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Carlos S. Cadena

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## ARTICLES

### THE PYRAMIDING OF PRESUMPTIONS AND INFERENCES IN TEXAS

CARLOS C. CADENA\*

Sir, the law is as I say it is, and so it has been laid down ever since the law began; and we have several set forms which are held as law, and so held and used for good reason, though we cannot at present remember that reason.<sup>1</sup>

There are countless decisions which lay down the commendment: "Thou shalt not base a presumption upon a presumption, nor an inference upon an inference." In at least twenty-six jurisdictions the courts have, time and again, reminded us that a presumption cannot be based on another presumption or, as sometimes stated, that a presumption cannot be based on a presumed fact;<sup>2</sup> while in thirty-nine states the judiciary consistently points out the utter futility of attempting to base an inference upon an inference.<sup>3</sup> Unfortunately, the decisions cannot be so neatly compartmentalized because courts are prone to use the terms "presumption" and "inference" as being synonymous.<sup>4</sup>

While the anti-pyramiding rules are almost universally condemned by legal commentators,<sup>5</sup> and despite the fact that occasional decisions can be found in some twenty-three jurisdictions<sup>6</sup> rejecting the rules, the

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\* Associate Justice of the Fourth Court of Civil Appeals of Texas; J.D., University of Texas.

<sup>1</sup> Y.B. 36 Hen. VI, ff. 25b-26, as quoted in 3 W. HOLDSWORTH, *HISTORY OF ENGLISH LAW* 625 (3d ed. 1923).

<sup>2</sup> Annot., 5 A.L.R.3d 100, 106-119 (1966).

<sup>3</sup> *Id.* at 131-136.

<sup>4</sup> See MODEL CODE OF EVIDENCE rules 52-54 (1942) (Professor Morgan's Foreword); 1 B. JONES, *EVIDENCE* § 10 (5th ed. 1958).

<sup>5</sup> 1 J. WIGMORE, *EVIDENCE* § 41 (3d ed. 1940); 2 F. HARPER & F. JAMES, *TORTS* § 19.4, at 1071 (2d ed. 1931). Diefenbach, *The Rule: Inference of Fact Cannot Be Predicated Upon Another Inference*, 15 OHIO BAR ASS'N REP. 541 (1943); Jennings, *Probative Value of an Inference Drawn upon Another Inference*, 22 CINCINNATI L. REV. 39 (1953).

<sup>6</sup> Annot., 5 A.L.R.3d 100, 121-131, 136 (1966).

formulae are still alive and doing well, at least insofar as the frequency of references to them is concerned.

Since the terms "presumption" and "inference" are so variously defined and loosely used, a consideration of the Texas cases condemning the pyramiding of presumptions or inferences should be preceded by a consideration of the meaning of the two terms.

#### DISTINCTION BETWEEN PRESUMPTIONS AND INFERENCES

When the courts believe that the relationship between one fact or group of facts and another fact or group of facts is strong enough, the establishment of the existence of the first fact or group, here referred to as "A", justifies the assumption that the second fact or group, here called "B", exists. If, when the existence of "A" is established, the law *requires* that the existence of "B" be assumed, unless evidence is produced which would support a finding of its non-existence, we have a true presumption.<sup>7</sup> A presumption, then, is a rule of law which compels the trier of fact to draw a certain conclusion from a given fact or group of facts, in the absence of evidence rebutting such conclusion.<sup>8</sup>

On the other hand, the term "inference" should be, and is here, used only to refer to those situations where the trier of fact, given the existence of "A", is permitted, but is not required, to assume the existence of "B". If the existence of "A" is evidence of sufficient probative force to justify the finding that "B" exists, but the law does not attach to the existence of "A" the effect of casting upon the opposing party the burden of producing evidence negating the existence of "B", the trier of fact is free to draw whatever conclusion it deems proper concerning the existence of "B" and may properly find that "B" does not exist, even in the absence of evidence of its non-existence.<sup>9</sup>

The use of the term "presumption" to include a conclusion of fact permissibly drawn from the existence of other facts only results in cloudy thinking and inevitable confusion. The confusion is not dispelled by using the term "presumption of fact" in the sense of permissible inference.

#### AN INFERENCE CANNOT BE BASED ON AN INFERENCE

The origin of the rule against predicating an inference upon an in-

<sup>7</sup> Johnson v. Timmons, 50 Tex. 521 (1878); MODEL CODE OF EVIDENCE rule 104.1 (1942).  
<sup>8</sup> 9 J. WIGMORE, EVIDENCE § 2491, at 289 (3d ed. 1940); Keeton, *Statutory Presumptions—Their Constitutionality and Legal Effect*, 10 TEXAS L. REV. 34 (1931); Chafee, *The Progress of Law, 1919-1921: Evidence*, 35 HARV. L. REV. 302 (1922).  
<sup>9</sup> 9 J. WIGMORE, EVIDENCE § 2491, at 288 (3d ed. 1940).

ferred fact is obscure. Dean Wigmore states that this "fallacious and impracticable limitation" was "originally put forward without authority."<sup>10</sup>

It cannot be doubted that much of our day-to-day reasoning consists of building inference upon inference, although it is true that the steps in reasoning by which we seek to *prove* a proposition are not always stated separately in a way which reveals the movement from one inference to another in the course of proof. If the rule against pyramiding inferences were observed in and applied to all departments of reasoning, it would prevent, or at least, greatly inhibit the logical processes by which we arrive at reasoned conclusions from adequate data. Clearly, then, the rule must be rejected as a standard applicable to the ordinary decision-reaching process. Any person who is at least superficially acquainted with what is called "the scientific method" will realize that a prohibition of the drawing of inferences from inferred facts would have effectively prevented the discovery of many scientific "truths." Almost every great scientific discovery is the final link in a chain of inferences and is itself an inferred fact which immediately forms the basis for further inferences which, it is hoped, will lead to the discovery of a new "scientific law."

