CAUSAL PROBLEMS IN FIRE AND MARINE INSURANCES

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I. *The General Theory on Causal Problems*

We shall be concerned in this paper with the clarification of the differences, which are in existence with respect to the principles of causal relations between the insurance for individual risk, such as the fire insurance, on the one hand and that for universal risk, such as marine insurance, on the other. We shall however confine ourselves here in this paper to the causal relations between perils insured against and damages, which all nevertheless only a part of many other causal relations concerning insurances. It is further to be remembered that there are two different problems with respect to the causal relations between perils insured against and damages. One is the problem, to what extent the insurer should indemnify the insured when combinated damages occurred. The other is the problem to select one peril as the real cause of the damage out of more than two perils, which are all seemingly responsible for the damage. In this paper, the author will mostly be concerned with the latter problem.[1]

The concept of causal relations is by no means peculiar to jurisprudence being common to both natural and spiritual sciences. It is therefore required to apply this fundamental theory of causal relations throughout jurisprudence in general. This requirement is of course under restriction, when the purpose of the theory is not in accordance with the requirement. The same situation prevails in the causal relations in the insurance law. In fact, there is no reason to apply to one and the same theory to the field of fundamental laws as well as to that of insurance laws, which constitute a special field in jurisprudence.

In order that a fact (peril) be the cause of another fact (damage), it is necessary that the former be at least a condition for the occurrence of the latter fact, which is the consequence of the former. The condition here means the totality of the facts, (condition sine qua non), the non-occurrence

[1] The former is the problem to be taken care of by the theory of insurable interest, while the latter is properly dealt with by the theory of causal relations. (Cf. Yoshisaku Kato, *Theory of Damage in Marine Insurance*, (in Japanese) 1935, p. 17.)

of which would not cause the effect to take place. In other words, there should not be any causal relation, if the same effect would take place without the cause in question. Sometimes, the existence of such conditional relations are easily observed, but sometimes it is not. For instance, the death of a family member, which took place as a result of the shock caused by the death of another family member on a trip, is clearly the effect of the death of the latter and we can easily find the conditional relation existing between these two deaths. On the other hand, the cause is not easily traced, for instance, of the death after an operation, or the shipwreck, which took place after a certain action on the part of the captain. In fact, it is by no means easy to establish a conditional relation between the operation or action and the death or shipwreck. In such cases, the experts (doctors or.....shipping operators) are entrusted with the decision about the existence or non-existence of any conditional relation. Such a method to establish a causal relation by means of a conditional relation between facts is one of the most fundamental ways of reasoning throughout all sciences. It is therefore to be employed in jurisprudence as well. It is called the theory of condition sine qua non. However, the overall employment of this method is not feasible in general, because the above-mentioned conditional relations come into existence sometimes quite by chance and there is no end in the chain of cause and effect. Therefore, if a fact among others should happen to have originated from the wilful misconduct or negligence on the part of the insured, the insurer would not be responsible for indemnification of the damage, which would occur as a result. However, such a thing is far from being the actual situation of insurances.[2]

On the other hand, the indemnification for accidental happenings would have the effect to overly extending the responsibility for indemnification making the management of the insurance business more than difficult. Such being the case, the fundamental theory of causal relations is applicable neither to the indemnification in civil codes, nor to that in insurance laws. Many contemporary theories therefore attempts to place some restriction upon such indemnifications. Nevertheless, the theory of adequate causal relations is the most important of these theories.

Contrary to the so-called condition theory, which determines the condition for the result in each case, the theory proposes to determine such a condition by general observations.[3] By general observations, we mean that a large number of observations are made in order to ascertain the resulting effect in the presence of many facts (conditions), which are connected with

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[2] Suppose, the insured has a dispute with another person, who set fire on the insured house in excitement; the insurer is not responsible for the indemnification, according to this theory.

