Something must have occurred in the body or psyche – that is, a change, a condition, an effect, or an impact.

2) The change must, objectively speaking, be adverse – that is, an impairment, a deterioration, a defect, something physically or psychologically negative, or medical.

The term ‘medical’ may stand out. Even within medical discourse, it likely denotes something negative – such as illness or impaired health. Linguistically, medical is linked to an extrajudicial norm governed by medical science and healthcare, whereas terms like impairment appear to reflect an objective and legally grounded assessment. The question is whether there is any difference? In the vast majority of cases, personal injury can be described in medical terms, or, at the very least, as some form of health impairment.¹²⁰

I do not interpret the PFAS case as introducing any factual redefinition of the concept of personal injury. The variation in terminology and choice of words are practically conditioned or of purely pedagogical nature. We do not have a new legal concept of personal injury.

Without altering the substantive meaning, the Supreme Court has articulated a definition:

Personal injury refers to a change involving a (significant) deterioration.¹²¹

3.3.6 Standard of Proof in Personal Injury Cases – What Applies?

If we, in addition to the two basic functions – change and deterioration – also include phrasing such as verified or ascertainable, then we are approaching what is required to establish personal injury; that is, to prove a change and a deterioration. This is of interest for the application of the concept of personal injury.¹²²

The question of whether an elevated level of a particular substance has caused a negative effect on the body – thereby constituting personal injury – involves both a factual assessment (evidence) and a legal evaluation (qualification of law). Is there any kind of negative effect? How can it be demonstrated? Does the effect qualify as personal injury – is it significant? These are questions informed by our understanding of injury risks.

The precedent does not explicitly address the standard of proof applicable to personal injury. While the topic merits a separate article, a few reflections are offered here. The default position in civil law is full proof – that is, substantiated evidence. Where causation is difficult to establish, case law permits a lower standard of proof; if the causal sequence presented by the claimant appears clearly more probable than the defendant’s alternative explanation, and is also probable in itself in light of the circumstances, this is sufficient to prove causation.¹²³ Case law also applies a lower standard of proof in demonstrating consequential damages in the form of loss of income.¹²⁴ The rationale is to ensure that the right to compensation does not become illusory.¹²⁵ The same consideration applies when the personal injury itself is difficult to prove.

In other areas of personal injury law, a lower standard of proof – based on preponderant reasons or preponderance of probability – is frequently applied.¹²⁶ For my part, I have long advocated a uniform standard of proof corresponding to a preponderance of probability for the entire – highly complex and intertwined – field of personal injury law.¹²⁷ This is particularly important in cases where the circumstances surrounding the injury are difficult to establish.

¹²⁰ Cf. discussion Andersson, Håkan, Ersättningsproblem i skadeståndsrätten, 2017, p. 442 ff.

¹²¹ See the Supreme Court ruling, paras. 15–16.

¹²² See section 3.2.3 above.

¹²³ See, for example, NJA 1977 p. 176, NJA 1981 p. 622, NJA 1982 p. 421, NJA 1991 p. 481, and Bengtsson, Bertil, Skadeståndslagen: en kommentar [The Tort Liability Act: A Commentary], Juno 1:1.5, and further Carlsson, Mia, Arbetsskada, 2008, p. 446 ff., and Radetzki/Hellner, Skadeståndsrätt 2023, p. 189 ff.

¹²⁴ See NJA 2007 p. 461 and Prop. 1975:12 p. 103, cf. also pp. 52 and 150. See also Carlsson, Mia, Arbetsskada, 2008, pp. 436 ff., 441 ff., and 455 ff. In social insurance, there is also a general requirement to prove the facts of the case. In addition, many personal injuries are handled by both social insurance and tort law – the injuries move, so to speak, through different insurance schemes.

¹²⁵ See NJA 1982 p. 421 and NJA 1991 p. 481.

¹²⁶ See Chapter 39, Section 3 of the Social Insurance Code, Section 3 the Occupational Injury Insurance (TFA), and Section 6 The Patient Injury Act (patientskadlagen, 1996:799).

¹²⁷ See Carlsson, Mia, Arbetsskada, 2008, Chapter 9, pp. 467 ff. In the assessment of damages for personal injury, the same factual circumstances may be relevant to multiple components of the claim – for instance, both the entitlement to compensation for loss of income and for pain and suffering. Applying different standards of proof to these various elements introduces unnecessary complexity into an already intricate materia of law. See Carlsson, Mia, Omprövning om igen – svårigheten att bestämma skadestånd vid personskada, Festskrift till Jan Kleineman [Reassessment again – the difficulty of determining damages in personal injury cases, Festschrift to Jan Kleineman], 2021, p. 182 ff., in particular p. 185 f.

In the PFAS case, the Supreme Court concluded that the investigation provided *sufficient* support for the claim that the drinking water had a significant negative impact on the complainants' bodies. This is hardly an articulation of a burden of proof.¹²⁸ However, it is clear that the evidentiary threshold for demonstrating the negative effect (deterioration) was set low. The state of research on PFAS-related harm remains uncertain. Even though the situation is exceptional – particularly in light of the very high PFAS levels – there are good grounds for assuming that in complex cases, *a reasonable standard of proof* is applied to avoid rendering the right to compensation illusory.¹²⁹

The standard of proof is, in essence, a reverse expression of how much uncertainty can be tolerated regarding a particular circumstance.¹³⁰ For personal injury law as a whole, the most appropriate standard is preponderance of probability. This approach yields the most materially accurate judgments and aligns with the compensatory purpose of the law. The fact that most personal injuries are covered by some form of insurance further supports this position. The burden of proof still remains with the injured party, and it is not the initial injury that is compensated, but rather its consequences.