If, then, judges, lawyers and juries are enjoined from drawing an inference from an inferred fact, they are being told that they must avoid reasoning as all rational persons reason. The conclusion that they are being asked to reason irrationally must, of course, be resisted.

It is one thing to point out that almost all conclusions are reached by building inferences upon inferences; it is quite another to say that all conclusions arrived at by such a reasoning process must be accepted. Even a conclusion reached as the result of but a single inference may be summarily rejected as nonsense. No rational person would accept the given fact that the sun rises every day in the east, standing alone, as supporting the conclusion that defendant was driving his automobile at a negligently excessive rate of speed.

Before we may validly infer the existence of "B" from the existence of "A", we must establish the existence of a relation between the given fact and the claimed conclusion. For certain purposes, we may accept the claimed conclusion as the basis for action if our hypothesis is nothing more than the formulation of a possibility. Often, we base our conduct

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<sup>10</sup> 1 J. WIGMORE, *EVIDENCE* § 41, at 436 (3d ed. 1940). Wigmore refers to the rule as a "suggestion" which he attributes to 1 T. STARKIE, *EVIDENCE* § 57 (1824).

on the truth of a probable hypothesis. But our courts insist, in the course of litigation, that a fact be established by evidence creating more than the mere possibility or, generally speaking, bare probability of its existence.<sup>11</sup> Where the party on whom rests the burden of establishing the existence of a fact relies on circumstantial evidence exclusively for the purpose of discharging his burden, the evidence must be sufficient to establish that the hypothesis for which he contends is more probable than other hypotheses which may be based on such evidence. That is, the evidence must show, given the existence of "A", that the existence of "B" is more probable than its non-existence.<sup>12</sup>

The Texas cases have not hesitated to invoke the magic formula as supporting their conclusion that the evidence in the case before them does not justify the factual conclusion reached by the trier of fact. But an examination of the cases reveals that the formula, while often repeated and purportedly enforced, is seldom the correct explanation of the result reached. The rule against pyramiding inferences is, in fact, not applicable to the cases in which it is invoked.

While it may be true that, in a few cases, the rule may justifiably be said to be the reason, or one of the reasons, for the result reached,<sup>13</sup> in most cases the recital of the rule is irrelevant for one of the following reasons:

- (1) The case does not involve the building of an inference upon an inference.
- (2) While the case involves the pyramiding of inferences, the evidence does not justify the drawing of the first inference.
- (3) Even if the validity of the first inference be granted, the relation between the fact thus inferred and the fact sought to be established by the second inference is not strong enough to justify the drawing of the second inference.<sup>14</sup>

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<sup>11</sup> The statements in the text are, of course, generalizations. It is recognized that the courts often tolerate an inference or even create a presumption for the purpose of achieving a desirable result or because of procedural convenience. J. THAYER, *A PRELIMINARY TREATISE ON EVIDENCE AT COMMON LAW* 351 (1898). The problem of the sufficiency of evidence to justify an inference is, of course, distinct from the problem of relevancy in connection with questions concerning the admissibility of evidence. Evidence which does no more than support a merely possible hypothesis may be held to be relevant and, therefore, admissible, although, standing alone, it would be insufficient to support a finding. *See generally* 1 J. WIGMORE, *EVIDENCE* §§ 38-43 (3d ed. 1940).

<sup>12</sup> 4 B. JONES, *EVIDENCE* § 987 (5th ed. 1958).

<sup>13</sup> *E.g.*, *Walker v. Koger*, 99 S.W.2d 1034 (Tex. Civ. App.—Eastland 1936, writ *dism'd*).

<sup>14</sup> In some cases, of course, the ultimate conclusion depends upon the drawing of more than two successive inferences. But, whatever the length of the inferential chain, an inference must be rejected if the fact on which it purports to be based, regardless of the manner in which such fact is established, does not support the inference.

*Cases Which Do Not Involve Pyramiding*

If the establishment of the fact in issue requires that but a single inference be indulged, all inveighing against the building of inferences upon inferences is irrelevant. In such a case, the only problem is that of determining whether the facts upon which the inference is based have sufficient probative value as evidence of the existence of the inferred fact to justify the drawing of the inference. The problem is one of logic, and the court need only determine whether the segment of human experience with which it is familiar points convincingly enough to the conclusion that when "A" exists there is a sufficient probability that "B" also exists to warrant the making of the inference.

In *Fort Worth Belt Ry. v. Jones*,<sup>15</sup> the Texas Supreme Court had before it a case in which plaintiff, in order to recover, had the burden of showing that defendant's employees placed some pipe on the railroad track. In concluding that the evidence did not support the required finding, the court stated: "A presumption of fact cannot rest upon a fact presumed. The fact relied upon to support the presumption must be proved."<sup>16</sup> Plaintiff contended that the fact, established by "direct" testimony rather than inference, that defendant's employees were working near the scene of the accident, supported the conclusion that they had placed the pipe on the track. The court held that such fact was an insufficient basis for the inference that such employees placed the pipe on the track. This basis for the holding can be defended, but since only one inference was required, the statement concerning the rule against predicating an inference upon an inference cannot be considered as forming the basis for the holding. A statement to the effect that the existence of "A" is no evidence of the existence of "B" is not rendered more persuasive by the gratuitous statement condemning the basing of an inference upon an inferred fact.

In *Lone Star Gas Co. v. Eckel*,<sup>17</sup> plaintiff was injured as the result of an explosion which he alleged was caused by the fact that the defendant gas company had negligently allowed its gas to flow through gas lines which the defendant knew, or should have known, were defective. The pipes in question, which were on private property, were not laid by defendant, but by a third party employed by the owner of the premises. In order to show knowledge of the defective condition of the line on

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<sup>15</sup> 106 Tex. 345, 166 S.W. 1130 (1914).

<sup>16</sup> *Id.* at 350, 166 S.W. at 1132.

