EUNOMICS is "the science, theory, or study of good order and workable arrangements."¹ It fuses the values of law with the empirical data and methods of the objective sciences. Accordingly, justice—a primary value of law—is to be understood and attained as a function of scientific data and methodology. If lawyers are concerned with justice, they will find new understandings in the developments of eunomics. This essay demonstrates the inter-relationship of justice and scientific method, and is an example of the potential power of eunomics.

The particular area of justice dealt with here involves grievances of individuals and non-represented unions (in contrast with grievances submitted by unions with membership representation) on the National Railroad Adjustment Board, First Division.

THE NATIONAL RAILROAD ADJUSTMENT BOARD, FIRST DIVISION

This Board was created by Congress in 1934 "to provide for the prompt and orderly settlement of all disputes growing out of grievances or out of the interpretation or application of agreements covering rates of pay, rules or working conditions."² The First Division of the Board has jurisdiction over disputes involving train and yard service employees of carriers,³ and is composed of five

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¹ The term "eunomics" was coined by Professor Lon L. Fuller. See Fuller, American Legal Philosophy at Mid-Century, 6 J. LEGAL ED. 457, 477 (1954). Treatment of the concept is the responsibility of the author alone.


³ The Board as a whole is composed of 4 divisions whose proceedings are in-
carrier representatives and five representatives of “national-in-scope” labor organizations. Decision is by majority vote. Should the bipartisan board deadlock, provision is made for appointment of a neutral referee.

The Board has a history of predecessor agencies going back at least to 1918. Until about 1946, only disputes appealed by one or more of the “national-in-scope” or “regular” unions would be docketed and decided by the Board. Grievances of individuals or of “non-regular” or “outside” unions would not be handled. Since 1946, however, the Board has docketed and determined such grievances.

In this brief description of the Board, it should be noted that the Board’s awards are “final and binding upon both parties to the dispute, except insofar as they may contain a money award.” Of singular importance is the decision by the United States Supreme Court in the Slocum case that there is “a denial of power in any court—state as well as federal—to invade the jurisdiction conferred on the adjustment board by the Railway Labor Act.” As stated by Mr. Justice Black: “We hold that the jurisdiction of the Board to adjust grievances and disputes of the type here involved is exclusive.”

This Slocum holding was in the teeth of Mr. Justice Reed's documented and realistic dissent portraying the utter lack of due process of law in the proceedings of the Board:

Congress surely would not have granted this exclusive primary power to adjudicate contracts to a body like the Board. It consists of people chosen and paid, not by the government, but by groups of carriers and the large national unions. Congress has furnished few procedural safeguards. There is no process for compelling the attendance of witnesses or the production of evidence. There is no official record, other than that of the informal pleadings. Hearings are conducted without witnesses. The Board has operated without giving individuals a chance to be heard

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6 Id. at 244.
unless they were represented by unions. The extent of judicial review of awards other than money awards is doubtful, and it is highly questionable whether even a money award can be reviewed in the courts if only the carrier wishes review. Most important, the statute provides no relief for a petitioning party—be he union, individual, or carrier—against an erroneous award of the Board. This court may be hard put to protect the rights of minorities under these circumstances.\footnote{id:251-52}

Thus it is apparent that individuals and outside unions have no recourse or remedy for ordinary grievances against the carriers other than through the machinery of the Board; that traditional safeguards of due process of law are lacking in the procedures of the Board; and that the Board is bi-partisan in composition, without representation of outside unions or individual claimants.