3.3.7 Legal Development

It is likely that more claims for damages will arise due to various substances found in human bodies, primarily to be regarded as changes. What is required for a condition to be considered a deterioration in an objective sense – a negative effect – will be clarified through continued application of the law. This concerns both the nature of the substance (which substances are relevant) and its quantity (where is the threshold); what qualifies as a significant impairment?

The fact that the Supreme Court does not focus on concrete or measurable physical damage in its ruling indicates that the threshold for personal injury requires further clarification. Many individuals – likely most of us – are exposed to small doses of PFAS daily and carry low levels of PFAS in our bodies. This does not mean that everyone qualifies for personal injury; on the contrary, elevated blood levels are likely to be required. Where the line is drawn remains uncertain.

Since the damage is “manifested” through high PFAS levels in the blood, there is a numerical value to begin with in this case – the damage can be quantified to some extent.¹³¹ In other situations, the body may be exposed to harmful risks that cannot be linked to a measurable value in the same way. In such cases, it becomes more difficult to prove the existence and extent of the damage; the assessment depends on the actual exposure and the conclusions that can

reasonably be drawn from it. Moreover, the exposure must be attributable to a specific responsible party.

It is difficult to determine whether the ruling opens the door to other types of harm beyond “environmental damage.” Cosmetic surgery with unsatisfactory results may constitute a change, but for it to also amount to a significant deterioration in an objective sense likely requires more than subjective dissatisfaction. Ultimately, it still appears to hinge on some form of medical effect. The concept of personal injury may have acquired a more *legal character*, which is why the terminology used does not necessarily align with medical definitions. In the end, it is a legal assessment – grounded in facts – of what constitutes a significant deterioration of the body's external features as well as internal organs and functions, whether physical or mental.

The Supreme Court makes a few additional principled statements regarding the assessment of personal injury, para. 17. *The actions and involvement of the injured party* must also be considered, as must the requirement of *causation*. Liability for damages does not arise in cases of general negative health effects that may occur to anyone as a result of normal exposure to commonly occurring substances in food and the environment. Behind these lines, one senses underlying discussions that have led to a need for limitation. The threshold for contributory negligence is set high in personal injury cases under the Tort Liability Act, where gross negligence is required.¹³² In contrast, product liability allows for apportionment of liability based on simple negligence.¹³³ It may be more fruitful to discuss what constitutes a cause of damage and what defines as ‘normal conditions’? What is ‘normal exposure’ to PFAS, or what is considered an “acceptable amount” of PFAS in the body?

*This brings to mind the tort provisions in the Environmental Code (miljöbalken, 1998:808) and the limitations placed on compensation for pure economic loss, where the intent has been to avoid opening the door to overly extensive claims.*¹³⁴ *Pure economic loss not caused by a crime is only compensated if the loss is significant, Chapter 32, Section 1, Paragraph 2 the Environmental Code. Damage not caused intentionally or through negligence is only compensated if the disturbance that caused the damage cannot reasonably be tolerated in view of the conditions at the location or its general occurrence under comparable conditions, Section 3. The interest in compensation is certainly greater in cases of personal injury than in cases of pure economic loss.*

Further application of the law will determine what falls within the scope of the exceptions introduced by the Supreme Court. As always, the future is uncertain; no one knows what new events and cases may arise. Now that the Court has broadened the application of the traditional concept of personal injury, it is wise to exercise restraint at the same time.

¹²⁸ Cf. questions of *sufficient and necessary conditions* relating to the requirement of a certain causal link; cf. furthermore, concurrent, simultaneous, and successive causes of damage.

¹²⁹ Such an approach is also in line with the European Court of Justice's statements on a broad interpretation of the concept of damage.

¹³⁰ The burden of proof determines who bears the risk of uncertainty regarding the actual circumstances. The starting point is that the party claiming damages must show that the conditions are met, see, for example, Heuman, Lars, *Bevisbörda och beviskrav i tvistemål* [Burden and Standard of Proof in Civil Cases], 2005, p. 16 f.

¹³¹ See also Hannerstål, Carolina, *Risk som skada, En diskussion om ersättning av förhöjda risker i svensk skadeståndsrätt* [Risk as damage, A discussion on compensation for increased risks in Swedish tort law], thesis, Department of Law, Stockholm University, 2023, p. 40 ff. and 62 f.

¹³² See Chapter 6, Section 1, Paragraph 1 of the Tort Liability Act.

¹³³ Section 10 of the Product Liability Act.

¹³⁴ Cf. the tidal wave argument.

In a broader sense, the ruling reflects societal developments. Environmental considerations are becoming increasingly important as environmental problems grow and affect humans, animals, and the natural world. By confirming the harmful nature of environmental effects of this kind in terms of liability, the outcome can be seen as *a legal development in step with the times*. It is also likely to have preventive effects. Those who release substances into nature or society must increasingly ask themselves whether these substances may negatively affect people in the surrounding area – and,

if so, take measures to limit the spread or address the consequences of such effects. In this way, one can speak of an expanded notion of environmental damage. The ruling also strikes a balance between the core functions of tort law – reparation and prevention – while considering aspects of legal systematics.

However, the ruling does not address the victims' right to compensation. That question remains unanswered. If things go poorly, the case may return to the Supreme Court for a third time – unless the parties reach a settlement beforehand.¹³⁵

¹³⁵ As a starting point, damages are calculated individually for each of the injured parties in accordance with the compensation items in Chapter 5, Section 1 of the Tort Liability Act.