<sup>17</sup> 110 S.W.2d 936 (Tex. Civ. App.—Fort Worth 1937, no writ).

the part of defendant, plaintiff introduced testimony of several witnesses to the effect that, while the lines were being laid, one of defendant's employees had installed a meter on the premises and had engaged in conversation with the workmen who were installing the line. This testimony was not contradicted. Plaintiff contended that the presence of defendant's employee on the premises and the fact that he had engaged in conversation with the persons laying the line, which facts were established by direct testimony and not by inference, supported the conclusion that defendant had knowledge of the defective condition of the line. The vice in plaintiff's theory, therefore, was not that it rested on a series of inferences. Plaintiff failed simply because the facts established by direct testimony lacked the probative force required to support the single inference, notice to the defendant, which had to be drawn in order to fix liability on the defendant. Nevertheless, the court, for reasons which are not only unexplained but also not readily ascertainable, thought it necessary to remind plaintiff that the existence of a fact cannot be proved by a chain of inferences.

A similar needless allusion to the formula is found in *Carol v. Ford Motor Co.*,<sup>18</sup> a products liability case. Plaintiff sought the aid of the doctrine that when there is a defect in a product which is encased in a sealed container there is an inference that the defect existed at the time the product left the hands of the manufacturer or seller. The court, after pointing to the rule against pyramiding inferences upon inferences, held for the defendant. Again, it is clear that the weakness in plaintiff's contention was not that his conclusion rested on a series of inferences. As the court pointed out, there was no evidence of the existence of the fact upon which the only required inference was based. Nor was there a series of inferences in *Whitfield v. Whitfield*.<sup>19</sup> The holding, unquestionably correct, was merely that evidence that in November, 1932, testator handed to a witness a sealed envelope, on which was written the word "will," would not support the inference that the sealed envelope contained a will which testator did not execute until nine months later.

The reliance on the formula in *Clampitt v. St. Louis S.W. Ry.*<sup>20</sup> is inappropriate since, once again, the success of plaintiff's case depended on the indulgence of but one inference. In *Clampitt* there are at least two reasons why there can be no quarrel with the result. In the first

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<sup>18</sup> 462 S.W.2d 57 (Tex. Civ. App.—Houston [14th Dist.] 1970, no writ).

<sup>19</sup> 140 S.W.2d 347 (Tex. Civ. App.—Waco 1940, no writ).

<sup>20</sup> 185 S.W. 342 (Tex. Civ. App.—Fort Worth 1916, writ ref'd).

place, plaintiff, on appeal, was contending that his evidence, as a matter of law, established that the railroad car which defendant made available for the shipment of plaintiff's cattle was infected with cholera. A permissible inference, as pointed out above, cannot be given effect as compelling the trier of fact to reach the conclusion for which the person relying on the inference contends. In the second place, the inference on which plaintiff relied was not a valid one. The presence of old bedding in a railroad car is not a sufficient basis, standing alone, for the conclusion that the car was infected with cholera.

These cases, and others<sup>21</sup> in which the establishment of the fact in issue requires the drawing of no more than one inference, furnish no persuasive support for the contention that an inference cannot be based on a fact which is itself inferred.

*Cases in Which the First Inference is Invalid*

If a conclusion rests solely on a series of inferences, the argument which yields the conclusion assumes the following form: If "A" exists, then "B" exists, and if "B" exists, then "C" exists. "A" exists. Therefore, "B" exists and, therefore, "C" exists. If the rule against pyramiding inferences is in fact applicable, then the conclusion concerning the existence of "C" in the oversimplified argument presented above, must be rejected, since it rests on the existence of "B", a fact itself inferred from the existence of "A". Further, the conclusion must be summarily rejected without inquiring whether the inference of the existence of "B" may justifiably be drawn from the fact of "A's" existence, and without inquiring whether the inference of "C's" existence may validly be drawn from the fact of the existence of "B". If the required logical relationship between the existence of "A" and the existence of "B", or between the existence of "B" and the existence of "C" is lacking, then the final conclusion that "C" exists must be rejected. But in this latter case, the conclusion is rejected because one or more of the inferences on which it is based cannot, as a matter of logic, be properly drawn, and not because the conclusion rests on more than one inference.

As already pointed out, there are very few cases in which a factual finding is purportedly rejected because it is the final link in a completely

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<sup>21</sup> See, e.g., *International Travelers' Ass'n v. Bettis*, 120 Tex. 67, 35 S.W.2d 1040 (1931); *Texas & N.O. Ry. v. Pool*, 263 S.W.2d 582 (Tex. Civ. App.—Waco 1953, no writ); *Alamo Cas. Co. v. Stephens*, 259 S.W.2d 729 (Tex. Civ. App.—Austin 1953, writ ref'd n.r.e.); *Williams v. Rearick*, 218 S.W.2d 225 (Tex. Civ. App.—Amarillo 1949, no writ); *Wright v. Dabbs*, 220 S.W.2d 681 (Tex. Civ. App.—Waco 1949, writ ref'd n.r.e.); *Pool v. Joy*, 61 S.W.2d 581 (Tex. Civ. App.—Fort Worth 1933, no writ).



inferential chain which cannot be explained by the fact that one of the inferences in the chain cannot logically be drawn from the fact on which it rests. We will now examine a sample of the cases in which the conclusion is unacceptable because the first inference in the chain is unwarranted. In this discussion, the term "first inference" will be used to designate any inference other than the last, irrespective of the number of inferences involved.

In *Texas & P. Ry. v. Brown*,<sup>22</sup> the plaintiff relied on the doctrine of discovered peril. The supreme court expressed the nature of plaintiff's argument and its reason for rejecting it as follows:<sup>23</sup>

Let us infer that at the time the fireman requested the engineer to whistle (which we cannot do under the facts in evidence) that the Brown car had started toward the south tracks. Would it be permissible in law to further infer that the deceased was intending to continue his movement across the south tracks and on across the north tracks in front of the oncoming train?

In order to place the deceased in a position of peril such an inference must be indulged. This the law will not permit.