**Behavioral Systems Theory and Hypotheses**

Conceptually, the Board may be viewed as a behavioral system and as possessing the properties of such. In brief, a behavioral system exists in space-time; has calculable boundaries; is made up of parts or subsystems; has energy interchange, inputs and outputs, crossing the boundaries between the system and its environment; has energy interchange among its parts or subsystems; tends to maintain a state of equilibrium internally amongst its subsystems; and tends

\footnote{\textit{Id.} at 251-52. In support of his statements, Mr. Justice Reed cited: Railway Labor Act § 3 First (a) (b) (c) (g) (m) (p), 48 Stat. 1191 (1934), 45 U.S.C. § 153 First (a), (b), (c), (g), (m), (p) (1952); Monograph of the Att’y Gen’s Comm. on Administrative Procedure, Part 4, \textit{Railway Labor}, S. Doc. No. 10, 77th Cong., 1st Sess. 11-14 (1941); Tunstall \textit{v.} Brotherhood of Locomotive Firemen & Enginemen, 323 U.S. 210 (1944); Steele \textit{v.} Louisville & N.R.R., 323 U.S. 192, 206 (1944); Shilds \textit{v.} Utah I. Cent. R.R., 305 U.S. 177 (1939); Edwards \textit{v.} Capital Airlines, 176 F.2d 755, 759-60 (D.C. Cir. 1949); Washington Terminal Co. \textit{v.} Boswell, 124 F.2d 225 (D.C. Cir. 1941), aff’d, 319 U.S. 732 (1942); Howard \textit{v.} Thompson, 72 F. Supp. 695 (E.D. Mo. 1947); State \textit{ex rel.} St. Louis-S.F. Ry. \textit{v.} Russell, 358 Mo. 1136, 219 S.W.2d 340 (1949); Garrison, \textit{The National Railroad Adjustment Board: A Unique Administrative Agency}, 46 \textit{Yale L.J.} 567, 576-81 (1937).

to maintain a state of balance externally with its environment.\textsuperscript{8}

The Board, viewed as a behavioral system, exists in space-time; has boundaries separating it from carriers, unions, courts, and other institutions; is made up of its carrier and union parts or subsystems; has input grievances and output awards crossing the boundaries between itself and the railroad and external environment; has interaction or energy interchange between its parts or subsystems in the disposition of grievances and other matters; and copes with internal and external stresses and tensions as it strives to maintain internal equilibrium and external balance in processing the input grievances into output awards.\textsuperscript{9}

From general theoretical notions of behavioral systems theory, it seemed that Board awards would tend to be made in the direction of minimizing strain and promoting internal equilibrium and external balance. Claims on the part of individuals, passing by or rejecting the regular union representation, if sustained, would be peculiarly stressful and strain producing to the regular union representation. It was thought, moreover, that individual claims, if sustained, would be strain producing to the carriers, at least financially. Similar reasoning suggested that it would be strain reducing to both union and carrier subsystems to have outside union claims rejected, and that it would be strain increasing to have them sustained.

From these theoretical bases, a number of hypotheses were made:

(a) It would be strain reducing on both the union and carrier subsystems to have individual and outside union claims rejected.

(b) Disproportionately fewer individual and outside union cases than regular cases would be deadlocked for referee disposition.

(c) Viewing the referee as a component subsystem of the Board, there would be a tendency for the referee to minimize strain by denying disproportionately more individual and outside union cases than regular ones.

(d) Practical difficulties in achieving congruent and harmonious


awards within a precedential system respecting *stare decisis* would create tensions and that such tensions would be reduced by dismissing, without substantive decision, disproportionately more individual and outside union cases than regular cases.

**FINDINGS**

A total of 180 cases involving individuals and outside unions have been found through a check of the published awards of the Board. Of the 180 cases, 53 involved "outside union" and 127 involved "individual" cases.10 This compares with approximately 8500 "regular" cases determined by the Board in the same period, June 1946-June 1960. Tables 1 and 2 show the disposition of cases by the Board.