[3] Träger, *Der Kausalbegriff im Straf-und Zivilrecht*, 1904, S. 38 ff.; Hatoyama, *Japanese Laws of Credits (General Theory)*, (in Japanese) p. 61.

each other.[4]

If the conditional relations between facts are established in a more general way like this, the relations thus established are free from the effect by chance than those obtained with respect to concrete cases. It is therefore a highly adequate theory of causal relations in dealing with legal relations in our everyday life. In one of the above examples, the death of a family member on a trip is clearly the cause of the death of another family member at home, who was shocked by the death of the former, if we confine ourselves to this single concrete case. However, such a causal relation can not be found in general. In a word, the difference between this theory and condition theory only lies in the fact that the former tries to establish the conditional relation with respect to concrete and real facts, while the latter is interested in the conditional relation in general. As this theory is generally called "Theorie der adäquaten Verursachung", the word "adequate causal relation" is suspected of some particular connotation. Nevertheless, there is no such thing other than the above-mentioned. It is therefore not correct to recognize the adequate causal relation, only where a effect occured as the inevitable or natural consequence of the happening of some facts. Even in cases of unnatural consequences, adequate causal relation may be recognized.[5] Suppose, for instance, that some movable properties are left alone without any shelter taken away from a burning house and are damaged as a result, or a ship is heavily damaged as a result of a fire, which was started by a spark generated by the collision of a crane with the ship's side. The damage of the movable properties or the fire of the ship are by no means the inevitable or natural result of the fire or the fall of the crane. But they can be called as their general effect. This theory will be taken up again in the sequel in reference to the difference between the theory of adequate causal relations and that of natural consequences.

II. *The Theory of Causal Relations in Fire Insurance*

The theory of adequate causal relations is most prevalent in jurisprudence in Japan, in particular, in the theory of civil law as the most popular theory concerning causal relations. It is not effectively employed in dealing with the damage insurance law. In case of the fire insurance law, our jurists are almost without exception in agreement with each other about the validity of this theory. However, there are some exceptional jurists,

[4] Kisch maintains in this connection that statistics is one of the main sources of empirical laws (Kisch, *Zum Kausalproblem im Versicherungsrecht*, 1926, S. 27).

[5] Träger, loc. cit., S. 471.; Ishizaka, *Japanese Civil Codes*, (in Japanese) Chapter 3, *Credits*, Vol. 1, p. 300.

who are not in agreement with the majority.[6] The author himself is of the opinion that this theory should be called for in determining the responsibility on the part of the insurer for the indeminification in case of the insurance against single risk. (Insurances such as marine and transportation insurances are called the insurances against universal risk.) The author is however not in agreement with majority jurists about the ground for its adoption. In particular, he has come to the conclusion opposite to that obtained in accord with the said theory, when precedents are about fire insurance. We shall be concerned in the sequel more in detail with the problem, which was taken care of by the precedent. We however wish to say one word about the problem. The adoption on the part of many jurists of the theory of adequate causal relations in the study of the insurance law is merely originating from the fact that the said theory is most generally accepted in the study of the private law being the principle of indemnification in the civil code and most of the advocates of this theory do not take trouble of assuring its adaptability to the peculiar situation in the insurance law. Even if the indemnification is provided for by the Article 416[7] of the Civil Code and the theory is the principle which governs causal relations to be dealt with by the private law, we are by no means forced to follow the theory, as has been mentioned above.[8] We shall therefore be concerned in the sequel with the criticism of the precedents of the Supreme Court as well as with the applicability of the theory with respect to the damage insurance law and the ground of its applicability, if any.

According to the precedent of the Supreme Court concerning fire insurance, the insurer is responsible for the indemnification, as far as the damage is in an adequate causal relations with the fire, even if the former is a consequence of an explosion caused by the latter. According to the Article 666[9]

[6] Doctrine of causa proxima is advocated by Dr. Nozu for the theory of adequate causal relations with respect to damage insurances. (Cf. Nozu, *The Theory of Insurance Contract Law* (in Japanese) p. 301.)

[7] The Article 416 of the Civil Code.

The object of the request for an indemnification is the indemnification for the damage, which takes place as a usual result of the failure to meet obligations. Even if a damage takes place as a unusual result in a special situation, the creditor has the right to demand the indemnification, when those concerned can or could forsee the said situation.

[8] In his book cited above, Dr. Nozu further maintains that the principle of indemnification in the Civil Code does not prevail any more in the damage insurance law, there is nothing common to these two kinds of indemnification. Although the author believes, the same principle prevails, at least, with respect to fire insurance, his theory seems to the author of much use in some other fields. (Cf. the chapter on the causal relations in marine insurance).