The statement that "the law will not permit" indulging the second inference is ambiguous. It can be construed as meaning that the law will not permit the second inference because the fact on which it is based rests on an improper inference. Or, the language may be interpreted as meaning that the second inference is impermissible because it rests on an inferred fact. Whatever be the proper interpretation, and conceding that the context supports the conclusion that the court had the rule against pyramiding inferences in mind, it is clear that the plaintiff's argument was doomed to failure because the first inference in the chain was, according to the court, unwarranted. While the strength of the last link in the chain is questionable as a matter of logic, the court expressly calls our attention to the fatal weakness of the first link. Where the first link is not sufficiently strong to support the conclusion supported by the chain, the number of links between such first link and the conclusion is irrelevant.

In *Texas Sling Co. v. Emanuel*,<sup>24</sup> plaintiff was injured when the pendant line extension on a crane pulled apart, causing the boom and a heavy bucket of concrete to crash to the ground. Judgment for plaintiff was based on findings that the defendant had failed to inspect the

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<sup>22</sup> 142 Tex. 385, 181 S.W.2d 68 (1944).

<sup>23</sup> *Id.* at 394, 181 S.W.2d at 73.

<sup>24</sup> 431 S.W.2d 538 (Tex. Sup. 1968).

splice in the pendant line which failed, and that such failure to inspect was the proximate cause of plaintiff's injury. The only evidence relied on to support the finding that defendant had failed to inspect the splice was the fact that the splice in the line had failed.

The Texas Supreme Court said that in order to support the judgment in favor of plaintiff the following inferences would have to be made: (1) From the fact that the splice failed it would have to be presumed that the splice was defective; (2) from the fact that the splice was defective, it was necessary to infer that the defendant failed to make a proper inspection; (3) and finally, it would have to be inferred that an inspection would have revealed the defect, although there was no evidence of the nature of the defect.

Even if it be conceded that the failure of the line establishes the existence of a defect, it is apparent that the inferences based on the existence of such defect, under the circumstances of the case, cannot be defended. The presence of a defect, at least where both the nature of the defect and the length of time it had existed are unknown, is not a sufficient basis for concluding that defendant failed to inspect the line. This is true regardless of whether the existence of the defect is established by inference or not.<sup>25</sup>

In *St. Louis S. Ry. v. McIntosh & Carlisle*,<sup>26</sup> the evidence showed that about thirty or forty-five minutes before plaintiff's building was discovered ablaze, one of defendant's oil-burning locomotives had passed within sixty-five to seventy feet of the building. Plaintiff argued that this was sufficient to show that a spark from the locomotive had set fire to the building.

The court first pointed out that there was no basis for the assumption that an oil-burning locomotive emitted sparks. This assertion, of course, is fatal to the validity of the first inference. But the court went on to say that even if emission of sparks could be inferred from proof that there was fire in the locomotive, the other necessary inferences could not be indulged since they could not be referred to any fact "proved" but must be founded on the inference that a spark escaped.

In order for plaintiff to succeed, the trier of fact would have to find that the emitted spark was carried sixty-five to seventy feet from the lo-

<sup>25</sup> *Id.* at 540. The inferences are set out in the order in which the supreme court listed them, except for the fact that the first inference, to the effect that the splice was defective, is not included in the supreme court's enumeration. *Id.* at 540. Perhaps a more logical chain of inferences would be: (1) The splice failed, therefore the splice was defective; (2) the splice was defective, therefore an inspection would have revealed the defect; (3) the defect was not discovered, therefore no inspection was made.

<sup>26</sup> 126 S.W. 692 (Tex. Civ. App.—Texarkana 1910, no writ).

comotive to plaintiff's building, and that when the spark reached the building it was still "live." As the court pointed out, there was nothing in the record to indicate that emitted sparks are ever carried for a distance of sixty-five or seventy feet. In effect, the court pointed out that, even if a spark was emitted, the emission formed no basis for indulging the next inference. If this statement is correct, the manner in which the fact of emission of sparks was established, whether by inference, direct testimony or stipulation, would be immaterial.

*Tull v. St. Louis S. W. Ry.*<sup>27</sup> rejected plaintiff's argument in support of his theory of discovered peril. Plaintiff's theory being that the fact that the engineer of defendant's train blew his whistle supported the conclusion that the engineer saw plaintiff in a position of peril in time to avoid striking plaintiff by use of the means at his command and had failed to resort to such means. The first inference was rejected by the court because, under the circumstances present in that case, it was just as reasonable to conclude that the engineer blew the whistle as a warning because he was approaching a crossing as it was to assume that the whistle was sounded because the engineer had seen plaintiff. That is, plaintiff's hypothesis was, according to the court, no more probable than another reasonable hypothesis which could be predicated on the fact that the whistle had been sounded. Proof that the existence of a fact is evidence of the existence of either fact "X" or fact "Y" is not, in legal contemplation, evidence of the existence of either "X" or "Y".

In *Stokes v. Burlington Rock Island Ry.*,<sup>28</sup> plaintiff contended that the injury to his shipment was caused by a defective or broken staple on a railroad car furnished by one of defendants. The only evidence offered by plaintiff tending to show the presence of a defective staple before the accident was evidence to the effect that an inspection made after the accident revealed the presence of a broken staple. The court refused to make the inference, from this fact, that the staple was defective before the accident because, under the circumstances, it was just as reasonable to infer that the defect was caused by the accident itself. This invalid inference, of course, could not serve as the basis for any further inferences.

In *Miller & Miller Motor Freight Lines v. Hunt*,<sup>29</sup> plaintiff's infant daughter was killed when she was run over by one of defendant's trucks. Plaintiff's theory was that the girl had been struck by a dolly wheel

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<sup>27</sup> 87 S.W. 910 (Tex. Civ. App.—Dallas 1905, no writ).

<sup>28</sup> 165 S.W.2d 229 (Tex. Civ. App.—Waco 1942, writ ref'd w.o.m.).

