Nomic: A Game of Self-Amendment

A. Introduction

If law-making is a game, then it is a game in which changing the rules is a move. Law-making is more than changing the rules of law-making, of course, and more than a game. But a real game may model the self-amending character of the legal system and leave the rest out. While self-amendment appears to be an esoteric feature of law, capturing it in a game creates a remarkably complete microcosm of a functional legal system.

Statutes are the paradigm legal rules. Statutes are made by a rule-governed process that is itself partly statutory. Hence the power to make and change statutes can reach some of the rules that govern the process itself. Most of the rules that govern the making of statutes, however, are constitutional and beyond the reach of the power they govern. Congress can change its parliamentary rules, committee structure, and revocably bind its future action by its past action, but through mere statutes it cannot alter the supermajority needed to override an executive veto, abolish one of its houses, start a tax bill in the Senate, or even delegate too much of its power to experts.

Statutes cannot affect constitutional rules, but the latter can affect the former. This is an important difference of logical priority. When a conflict exists between rules of different types, the constitutional rules always prevail. This logical difference is matched by a political difference: the logically prior (constitutional) rules are more difficult to amend than the logically posterior (statutory) rules. That these two differences occur together is not accidental. One purpose of making some rules more difficult to change than others is to prevent a brief wave of fanaticism from undoing decades or centuries of refined structure. It is self-paternalism, our chosen insurance against our anticipated weak moments. But that purpose is not met unless the two-tier (or multi-tier) system also creates a logical hierarchy in which the less mutable rules take logical priority over the more mutable rules. Otherwise the more mutable rules could by themselves undo basic patterns. If supermajorities and the concurrence of many bodies are necessary to protect the foundations of the system from hasty change, then that protective purpose is frustrated if those foundations are reachable by rules that require only a simple majority of a single legislature.

Although all the rules in the American system are mutable, it is convenient to refer to the less mutable constitutional rules as "immutable" and to the more mutable rules below them in the hierarchy simply as "mutable". The same is true in Nomic (from Greek *nómos*, law), where at least initially no rule is literally immutable. If our self-paternalism is to be effective, then, the "immutable" rules must conjoin logical priority with their defining characteristic of resistance to easy amendment. Many systems could have satisfied this requirement. Nomic has adopted a simple two-tier system. A system could, however, have any number of degrees of difficulty in the amendment of rules. Rules that are more difficult to amend must always take priority over those that are less difficult to amend in case of conflicts, and should contain more fundamental provisions of the legal system. Class A rules, the hardest to amend, could require unanimity of a central body and unanimous concurrence of all regional bodies. Class B rules could require 90%

supermajorities, Class C rules 80% supermajorities, and so on. The number of such categories could be indefinitely large.

If appropriate qualifications are made for the informality of custom and etiquette, a case could be made that normal social life is just a system of indefinite tiers. Near the top of the "difficult" end of the series, below entrenched cultural norms, are actual laws, rising through case precedents, regulations and statutes, to constitutional rules. At the bottom of the scale are those rules of personal behavior that individuals may amend unilaterally without incurring censure. Above those are rules for which amendment is increasingly costly, starting with (say) costs on the order of furrowed brows and clucked tongues, passing through indignant blows and vengeful homicide.

Nomic is unambiguously a two-tier system, whereas the United States has such intermediate and anomolous things as administrative regulations, joint resolutions, treaties, executive agreements, higher and lower court decisions, state practice, parliamentary rules of order, judicial rules of procedure and evidence, executive orders, canons of professional responsibility, evidentiary presumptions, standards of reasonableness, rules for establishing priority among rules, canons of interpretation, contractual rules, and so on. Moreover, all legal systems have, as Ronald Dworkin has argued, such unwritten rule-like things as principles and standards.[Note 3] Nomic is a clean two-tier system, rather than a nuanced or multi-tier system, for the sake of simplicity and to make the game easier to learn and play. This is not to say that nuanced, intermediate levels may not arise through game-custom and tacit understandings. Moreover, the nature of Nomic allows players to add new tiers by explicit amendment as they see fit; and it is easier to add them to a simple game than to subtract them from a complex one.

The two-tier system, by complicating the simplicity of a unitary system, embodies the same self-paternalistic elements of the federal constitution. The "immutable" rules govern more basic processes than the "mutable" rules, and so shield them from hasty change. Because every last rule of the game can change in the the course of play, the players may feel that they are playing a "different game" after a few rounds than when they sat down.