[9] Article 665 of the Commercial Code: The insurer is responsible for the indemnification for the damage caused by a fire, whatever the cause of the fire may be. However the insurer is not responsible for the indemnification, in the case provided for in the Articles 640 and 641 of the Commercial Code.

The Article 666 of the Commercial Code: The insurer is responsible for the indemnification of the damage, which is a consequence of refuge or fire protection.

of the Commercial Code, the insurer is not responsible for the indemnification of the damage indirectly caused by a fire, except in case the damage is a direct consequence of refuge or fire protection.[10] The above-mentioned precedent however ascribes the damage to the fire, because both the fire and the explosion could be the cause of the damage and recognizes the responsibility of indemnification on the part of the insurer.[11] According to the theory of adequate causal relations, the risks which come into such a relation can all be the cause of the damage in question. So seemingly the precedent of the Supreme Court is not without ground. In reality, it however involves a serious contradiction. In fact, the responsiblity on the part of the insurer for the indemnification could not be decided theoretically, if both fire and explosion were the cause of the damage, the former being the peril insured against, and the latter being another peril not insured against.[12] In other words, the insured would be unable to demand the indemnification for the damage, from the viewpoint of the adequate causal relations theory, as far as we confine ourselves to causal relations.[13] [14] We are thus led to the conclusion, which is just opposite to the afore-mentioned precedent of the Supreme Court. However, the better understandiug of the very nature of fire insurance and the improvement of the theory of causal relations by means of it seems to be a prerequisite for the final solution by means of the principle of demonstrable responsibility.

In single risk insurances, such as fire insurance, the risk insured against is supposed to be more important, while other risks resulting from it is

[10] According to some students, the Article 665 only stipulates the responsibility of the insurer for the indemnification of the damage, which is a direct consequence of the fire, while the responsiblity for the indemnification of the damage which is resulting indirectly is not provided for in the Article except the case provided for in the Article 666. (Cf. Nozu, loc. cit., p. 302, Takeda, Collected Papers on Jurisprudence, (in Japanese) Vol. 3, p. 158.) In the majority opinion, the former provides for the responsibility on the part of the insurer for the indemni- fication of the indirect damage, while the latter imposes a restriction to the application of the former against the literary interpretations. (Cf. Kato, *The Theory of Fire Insurance* (in Japanese) p. 127, Takitani, *Studies on Insurance*, (in Japanese) p. 169, Minaguchi, *The Insurance Law*, (in Japanese) p. 582, Aoyama, *The Insurance Contract Law*, (in Japanese) p. 150.) From this interpretation of the Article 665 of the Civil Code, Dr. Nozu concludes that causa proxima is at the foundation of the theory of causal relations in our insurance law. The author does not however agree with him with this respect.

[11] The decision on 31 May, 1927.

[12] Kisch, loc. cit., S. 46.

[13] Kisch, loc. cit., S. 48.

[14] In case of the indemnification provided for in the Civil Code, i.e. the indemnification resulting from the failure to meet one's obligation or from the unlawful act, the indemnification is of a disciplinary nature. Therefore, all the conditions, which are in adequate causal relations to the effect, are supposed to be the cause of the said effect. (Refer to loc. cit., Article 416 of the Civil Code.) In case, the insurer is responsible for the indemnification of the damage as his business, we can not adopt the theory of adequate causal relations, as far as we are unable to uniquely determine a cause. (Refer to Nozu, loc. cit., p. 301.) Fortunately, we are in a position to uniquely determine the cause in case of the insurance against a single risk such as fire insurance. From such a point of view, the theory is advocated for its application in fire insurance.