<sup>29</sup> 242 S.W.2d 919 (Tex. Civ. App.—Amarillo 1951, no writ).

crank on the truck which extended beyond the truck bed, and that as a result the girl was thrown to the pavement under the wheels of the truck. The court accepted as proven the fact that the child's dress was torn and that, as testified to by one witness, the dolly wheel crank "was in a position to where it could have torn the dress."<sup>30</sup> The first inference which plaintiff was called upon to defend was that the dolly crank had struck the child. Even under the facts which the court regarded as established without the aid of inferences, this conclusion is untenable, since the evidence cannot be said to do more than establish the possibility that the girl was struck by the crank. The facts do not support the first inference.

Another example of an invalid initial inference is found in *Thomas v. Missouri-K.-T. Ry.*,<sup>31</sup> where plaintiff was seeking recovery for the accidental death of her husband by drowning. There was testimony showing that the deceased voluntarily entered the water for the purpose of going swimming. Two witnesses testified that they saw the deceased enter the water, and that a short while later they heard his cries for help. Plaintiff contended that the fact that deceased could not swim supported the inference that he slipped or was knocked into the water. The only basis for the finding that deceased did not know how to swim was the testimony of one witness that, over a period of seven years, deceased had on two occasions refused to join others in swimming. This evidence cannot be deemed to be of sufficient probative force to permit the conclusion that deceased did not know how to swim.

There are cases in which the courts speak of building inferences upon inferences in which the court improperly treats the finding of negligence as an inference. For example, in *Latimer v. Walgreen Drug Co. of Texas*,<sup>32</sup> the court, after pointing out that the finding that defendant's employees had placed lumber on the sidewalk could be reached only by inference from the fact that, after the accident, defendant's employees had removed the lumber, pointed out that even if such inferences were indulged, it would have to be "inferred" that the placing of the lumber on the sidewalk constituted negligence.<sup>33</sup>

It is clearly erroneous to treat the finding of negligence as being inferred from the fact that defendant engaged in certain conduct. The finding of negligence is but an evaluation of defendant's conduct in accordance with the ordinary prudent man standard. In a "failure to

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<sup>30</sup> *Id.* at 922.

<sup>31</sup> 178 S.W.2d 881 (Tex. Civ. App.—Galveston 1944, writ ref'd w.o.m.).

<sup>32</sup> 233 S.W.2d 209 (Tex. Civ. App.—Amarillo 1950, no writ).

<sup>33</sup> *Id.*

warn" case, for example, it cannot be said that the finding of negligence is inferred from the fact that defendant failed to give a proper warning unless we are prepared to advance the untenable proposition that defendant's failure to warn is evidence which would support the conclusion that, under similar same circumstances, an ordinary prudent man would have given a warning.<sup>34</sup>

*Cases in Which the Second Inference is Invalid*

Several of the cases discussed above as involving an invalid initial inference could also have been disposed of by pointing out that, even if the validity of the first inference be conceded, the fact thus inferred could not, even if it had been established by stipulation or direct testimony, support the second inference.<sup>35</sup> Actually, it can be said that most of the cases involving an unwarranted second inference also involve an unjustified initial inference.

In *Briones v. Levine's Department Store, Inc.*,<sup>36</sup> plaintiff's recovery depended on a jury finding to the effect that a lawn mower over which she tripped "was 'amongst the clothes on a clothes rack.'"<sup>37</sup> The aisle in which plaintiff was shopping was formed by a display table and the clothes rack. When she was at one end of the display table, plaintiff backed into the lawn mower. Five members of the supreme court held that even if it could justifiably be inferred that the clothes rack ran the full length of the display table, the second inference,<sup>38</sup> to the effect that the lawn mower over which plaintiff tripped was "amongst the clothes" in the clothes rack, could not be indulged because the law does not permit the pyramiding of inferences.

If we consider the case in the light of the evidence as summarized in the majority opinion, the setting aside of the challenged jury finding relating to the location of the lawn mower was justified. Even if the evidence had conclusively established that the clothes rack ran the full length of the display table, this fact is insufficient to support the finding that the lawn mower was among the clothes in the rack. Stated differently, the inference that the lawn mower was among the clothes in the rack cannot be drawn fairly from the fact that both the lawn mower and the clothes rack were behind plaintiff.

<sup>34</sup> See also *Green v. Texas & P. Ry.*, 125 Tex. 168, 81 S.W.2d 669 (1935), where it was said that, in order for plaintiff to recover, negligence would have to be inferred from the fact that defendant had allowed the rail to remain at the scene of the accident for two months.

<sup>35</sup> See text accompanying notes 24 & 27, *supra*.

<sup>36</sup> 446 S.W.2d 7 (Tex. Sup. 1969).

<sup>37</sup> *Id.* at 10.

<sup>38</sup> The court used the terms "infer" and "inference" instead of "presume" and "presumption."

In *Continental Casualty Co. v. Fountain*,<sup>39</sup> recovery was sought under an accidental death policy. The court said that in order to conclude that the death of the insured resulted solely from an accidental injury,

[w]e must (1) infer from the direct testimony that at the time of the accident . . . deceased was a strong healthy man. But we cannot stop there. We must go further and (2) infer that since he was a strong healthy man when the accident occurred, it follows that the accident must have been the sole cause of his death. This process of piling one inference upon another is not permitted under the law.<sup>40</sup>

In *Fountain* the insured died of generalized carcinomatosis, with the antecedent cause, according to the medical testimony, being cancer of the kidney. The injury which was alleged to be the sole cause of the death of insured consisted of a fracture of the left arm. Under the rules of causation applicable, at least to cases where cancer is involved, there must be medical testimony to the effect that the cancer, in "reasonable medical probability," resulted from the incident in question.<sup>41</sup> Under such a rule concerning the quantum of proof required, the inference that the fracture of the left arm of the insured was the sole cause of his death from cancer must be rejected. Plaintiff in *Fountain* failed, not because of the number of inferences involved, but because a finding that an injury to the arm produced cancer can be based only on expert testimony.