**TABLE 1**

<table>
<thead>
<tr>
<th></th>
<th>Denied</th>
<th>Dismissed</th>
<th>Compromised</th>
<th>Sustained</th>
<th>Referred</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Union</td>
<td>49.0%</td>
<td>13.2%</td>
<td>5.7%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Individual</td>
<td>30.3%</td>
<td>55.7%</td>
<td>0.0%</td>
<td>0%</td>
<td>4.0%</td>
<td>100%</td>
</tr>
<tr>
<td>Regular</td>
<td>20.9%</td>
<td>6.4%</td>
<td>1.0%</td>
<td>25.5%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Estimated. Services: Annual Reports, National Mediation Board. Also, published Index, and reports by Association of Western Railroads.*

**TABLE 2**

<table>
<thead>
<tr>
<th></th>
<th>Denied</th>
<th>Dismissed</th>
<th>Compromised</th>
<th>Sustained</th>
<th>Referred</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Union</td>
<td>29.4%</td>
<td>52.9%</td>
<td>11.8%</td>
<td>0%</td>
<td>100%</td>
<td>17</td>
</tr>
<tr>
<td>Individual</td>
<td>30.4%</td>
<td>0.0%</td>
<td>5.3%</td>
<td>0%</td>
<td>100%</td>
<td>19</td>
</tr>
<tr>
<td>Regular</td>
<td>67.8%</td>
<td>4.3%</td>
<td>8.5%</td>
<td>24.2%</td>
<td>100%</td>
<td>1445</td>
</tr>
</tbody>
</table>

*Estimated. Services: Annual Reports, National Mediation Board. Also published Index, and reports by Association of Western Railroads.*

10 An "individual" case may involve one or more individual claimants; an "outside union" is a union without representation on the union side of the First Division of the Board. The individual and outside union awards are the following (asterisk* indicates outside union case, no asterisk indicates individual case, R indicates Referee decision, C indicates compromise decision, S indicates sustainal decision, and except for sustainal and compromise notations, all are dismissed or denied cases): 11745*, 14180, 14577R, 14690*, 14762*R, 14794, 14964*R, 15158, 15195, 15299*R, 15413, 15497, 15888RC, 15989, 15981*, 16145, 16271, 16273, 16221, 16426R5, 16478, 16479, 16548*, 16563*, 16593*, 16598, 16637, 16694*, 16714*, 16715, 16768, 16775, 16776*, 16833, 16835, 16836, 16837, 16843, 16844, 16871, 16875, 16877, 16899, 16928, 16946, 17084, 17179, 17203, 17204, 17205, 17244, 17245, 17316, 17346, 17386, 17421, 17464, 17473, 17496R, 17574, 17598, 17625, 17639, 17654*, 17679, 17698, 17699*, 17721, 17737, 17757*, 17765*, 17766*, 17767*, 17768*, 17769*, 17777, 17805*, 17806*, 17807*, 17808*, 17809*, 17815*, 17818, 17828, 17835, 17836, 17837, 17893, 17894, 17899, 17900, 17902, 17924, 17969, 17970, 17971, 17978, 18530, 18531, 18566, 18568, 18584*C, 18604,
All hypotheses were clearly confirmed. There was just one individual case and just one outside union case sustained. Neither sustained was by the Board without referee. Fewer individual (15%) and outside union (32%) cases were deadlocked than in regular (70%) cases. Referees sustained fewer individual (5%) and outside union (6%) cases than regular cases (24%). Without referee, the Board dismissed individual (46%) and outside union (13%) cases in greater proportion than regular cases (6%); and with referee, the percentages for individual cases were (0%), outside union (53%), and regular (4%).

Of special significance is the finding of only two (2) cases sustained out of 180 individual and outside union awards.

Of course, the statistics do not tell us whether the particular awards reached in the particular cases were just or unjust. Whether, or to what extent, the disposition of the individual and outside union cases reflects an inherent lack of merit in these cases, or reflects the operation of the theorized behavioral system tendency toward strain reduction, is a troublesome but basic question. Competent and knowledgeable persons, experts in the field, served as members of the Board and presumably would not intentionally and deliberately make erroneous and unjust awards. Especially might one assert such a statement of the neutral referees on the Board.