taken care of as secondary. In case of fire insurance, the risk insured against is respectively the fire. Further, such an observation is well in accord with the economic significance of the insurance. Therefore, in whatever way a fire may cause the damage, independently or helped by an explosion or other perils, or indirectly in connection with other perils, the insurer should be responsible for the indemnification of the damage, if the full effect of the insurance should be developed. Such an idea is also well in accord with the original intention of the contractors. This is further the reason why in the Article 665 of the Commercial Code, it is stipulated, "The insurer is responsible for the indemnification of the damage, caused by a fire, in whatever way the fire may happen." But as to the indirect result of a fire, in view of the real state of affairs of our fire insurance companies, the responsibility provided for in the above-mentioned Article 665 is restricted to the case of refuge and fire protection in order to reduce the responsibility on the part of the insurer. (Article 666 of the Commercial Code.) At any rate, the prevalence of the risk insured against other subordinate minor risks gives rise to an ordering of the risks, all of which are supposed to constitute equally the causes of the damage according to the theory of adequate causal relations. We are therefore free from the contradiction, which might take place in connection with the priority of the responsibility on the part of the insurer. These secondary risks are so-called neutral facts and are not supposed to constitute the cause of the damage.[15] But in case such secondary risks are specially excluded from the liability of the insurer legally or by the contract, whether the main risk (e.g. fire) induced by the secondary (e.g. explosion), or the latter induced by the former, the main risk can not be considered the one insured against any more as a case of limitation of risk (causal or consequential limitation) and shall be discharged from the liability for the indemnity of the loss caused by such risks. Summing up, the responsibility on the part of the insurer is solely determined by the main risk, which is in limitation in the above-mentioned sense. Thinking in this way, we come with respect to the afore-mentioned precedent of the Supreme Court to a different conclusion in spite of our reliance on the theory of adequate causal relations and the insurer is not responsible for the indemnification, at least, in author's opinion.[16]

[15] Kato, *The Theory of Fire Insurance*, (in Japanese) p. 131.

[16] In this case, the fire and the explosion (excluded risk) are supposed to be two different entities by the precedent of the Supreme Court. Furthermore, only with respect to the former, the precedent recognized the responsibility on the part of the insurer. In author's opinion, the damage, though caused by the fire, releases the insurer from the indemnification of the damage caused by the explosion according to the principle of the limitation of the risk and such exemption is also in accord with the intention of both parties concerning the special clause in the Japanese fire policy, which states that the insurer is not responsible for the indemnification of the damage caused by the explosion. Although the theory is not the same as that of Drs. Nozu and Takeda, the author thus came to the same conclusion as theirs.

3. *Theory of causal relations in marine insurance*

Thus far, we have been concerned with the insurances against a single risk such as the fire insurance. Therefore, it is not yet clear whether or not the same holds with respect to the insurances against general or universal risk, such as marine and transportation insurances. The author believes however that quite a different theory should be set up in order to successfully deal with such insurances. In other words, there is no room, in author's opinion, for the use of the theory of adequate causal relations. Summing up the reason for it, the domain or background of the theory of causal relations is quite different in the case of the insurances, we shall be concerned with in this section. In other words, in the case of fire insurance, the validity of the theory is looked for with respect to the relation between the fire and other accompanying risks, while in the case of marine or transportation insurances, it is tested in the relation bewteen various marine or inland risks themselves. As the risk which constitutes the object of marine insurances come under the category of a universal risk, we have no principle, by which we could select a risk as responsible for the damage. For instance, if a ship is lost in consequence of a collision with an other ship by the extinguishment of a lighthouse due to a war, we have no method to determine which was really the cause of the loss, collision or extinguishment of a light house (a war risk). If all of these risks are insured against, it is of course not necessary to select one as the cause of the damage from other risks or to make an ordering among these risks. But if some of the risks are exempted from the responsibility of the insurer, it is necessary for us to determine, whether the insurer is responsible for the indemnification or not. Therefore, we can not employ the theory of adequate causal relations, which ascribes the cause of the damage to the all sea risks standing in adequate causal relations to the damage.

In this country as well as in Europe, there are some students, who advocate the theory of adequate causal relations in such cases, although their respective paractical procedures are not the same. Therefore, we shall in what follows introduce various opinions related to this problem with a view to reviewing their respective validity.

(a) The theory which ascribes the cause to the risk insured against.