#### A PRESUMPTION CANNOT BE BASED UPON A PRESUMPTION

One of the earliest cases correctly using the term "presumption" and stating that a presumption cannot be based on another presumption is the 1875 decision by our supreme court in *Sulphen v. Norris*.<sup>42</sup> There, the plaintiff relied on a long period of possession to raise the presumption of a grant from the sovereign (Spain) to plaintiff's predecessors in title. The court held that the trial court erred in refusing to instruct the jury that in proving title by presumption of a grant from the

<sup>39</sup> 257 S.W.2d 338 (Tex. Civ. App.—Dallas 1953, writ ref'd).

<sup>40</sup> *Id.* at 344. It can be argued that the first inference was improper, since it was based solely on the testimony of the widow to the effect that she never heard insured complain "of any portion of his body." *Id.* at 343.

<sup>41</sup> *Insurance Co. of North America v. Myers*, 411 S.W.2d 710, 713 (Tex. Sup. 1966). "Causal connection in such a fact situation must rest in reasonable probabilities; otherwise, the inference that such actually did occur can be no more than speculation and conjecture." *Id.* at 713. See also *Parker v. Employers Mut. Liab. Ins. Co.*, 440 S.W.2d 43 (Tex. Sup. 1969). All of the medical testimony in *Fountain* was to the effect that the injury to the arm could not have been a cause of the fatal cancer.

<sup>42</sup> 44 Tex. 204 (1875).

sovereign, plaintiff had the burden of showing that the grantee in the presumed grant was a competent person to receive such grant, and that such fact must be shown by either positive or circumstantial evidence, and not by reliance on a "mere" presumption. Under applicable Spanish law, a foreigner could not receive a grant of land from the sovereign.

The supreme court said that when a party relies on the presumption of a grant based on long possession, "it would be going too far to base that presumption upon another presumption, to-wit, that the party was competent to take. A presumption cannot for its support rest upon another presumption."<sup>43</sup>

According to the opinion, then, the presumed fact is that of a grant from the sovereign, and this presumption will arise only if the person seeking the aid of the presumption establishes (1) long possession and (2) the existence of a person competent to take. In *Norris*, neither of the two facts necessary to give rise to the presumption was established. The evidence showed that the purported grantee was not a Spanish citizen, and there was no evidence of actual possession. This interpretation leads to the conclusion that only one presumption was involved, and that single presumption could not be indulged because the facts on which it was based were not established.

It is possible to treat the *Norris* case as involving two presumptions. It can be argued that the chain of argument is as follows: (1) From the fact of long possession, the competency of the grantee will be presumed. (2) The existence of a competent grantee raises the presumption of a grant. But, even if the problem is viewed in this light, the fallacy lies not in predicating a presumption upon a presumed fact. Plaintiff was doomed to failure because (1) the actual possession necessary to raise the presumption of the existence of a competent grantee was lacking; and (2) the evidence showed that the presumed grantee was not a Spanish citizen and that, therefore, the fact upon which the second presumption rested did not exist.<sup>44</sup> Despite the above analysis, it is clear that the supreme court viewed the case as one involving the pyramiding of presumptions; since it reversed the judgment in favor of plaintiff because the trial court failed to instruct the jury that a presumption could not rest upon a presumption.

<sup>43</sup> *Id.* at 244.

<sup>44</sup> In *Taylor v. Watkins*, 26 Tex. 688 (1863), it was said that in order to have a presumption of grant it must be established that the chain of title could have had a legal inception. That is, it must be shown that a legal grant could have been made.

In *Longhorn Drilling Corp. v. Padilla*,<sup>45</sup> plaintiff sought to impose liability on the owner of a motor vehicle which, at the time of the injury, was being operated by a person other than the owner. Plaintiff relied on the doctrine, sometimes regarded as a true presumption,<sup>46</sup> which raises a presumption of the driver's agency for the defendant and that the driver, at the time of the injury, was acting within the scope of his employment. The court said:

However, whether the matter of ownership be treated as resting upon a presumption or as otherwise established, the court was not authorized to presume that the driver of the truck on the occasion in question was the agent of the defendant and then to further presume that such agent was at the time acting within the scope of his employment. A presumption of fact cannot rest upon a fact presumed. But the fact relied upon to support a presumption must be proved.<sup>47</sup>

In view of the use of the words "presumption of fact" in such passage, it is difficult to determine whether the court felt it was dealing with true presumptions since, as has been noted, those words are often used to refer to permissible inferences.<sup>48</sup>

Although it has been said that the rule against basing one presumption upon another rests on firmer ground than the rule which prohibits

<sup>45</sup> 138 S.W.2d 164 (Tex. Civ. App.—Eastland 1940, writ dismissed).

<sup>46</sup> 9 J. WIGMORE, EVIDENCE § 2510a (3d ed. 1940). Cf. 1 B. JONES, EVIDENCE § 64 (5th ed. 1958). "The implication of agency from mere ownership scarcely rises to the dignity of a presumption but is ordinarily a rather reluctantly recognized permissive inference." 1 B. JONES, EVIDENCE § 64, at 112 n.14 (5th ed. 1958). In *Cruse-Crawford Mfg. Co. v. Rucker*, 123 So. 897 (1929), noted, 8 TEXAS L. REV. 416 (1930), it was said that the presumption is a mere administrative presumption and is not even an inference of fact.

In Texas, the doctrine has not only been described as a presumption, but our supreme court has also used language describing its procedural effect in a manner which is, to some extent at least, consistent with its being considered a true presumption. "The presumption is a true presumption, which has been defined as 'a rule of law laid down by the courts which attaches to facts certain procedural consequences.' (Citation omitted.) It places on the party against whom it operates the burden of producing evidence. It is not evidence and when met by rebutting proof is not to be weighed by the jury or treated by the jury as evidence in arriving at a verdict." *Empire Gas & Fuel Co. v. Muegge*, 135 Tex. 520, 528, 143 S.W.2d 763, 767 (1940).

<sup>47</sup> *Longhorn Drilling Corp. v. Padilla*, 138 S.W.2d 164, 167 (Tex. Civ. App.—Eastland 1940, writ dismissed).