In the judgment of this investigator, however, the grievances of the individual and outside union employees were basically similar to the regular cases in statement of claim, statement of facts, positions of parties, and collective bargaining provisions relied upon. It is interesting to note that in 28 cases, the claims were rejected to reach results consistent with conclusions already in effect between the duly authorized representative of the employees and the carriers; and that in 19 cases the Division found it advisable to word its decisions so as to preclude precedential force in its awards.\[12\]

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11 Thus, the Board held: "This award is not to be cited or used as a precedent in
All things considered, including a generous allowance for possible lack of merit in the cases, it appears to this investigator that the results reached in the cases are to be attributed in significant degree to the operation of the theorized behavioral system tendency toward strain reduction. This tendency may operate in subtle ways, affecting how the Board perceives facts and arguments in the particular cases. Thus, where in a regular case the Board member may fail to note or give weight to procedural defects, such defects loom large and even fatal in the individual and outside union case. It is consistent to state, therefore, that the results noted in Tables 1 and 2 can be questioned as to their intrinsic justice and that the members of the Board, including referees, can be above question in their good faith, dedicated performance of their roles.

Justice Through Equilibrium

Eunomics, it will be recalled, calls for a good or just ordering of grievances within workable arrangements. In perspective, the 180 individual and outside union cases passed upon since 1946 are less than 2% of the approximately 8,500 cases on the docket of the Board, and the regular cases may be expected to be the bulk of the docket in the future. The bi-partisan composition of the Board tends towards equal tensions in the directions of sustainail awards (on the part of the union sub-system) and denial awards (on the part of of the carrier subsystem). It is thought that the tendency toward equilibrium should be maintained for the regular docket. A proper solution to the problem of justice for individuals and outside unions should be reached without damaging the normal procedures or structure of the Board.

any other case. Awards Nos. 15898, 16563, 16593, 16667, 16714, 16715, 16776, 16843, 16875, 16877, 17765, 17766, 17813, 17899, 19397, 19576, 19577.


14 The First Division of the Board, bi-partisan in composition, has historic connection with the on-going industrial relations system of the nation's railroads. Considerable caution, it is felt, must be exercised in effecting any changes likely to modify the dynamic articulation of the Division with its traditional functions and relationships in the industry. See, in this connection, Lazor, Due Process on the Railroad (Institute of Industrial Relations No. 1, 1950); Garrison, The National Railroad Adjustment
The problem of accomplishing justice for individuals and outside unions appears to arise by reason of the tendency of the Board system as a whole, and of its component subsystems, to reach tension reduction or equilibrium through claim rejection. Unlike the regular cases wherein it is strain reducing to reach sustainail awards by the union subsystem, there would be increase in strain on the part of the union subsystem (as well as carrier subsystem) by sustained awards in favor of individuals and outside unions. These statements appear to be valid in the light of the findings set forth above.

Let it be assumed that individual and outside union claims are rejected in significant degree as a consequence of the presumed tendency of behavioral systems toward equilibrium and strain reduction. If it could be made strain reducing to uphold such claims, then the defendant-carriers in such cases might be denied justice, much as the claimants in the existing situation. Accordingly, it would seem that equal and even-handed justice between the parties is to be achieved within a system where it is equally strain reducing to sustain a claim as it is strain reducing to reject a claim. Justice is more likely to be attained under conditions of equilibrium.

If it is true that justice is a function of conditions of equilibrium, and if conditions of equilibrium can be measured through scientific methodology, then it would seem to follow that linkages between justice and science should be investigated by lawyers.

**Eunomics**

There are several possible kinds of action which might be undertaken to modify the tendency toward strain reduction by rejection of individual and outside union claims. One kind of action is procedural. Another kind of action is organizational or structural whereby the membership composition of the Board is changed.

Possible procedural changes might include the holding of hearings before the Board, including the referee, so as to conform more closely with traditional concepts of due process of law. Notice requirements, opportunity to present evidence and argument, opportunity to cross-examine, power of subpoena, oath taking, official

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*Board, 46 Yale L.J. 567 (1937); Lazar, The Human Sciences and Legal Institutional Development: Role and Reference Group Concepts Related to the National Railroad Adjustment Board, 31 Notre Dame Law. 414, 430-38 (1956).*
stenographic records, observance of certain basic rules of evidence, etc., might be brought into the procedures. 