This thoery was proposed by Dr. Imamura, according to whom the risk not insured against is a neutral fact. Therefore, we need not take it up, although it might also constitute a cause. The insurer is thus responsible for the indemnification of the damage, even if the risk not insured against is involved in causing the damage.[17] The author wishes to point

[17] Imamura, The theory of Damages at Sea, (in Japanese) p. 11. Dr. Omori also seems to be of the same opinion. *Practical Course of Damage Insurances,* (in Japanese) p. 134.

out in this connection that a more thorough-going inquiry should be made into his interpretation of the risk not insured against as a neutral fact. As has been already mentioned, a neutral fact does exist only in case there are main and secondary risks as in the case of fire insurance. On the contrary, there is no reason to look for such a fact, if no such distinction is made of competing risks.[18] In fact, a consequence not expected by both parties would take place, if we should dare to employ such a hypothesis. For instance, even if the exemption of the indemnification of the damage originating from the risk of war is explicitly provided for in the contract, the insurer is always responsible for the indemnification except in case the risk of war is solely responsible for the damage. And such a consequence is by no means accepted as usual in the dealing of marine insurance. (Refer to the "Ikaria" case.)[19]

(b) The theory, which ascribes the damage to the risk not iusured against.

This theory was proposed by Ripert in connection with war risks.[20] It is certain that the risk not insured against is not the sole cause of the damage, just like the risk insured against is not its sole cause, when we adopt the theory of adequate causal relations. It is said that such a conclusion is also obtained from the standpoint of the limitation of risks. As has been pointed out repeatedly, such a stand is tenable in case of the insurance against a single risk, but not in case of the insurance against universal risk.

(c) The theory of quasi double insurance.

This theory was proposed by Bruck.[21] According to him, the damage caused by the risk not insured against should be indemnified by the insured himself. According to self-insurances or double insurances, the insurer is also requested to indemnify one half of the damage. However, there is no relation whatsoever between the quasi double insurance and the problem of causal relations and the proposed solution is nothing but the last one forcibly

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[18] If the risk not insured against should be characterized in some way, it is not the neutrality of the risk, but its limitation. Therefore, the insurer is always exempted from the indemnification (See related paragraphs in the foregoing). However, such a thing holds goods only in the case of the insurances against a single risk, such as fire insurance, and not in the case of the insurances against universal risks, which is the subject of this section.

[19] The "Ikaria" case was a dispute between the Leyland Shipping Co. and Norwich Union Fire Insurance Soc., which took place in 1918. At the time of the World War I, a ship called "Ikaria" was torpedoed by a German submarine off the coast of Havre and heavily damaged. For repairing, she was taken in tow to the port of Havre, but sank at the outer port due to a rough weather. The House of Lords handed down its decision ascribing the damage not to the sinking (the risk insured against), but to the torpedo attack by the submarine (the risk not insured against). (Cf. Templeman (Greenacre), Marine Insurance, 1934, pp. 139-135) Dr. Imamura is also in agreement with this decision.

[20] Ripert, *Droit Maritime*, Tome 3, 1953, n. 2680.

[21] Bruck, *Das Privatversicherungsrecht*, 1930, S. 405.

found as a result of the adoption of the theory of adequate causal relations.[22]

(d) The theory of undecidability.

This theory was proposed by Kisch. According to this theory, the insured is always at a loss, because we have no method to decide the cause of the damage from the standpoint of the theory of causal relations.[23] It is quite natural that such a conclusion is obtained as far as we adopt the theory of adequate causal relations with respect to marine insurance. The theory is therefore the most consistent and reasonable among all the proposed solutions, which have been mentioned in the foregoing. However, it is another problem, whether such a solution is well in accordance with the actual state of affairs in insurance businesses and to the ideas prevalent there. In fact, the proposed solution seems to be against the actual state affairs in insurance businesses.

As has been clear from various solutions for the theory of adequate causal relations as above enumerated, the theory gives rise to all the formally possible solutions with respect to marine and transportation insurances. In fact, it is almost impossible to select the most reasonable one out of such a large number of solutions thus proposed. In this connection, we recall with sympathy a statement of Hagen that the adoption of the theory of adequate causal relations opens the door to all possible kinds of disputes.[24] Like this, there is no possiblity for us to obtain any satisfactory solution as far as we adhere to the theory of adequate causal relations. We are therefore obliged to adopt some individualizing theory of causal relations in place of the theories, which ascribe the damage to many risks. Among such theories, most important are the theory of effective cause, and that of causa proxima as well as the principle of natural consequences, of which, the first one will not be considered in detail, because it has been rejected by the majority as unreasonable. In fact, the theory of effective cause ascribes the damage to the socalled effective cause, which is quite subjectively determined being the product of perceptions. The theory is therefore without any theoretical ground. We shall accordingly take up the principle of causa proxima and that of natural consequences.