<sup>48</sup> The precise holding to the effect that the presumption of agency which arises from proof of ownership will not support the subsequent presumption as to scope of employment has not been consistently followed in Texas. See *Henderson Drilling Corp. v. Perez*, 304 S.W.2d 172 (Tex. Civ. App.—San Antonio 1957, no writ). It should be noted that in *Empire Gas & Fuel Co. v. Muegge*, 135 Tex. 520, 143 S.W.2d 763 (1940), the supreme court, after referring to the fact that proof that the vehicle is registered in the defendant's name raises the presumption that it was owned by defendant, said that if evidence had shown that the driver of the truck was defendant's employee the further presumption "would have been raised that such driver was acting within the scope of his employment." *Id.* at 527, 143 S.W.2d at 767.



basing an inference on an inference,<sup>49</sup> the rule against pyramiding presumptions is not easily defended. If the existence of "A" compels the finding that "B" exists, the existence of "B" is conclusively established in the absence of rebutting testimony. It makes little sense to insist that a fact which, in legal contemplation, has been conclusively established cannot form the basis for a presumption.

If sufficient evidence rebutting the existence of "B" is introduced, the presumption is said to disappear. This means that, even if the existence of "A" is established, the fact finder is no longer compelled to conclude that "B" exists. If "A" has probative value as evidence of the existence of "B", the conclusion that "B" exists, although no longer compelled, will be upheld.<sup>50</sup>

#### CASES REJECTING OR IGNORING THE RULES

The Texas Supreme Court in *West v. Hapgood*,<sup>51</sup> after pointing out

<sup>49</sup> Annot., 5 A.L.R.3d 100, 105 (1966).

<sup>50</sup> The exact procedural consequence of the introduction of evidence rebutting the existence of the presumed fact has been the subject of much discussion, generally confusing and contradictory, by courts and commentators. What is generally referred to as the Thayer-Wigmore view is that the introduction of rebuttal testimony causes the presumption to drop out of the case, although if the facts upon which the presumption is based have probative value as evidence of the existence of the presumed fact it can be considered by the jury as the basis of a permissible inference. J. THAYER, A PRELIMINARY TREATISE ON EVIDENCE AT COMMON LAW 314, 317, 346 (1898); 9 J. WIGMORE, EVIDENCE § 2491 (3d ed. 1940).

Other respected authorities have taken the position that a presumption should be accorded greater weight. For example, Professor Morgan supports the view that the presumption should remain operative until the opponent introduces evidence sufficient at least to establish that the non-existence of the presumed fact is as probable as its existence. Morgan, *Instructing the Jury Upon Presumptions and Burden of Proof*, 47 HARV. L. REV. 59 (1933). The cases are collected in 5 A.L.R.3d 19 (1966).

The Texas cases are not in agreement on this point. In *Southland Life Ins. Co. v. Greenwade*, 138 Tex. 450, 159 S.W.2d 854 (1942), the language of the opinion leaves little doubt that the supreme court was adopting the Thayer-Wigmore view. But in *Empire Gas & Fuel Co. v. Muegge*, 135 Tex. 520, 143 S.W.2d 763 (1940), the supreme court expressed approval of the opinion in *Houston News Co. v. Shavers*, 64 S.W.2d 384 (Tex. Civ. App.—Waco 1933, writ ref'd), commenting that the refusal of the application for writ of error by the supreme court amounted to an approval of the *Shavers* holding. In *Shavers*, it was said: "[The presumption], however, is a mere rule of procedure and . . . vanishes when positive evidence to the contrary is introduced. . . . The effect of the rule is to 'smoke out' the defendant. . . . When, however, he discloses the true facts within his possession and such evidence is positive to the effect that the servant was not engaged in his master's business at the time of the injury, the presumption is nullified and the burden is then upon the plaintiff to produce other evidence or his cause fails." *Id.* at 386 (emphasis added). See the discussion of *Greenwade* in *Page v. Lockley*, 176 S.W.2d 991, 997 (Tex. Civ. App.—Eastland 1943), *rev'd*, 142 Tex. 594, 180 S.W.2d 616 (1944).

It would probably be idle to attempt to distill a general rule even from the cases within a single jurisdiction. It has been suggested that the effect of a presumption when rebuttal evidence is introduced should depend and vary with the considerations upon which that presumption is based. It can be persuasively argued that "the only way to come to an even approximate rationalization of the cases within a jurisdiction is to classify them according to the particular presumption under consideration." Annot., 5 A.L.R.3d 10, 25-26 (1966).

<sup>51</sup> 141 Tex. 576, 174 S.W.2d 963 (1943).

that the challenged finding did not require indulging more than one "presumption,"<sup>52</sup> added: "But if it can be correctly said that . . . [i]t involves the drawing of two presumptions . . . , we believe that is justified by the very long period of time and the other facts and circumstances of this case. . . ."<sup>53</sup> Essentially the same thought was expressed in *Phoenix Refining Co. v. Powell*,<sup>54</sup> where the rule against basing an inference on an inference was described as merely "a shorthand rendition of the rule which requires that verdicts be based upon more than surmise and guesswork."<sup>55</sup>

There are cases where the rules are simply violated without being mentioned, as in *Henderson Drilling Corp. v. Perez*,<sup>56</sup> where, from the single fact that the name of the defendant appeared on a motor vehicle, the following conclusions were drawn: (1) The vehicle was owned by the defendant; (2) the driver of the vehicle was defendant's agent; (3) such agent was acting within the scope of his employment. It is true that statements can be found to the effect that the rules do not prevent the drawing of several conclusions from the same fact.<sup>57</sup> But resort to such explanations cannot camouflage what was done in *Perez*. The fact of ownership of the vehicle by the defendant is clearly assumed from the fact that defendant's name appears on the vehicle.<sup>58</sup> The assumption that the driver is the agent of defendant is clearly dependent on the assumed fact of ownership by defendant, unless we are prepared to insist that the appearance of defendant's name on the vehicle justifies the conclusion that the driver is defendant's agent irrespective of whether defendant is the owner of the vehicle. Just as clearly, the final assumption that the driver was acting within the scope of his employment is based on the assumed fact of agency, since it would be facetious to speak of a person acting in the scope of a non-existent employment.<sup>59</sup> All this was done without mentioning either of the anti-pyramiding rules.