Procedural changes, however, would be determinative simply of how the parties establish their case, and how the members of the Board interact with the parties and amongst themselves in the making of the record of the case. Increased opportunity for procedural rulings alone will not tend towards equilibrium or tension reduction within or between the subsystems of the Board. Opportunity for procedural rule manipulation may serve only to provide additional channels for relieving the underlying tensions. Thus, where the system tension reduction is to be achieved by rejection of individual and outside union claims, it is likely that procedural changes may serve only as cloaks or window-dressing to conceal the inherent bias of the system against such claims. It is interesting to note that some 30% of outside union claims were dismissed and that some 46% of individual claims were dismissed in comparison with some 9% of regular cases dismissed.\textsuperscript{15} It would seem that the constraints of procedure would not bar a hostile system from deciding against a party on procedural grounds, especially where any right of appeal is doubtful. In fact, a negative decision on procedural grounds might even be encouraged.

If procedural changes does not supply the cure, it is clear that organizational or structural changes to alter the composition of the system are required. For so long as it is tension reducing for the subsystems of union and carrier to reject individual and outside union claims, the tendency to make decisions of this sort may be expected to continue. Consequently, it is necessary to remove such tendency by eliminating or altering the composition of the subsystems.

One way of altering the subsystem composition is to add to the membership of the Board, for the particular individual or outside union case, a representative of such party. So long as the regular membership functions within the Board, however, the outside party is conclusively outvoted. It would be unrealistic to assume that the tendencies toward strain reduction through rejection of such cases would be eliminated by bringing the outsider into the system membership, even if this were permissible.\textsuperscript{16}

\textsuperscript{15} See Tables 1 and 2.

\textsuperscript{16} The fight-to-the-death struggle of the standard railroad labor organizations represented on the First Division and the United Railroad Operating Crafts (UROC)
In the light of the foregoing considerations, it is necessary to consider the possibility of the reorganization of the Board system so that the carrier and union subsystems may be outvoted or eliminated. The first alternative would require the addition of eleven “public” referees to outvote the ten regular members of the Division. Obviously, this is not practicable. To eliminate the union and carrier subsystems or to reduce their size and outweigh them by “public” members is another possibility. Such a reorganization would run counter to the effort to solve the problem without damaging the system’s handling of the great bulk of the docket of regular cases. This suggests then that a special organizational provision is required for the individual and outside union cases.

The discussion so far indicates that neither procedural nor organizational changes so far considered within the existing Board system offer an adequate solution to the problem presented. Conceivably, if the exclusive jurisdiction holding in the Slocum case were restricted in application to the regular cases, the problem might be solved through the traditional availability of the judicial forum to individual and outside union claimants. If this approach were followed, there still would remain the question whether individuals


It is of interest that the UROC submitted 16 cases to the First Division; and of these 16 cases, the Board without referee denied 14 outright and dismissed two. In 6 of the 16 cases, the findings stated that the case “is not to be considered or cited as a precedent” or words to this effect. See Awards Nos. 16593, 16714, 17757, 17765, 17766, 17767, 17768, 17769, 17805, 17805, 17807, 17808, 17809, 17813, 17927, 17928.

17 In Slocum v. Delaware, L. & W.R.R., 339 U.S. 239, 244 n.7 (1949), the Court stated: “We are not confronted here with any disagreement or conflict in interest between an employee and his bargaining representative, as in Steele v. Louisville & N.R.R., 323 U.S. 192 (1944). Nor are we called upon to decide any question concerning judicial proceedings to review board action or inaction.” Accordingly, it would appear that an employee in disagreement or with conflict in interest with his bargaining representative, as in Steele, may seek his remedy in court. Even if this category of cases were expanded and not narrowly construed so as to broaden out the availability of the judicial forum, it is doubtful, on the basis of the nature of the claims actually submitted to the First Division, whether there would be any substantial number of cases within the jurisdiction of the courts. Almost all of the 180 individual and outside union cases deal with conventional grievances involving discipline and application of working rules.
and outside unions were to be denied the real or fanciful advantages in grievance determination made available to the regular unions.