(a) The principle of causa proxima.

This principle is well-known and in use in the Marine Insurance Law in England. (Cf. M.I.A. § 55 (1)) Originally, it was the principle, which ascribed the damage to the condition, which took place last in the time series. It is therefore somewhat like the theory of causa ultima. However, the application of the principle has subsequently been extended and the condition, which does not necessarily come last temporarily, has sometimes

[22] Ritter, *Das Recht der Seeversicherung*, Bd. I, 1922, S. 471.

[23] This theory has already been introduced in connection with the causal relations in fire insurance. Refer to the paragraph which deals with it.

[24] Hagen, *Seeversicherungsrecht*, 1938, S. 58.

been designated as the causa proxima in its wider sense.[25] Such a tendency has further been developed after the World War I. However, the tendency was in most cases motivated not by any theoretical observation but by practical needs to remedy the unreasonable consequence, which occurs as a result of this principle. We have therefore no definite method in determining the causa proxima thus reinterpreted and we are in confusion as a result.[26] In order to get out of such difficulties, some students have proposed the introduction of the effective, or dominant, or real, or operative cause with a view to more successfully explain the selection of a cause in the temporal order.[27] The proposed solution by way of the introduction of such causes is however not beyond our common sense coming nearer to the afore-mentioned theory of effective cause. Nevertheless, some precedents in England are originating from a objective standard about the dominance of the cause to be selected and we can not deny that such a standard has motivated the rise of the theory of natural consequences, with which we shall be concerned in the following.

(b) The principle of natural consequences.

According to this principle, the cause of the damage should in principle be the first one out of many others, which took place in succession finally causing the damage. However, if the cause of the damage can by necessity be traced back to another one in the chaine of the causes, the cause in question is supposed to constitute the sole cause of the said damage. In case the said cause is a risk insured against, the insurer is responsible for the indemnification. On the other hand, if the risk is not insured against, the insurer is not responsible for the indemnification. In reality, such a tracing back can not be made so far to all the events, which supposedly consititute the cause of the damage. On the other hand, the recognition of such causal relation between the damage and an event in the series of happenings is to be made in reference to all the objective conditions known at the time and from our everyday experiences.[28] Like this, the series of events which might be responsible for the damage, is reconstructed with all the objective conditions at the background. Therefore, the most immediate cause may sometimes be taken as the cause, while the remotest cause may sometimes be selected as the cause, even if these causes are connected to each other being seemingly all responsible for the damage. For instance,

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[25] A certain amount of cigaretts insured are shipped together with leather. As a result of a storm, sea water comes in the ship spoiling the leather. The smell thus generated in turn spoils the cigaretts. In this case, an English court in charge of this case handed down its decision to the effect that the damage was proximately caused by perils of the seas. (Montoya v. Lonson Assurance, 1851.)

[26] Kato, The *Theory of Perils in Marine Insurance*, (in Japanese) 1932, p. 136.

[27] Templeman, loc. cit., p. 138.

[28] If the case is of special nature (for instance a happening during a voyage), experts (shiping operators) should be consulted.

suppose a ship came into a collision with an other ship and was damaged as a result of her blackout navigation. According to this principle, the collision should be the cause, if it happened at high sea, while the black-out navigation should be the cause, if the collision happened in the port or in a narrow strait. In other words, this principle is a more reasonable adaptation of the principle of the immediate cause. In fact, Ritter, expounder of this principle, calls it a version of the principle of the causa proxima.[29] As has already been mentioned in the foregoing, various interpretations of the principle of the immediate cause is also under the influence of this spirit, which is perhaps most in accordance with the real states of affairs in marine insurance businesses. In author's opinion, the principle should therefore be employed as the doctrine to determine the causal relations in Japanese general hull or cargo clauses.[30] [31]