The same thing was done in *Boudreax v. Taylor*,<sup>60</sup> where the court,

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<sup>52</sup> Perhaps the court should have used the term "inference."

<sup>53</sup> *West v. Haggood*, 141 Tex. 576, 590, 174 S.W.2d 963, 971 (1943).

<sup>54</sup> 251 S.W.2d 892 (Tex. Civ. App.—San Antonio 1952, writ ref'd n.r.e.).

<sup>55</sup> *Id.* at 902.

<sup>56</sup> 304 S.W.2d 172 (Tex. Civ. App.—San Antonio 1957, no writ).

<sup>57</sup> *Carney v. Kroger Co.*, 455 S.W.2d 329 (Tex. Civ. App.—Houston [1st Dist.] 1970, writ ref'd n.r.e.).

<sup>58</sup> See note 44, *supra*, as to whether the assumption is a presumption or an inference.

<sup>59</sup> The existence of this chain of assumptions, each resting on the preceding one, was clearly recognized and condemned in *Longhorn Drilling Co. v. Padilla*, 138 S.W.2d 164 (Tex. Civ. App.—Eastland 1940, writ dism'd), discussed in text accompanying notes 43-46, *supra*.

<sup>60</sup> 353 S.W.2d 901 (Tex. Civ. App.—Waco 1962, no writ).

after indulging the presumption of the validity of a marriage, used such marriage as the basis for indulging the presumption of legitimacy.

#### CONCLUSION

Even the most caustic critics of the rules here under consideration will admit that all allusions to those rules cannot be discarded as mere dicta.<sup>61</sup> But it is believed that the Texas cases discussed above, which are considered to be a fair sampling of the decisions in which one or the other rule is mentioned, support the conclusion that cases in which the rules are actually applied are extremely rare. That is, the number of cases in which a fact finding is set aside merely because it is dependent on the indulgence of two valid inferences, is, in comparison to the number of cases which contain language condemning the basis of an inference upon an inferred fact, insignificant. In all other cases, the incantation of the ritualistic formulae serves no useful purpose other than to disguise the true reason for an otherwise defensible conclusion that the evidence relied on to support a particular fact finding does not measure up to standards relating to *quantum*, as opposed to *method* of proof.

In the case of the anti-pyramiding rules, familiarity, born of unnecessary repetition, breeds fondness rather than contempt. The emotional ties which bind the courts to the rules are so strong that, occasionally, a court will pay homage to them in a case which does not involve the problem of sufficiency of the evidence to support a finding. For example, in *Alamo Casualty Co. v. Stephens*,<sup>62</sup> the court, after upholding the exclusion of evidence on the ground that the evidence did not tend to prove that defendant deliberately set fire to his own building, devoted a full paragraph to an unnecessary invocation of the rules forbidding building inferences upon inferences and basing presumptions upon presumptions.<sup>63</sup> No point involving the sufficiency of the evidence to support a fact finding was before the court.

There can be no disagreement with a rule which requires that a finding based on nothing more than speculation and conjecture be rejected, and it appears that this was the theory upon which the rules

<sup>61</sup> See, e.g., 1 J. WIGMORE, EVIDENCE § 41 (3d ed. 1940).

<sup>62</sup> 259 S.W.2d 729 (Tex. Civ. App.—Austin 1953, writ ref'd n.r.e.).

<sup>63</sup> *Id.* As described by the court, the rejected evidence consisted of testimony to the effect that plaintiff, when intoxicated, was abusive toward women. The testimony was offered in support of the insurer's contention that plaintiff had willfully set fire to his own building which was insured against loss by fire. The jury found that plaintiff had not set fire to the building.

were originally based.<sup>64</sup> But the categorical form in which the rules are stated today compels the conclusion that the courts have lost sight of the reason for the rules. If the rules are enforced, a fact finding must be arbitrarily rejected with no inquiry being made concerning the probative value of the facts and circumstances upon which the ultimate conclusion is based.

It cannot be denied that the probability of the existence of the ultimate fact decreases as the number of inferences, compelled or permissive, upon which its existence depends increases. Thus, if given the existence of "A", the probability that fact "B" exists can be expressed by the fraction 9/10, and if, given the existence of "B", the probability that "C" exists can be expressed by the fraction 9/10, the probability that, given the existence of "A", "C" also exists must be expressed by the fraction 81/100. To reject the conclusion in such a case by arbitrary application of either one of the rules is to reject the finding of the existence of "C" even though the probability of its existence is slightly more than four times greater than the probability of its non-existence.

Questions concerning the sufficiency of the evidence should not be determined by reference to an arbitrary rule which completely ignores the probative value of the evidence. Instead of counting the steps in the reasoning process which led to the ultimate conclusion and automatically rejecting the conclusion if more than one step is involved, the courts should evaluate all of the circumstances and attempt to determine whether the probability of the existence of the ultimate fact is sufficiently high to justify the finding of its existence. The number of links in the chain of reasoning is, of course, a relevant, but not a decisive factor. Such an approach is consistent with the statement by the Texas Supreme Court in *West v. Hapgood*<sup>65</sup> to the effect that, in certain cases, the evidence may be strong enough to justify the drawing of more than one inference. Such an approach will also enable the courts to reject findings which are based on mere speculation and conjecture. The rule that findings of fact must be based on probabilities, rather than mere possibilities, will stand unimpaired.

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<sup>64</sup> See *United States v. Ross*, 92 U.S. 281, 23 L. Ed. 707 (1875); T. STARRIE, *EVIDENCE* 90 (9th Amer. ed. 1869).

<sup>65</sup> 141 Tex. 576, 174 S.W.2d 963 (1943).