It seems that a full and adequate solution to the problem is readily available by simple action of the First Division. Section 3 First (w) of the Railway Labor Act provides, in part, that "any division of the Adjustment Board shall have authority, in its discretion, to establish regional adjustment boards to act in its place and stead for such limited period as such division may determine to be necessary."\(^{18}\) This provision of the Act has previously been the basis for the creation of supplemental boards, national in scope, by the First Division.\(^{19}\) Accordingly, it is within the present legal authority of the First Division to establish supplementary boards to issue awards on cases of individuals and outside unions. Such boards may be specially created from time to time as the size of the docket of individual and outside union cases may warrant.

The membership of the supplementary boards may be representative of the carriers and the individuals and outside unions who are parties to the cases. The First Division may, and has made, such designation pursuant to section 3 First (w) which provides in part:

> Carrier members of such regional boards shall be designated in keeping with rules devised for this purpose by the carrier members of the Adjustment Board and the labor members shall be designated in keeping with rules devised for this purpose by the labor members of the Adjustment Board.\(^{20}\)

It is within the power of the First Division to limit the precedential force of the supplementary board.\(^{21}\) Thus, if it chooses to do so, it may provide that awards of the supplementary board are to have no value whatsoever as precedents and are not to be cited or

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\(^{19}\) See 16 NATIONAL MEDIATION Bd. CHM. REP. 90 (1950).

\(^{20}\) Railway Labor Act § 3 First (w), 48 Stat. 1185 (1934), 45 U.S.C. § 153 First (w) (1952). Party representatives were brought into the membership of the supplementary boards previously established by the First Division.

\(^{21}\) Railway Labor Act § 3 First (w), 48 Stat. 1185 (1934), 45 U.S.C. § 153 First (w) (1952) provides in part: "Any such regional board shall, during the time for which it is appointed, have the same authority to conduct hearings, make findings upon disputes and adopt the same procedure as the division of the Adjustment Board appointing it, and its decisions shall be enforceable to the same extent and under the same processes." Although this provision would place the authority of the supplementary board on an equal level with the parent sister First Division, the First Division is free by its own action upon itself to establish the rule that supplementary board awards are to have no precedent value on the First Division.
used or considered as precedents on the First Division. In this manner, the industrial jurisprudence of the regular First Division system may be safeguarded and insulated from possibly mischievous or collusive awards. A supplementary board, moreover, may be able to function without making burdensome time and cost demands on the regular membership of the First Division.

CONCLUSION

It appears that the bi-partisan composition of the National Railroad Adjustment Board, First Division, has certain characteristic properties of behavioral systems. It has a tendency toward maximizing strain reduction and reaching equilibrium. Where individual and outside union grievances are inputs into the Board system, tensions are created. The tensions seem to be reduced and equilibrium seems to be restored through rejection of the claims. Thus, of 180 such claims found, only 2 were sustained.

Justice, it seems, is more likely to be attained where conditions of equilibrium exist, so that it is equally tension reducing to sustain a claim as it is to deny a claim.

Eunomics, as the science, theory, or study of good order and workable arrangements, suggests that the relationship between justice and institutional tensions be systematically investigated. In view of the factual findings indicated herein, it appears to be desirable in the interests of justice to establish supplementary boards of adjustment, pursuant to the Railway Labor Act, for the determination of grievances of individual and outside union cases.

22 See, in this connection, Transcontinental & W. Air Lines, Inc. v. Koppal, 345 U.S. 653, 661 (1953), noting that if a court "must consider some provisions of a collective bargaining agreement, its interpretation would of course have no binding effect on future interpretations by the Board."