IV. *Difference between the theory of adequate causal relations and the principle of natural consequences.*

Thus far, we have been concerned with various principles of causal relations to be adopted in marine insurance. As has already been mentioned at the beginning of this paper, the principle of natural consequences is frequently confused with the theory of adequate causal relations and the former is sometimes supposed to a special case of the latter. We shall therefore be concerned in what follows with the clarification of the difference between these two principles. In the first place, we should recall that the inadequacy of the theory of adequate causal relations was emphasized by Ritter, when he expounded this theory. It is therefore clear that Ritter did not identify the theory with the theory of adequate causal relations. It should be pointed out that the method of generalization is in employment by both theories in observing the causal relations. However, the standard of determining the causal relation is quite different from each other. In the first place, according to the theory of adequate causal relations, any condition, which might possibly be the cause from general observations, are all considered to be the cause, while the natural course of events is the condition to be taken into consideration in determining the cause, if we adopt the theory of natural consequences. In the former theory, the relation between the damage and cause is not so strictly in determination as in the latter theory. In other words, the latter does not demand us to look for the cause so far, as the former does. As has been briefly pointed out in the foregoing such a difference takes place as a result of the difference of

[29] Ritter, loc. cit., S. 474.

[30] With this respect, further refer to Kato, *The Theoryof Perils in Marine Insurance*, (in Japanese) p. 139.

[31] Hagen (loc. cit., S. 58) is also in agreement with this principle. For the above-mentionedreason, Gierke (*Versicherungsrecht*, II, 1947, S. 269) further adopts the principle in marine insurance.

their respective standard of determining the cause of the damage. In finding out a condition, which is standing in adequate causal relations to the damage, we have to make a large number of observations both in the case of the existence and non-existence of the condition in question. If the damage takes place more frequently in the case of existence, than in the case of non-existence, the condition is supposed to be the cause of the damage from the standpoint of the theory of adequate causal relations. In the opposite case, the condition can not be the cause of the damage. In other words, the theory of adequate causal relations is interested not only in the case of the existence of the condition, but also in its non-exsitence in order to compare the frequency of these two cases. On the other hand, the theory of natural consequences is only interested in the frequency of the occurrence of the damage in event the condition in question takes place. In general, we recognize the existence of a causal relation, if the frequency is more than 70%. From our everyday experience, we say that the occurrence is necessary or contingent or rare in accordance with the frequency of 100%, about 50% or under 20~30%. In most cases, we do not grasp the situation statistically, but can well understand it.[32] For example, let the probability that a ship collide and is damaged at high sea in her blackout navigation be 1/100. Further, let the similar probability in port be 70/100. According to the theory of natural consequences, the blackout navigation can be made the cause of the damage only in the latter case. However, if we adopt the theory of adequate causal relations, we have to obtain statistical material not only about the blackout navigation, but also about the lighting navigation as well. Suppose the probability about the lighting navigation be 1/1000 and 5/1000 respectively at high sea and in port. As they are both smaller than the respective probability in the case of the blackout navigation, the blackout navigation can be the cause of the damage as a condition, which is generally favourable or helping to the occurrence of the said damage. As is clear from the foregoing, the theory of adequate causal relations ascribes the damage to an event, even if the probability of its occurrence with and without the event are respectively only 2/100 and 1/100. On the other hand, the event in question could not be the cause, if the former was 80/100 and the latter 85/100.[33] According to the theory of natural consequences an event can always be the cause of the damage, if the probability of its occurrence with the said event is larger than 70/100. Of course, we do not have any particular intention in using these figures other than to numerically represent the notion of natural con-

[32] In determining the probability, surveyers should be consulted about special problems. This has already been mentioned in dealing with the theory of natural consequences.

[33] Suppose a patient died from cancer after undergoing an operation. Statistically, the death rate is larger in the case without operation than with operation. According to this theory, the operation is not the cause of the death.

sequences. Like this, there is an essential difference between the theory of adequate causal relations and that of natural consequences. It is therefore utterly erroneous to identify them or to deal their difference merely as a matter of degree.