In the United States, fundamental constitutional rules are mutable, but the procedure for amending them is more difficult than for less fundamental statutory rules. In Nomic, the "immutable" rules may also be amended. Rather than use a more difficult amending procedure, I have adopted a two-step procedure. The first is the "transmutation" of the "immutable" rule into a "mutable" rule; the second is the amendment of the mutable rule. In this sense all rules are amendable by the same procedure; some must simply be transmuted first. Unless players change this, Nomic permits the amendment of *every* one of its rules; there is no absolutely immutable foundation or inviolate level.

Nomic even makes some rules explicit in order to make them amendable, when in most games they are implicit —rules to obey the rules, rules that players each start with zero points, and so on. No tacit understanding that one brings to most games simply *qua* games, let alone any explicit rule, is beyond the amendment power of Nomic. After Nomic was first published in *Scientific American*, a German philosopher wrote to me insisting that Rule 101 (that players

should obey the rules) should be omitted from the Initial Set and made part of a truly immutable shell. He missed an essential point of the game. Rule 101 is included precisely so that it can be amended; if players amend or repeal it, they deserve what they get.

The plurality of tiers prevents the logical foundation of the game, or the physical activity comprising play, from changing radically in just a few moves. Continuity is a virtue of both games and governments, but players have an advantage over citizens in that they can adjust the degree of continuity and the rate of change at will and intelligently, whereas in life these mechanisms are barely known and partially beyond the reach of planned action. All other games possess the continuity of unchanging rules, or at least of rules that change only between, and not during, games. Nomic has more the continuity of a legal system than a normal game: it is a rule-governed set of processes, systems, and directives undergoing constant rule-governed change. The "game" for the purposes of presenting it, as in this appendix, is the Initial Set of rules. But the "game" is equally the dynamic rule-governed change of the Initial Set. The continuing identity of the game, like that of a state, is due to the fact (when it is a fact) that all change is the product of existing rules properly applied, and none is revolutionary. If exceptions to this continuity can be cured for states by acceptance or acquiescence or subsequent ratification, I leave it to players to decide whether breaches of continuity in Nomic may be cured by an analogous social practice.

Nomic includes provision for Judgment (Rule 212), not merely to imitate government on another front, but also for the reasons that government must make provision for judgment: rules will inevitably be adopted that are ambiguous, inconsistent, or incomplete, or that require application to individual circumstances not specified in the rule or not anticipated by the framers. "Play" must not be interrupted; some agency must be empowered to make an authoritative determination so that "play" may continue.

Judgments in Nomic are not bound by rules of precedent, for that would require a daunting amount of record-keeping for each game. But the doctrine of *stare decisis* may be imposed at the players' option, or may arise without explicit amendment as successive judges feel impelled to treat like cases alike. Without *stare decisis* players are put upon to draft their rules carefully, make thoughtful adjudications, overrule poor judgments, and amend defective rules. This is one way in which Nomic teaches basic principles and exigencies of law, even while it vastly simplifies.

The Initial Set must be sufficiently short and simple to encourage play, but sufficiently long and complex to cover contingencies likely to arise before the players get around to providing for them in a rule. It also needs a certain complexity to prevent any single rule-change from disrupting the continuity of the game. Whether my Initial Set satisfies these competing interests I leave to players to decide. Players who think not may wish to change the Initial Set before play rather than rely on amendments during play. They will then play "constitutional convention" more than "legislation".

There is no single AC or amendment rule in Nomic. Rule 116 permits amendment only when "a rule or rules make [amendment] permissible", thus allowing the complete extinguishment of the

amendment power in principle. Rules 104 and 114 satisfy 116 by guaranteeing the continuing permissibility of some form of "rule-change", which is defined by 103 so as to leave no rule literally immutable. Rules 202 through 206 presuppose that amendment is permissible; a game-judge may well decide that they also satisfy the need in 116 for rules affirmatively permitting amendment. Rules 202 and 203 articulate the basic procedure of amendment: proposal and ratification. Rule 115 explicitly permits self-application.

Of course all these rules are (initially) subject to change. Many rules would have to be amended or repealed before amendment could itself become impermissible, and even then a judge (if there were still judges) might find an "inherent power" to amend before that too is extinguished. I leave to players the challenges of ascertaining (1) whether any rules can be made truly immutable while preserving some power to amend, and (2) whether the power to amend can completely and irrevocably be repealed.

Are games sufficiently different from legal systems to render the analysis of self-amendment in Part I inapplicable to them? Without pursuing the question to the lengths it deserves, we may note that a game is so much simpler than a legal system, with (almost?) all its rules explicit and in definitive form, that the inference model might apply without distortion. For these purposes we may want to distinguish games like tic-tac-toe and chess from cricket and sand-lot baseball. The former are finite and fixed rule-governed games that lose nothing by interpretation under the inference model, while the latter have a large element of uncodified custom and indeterminacy that may be oversimplified and distorted by the inference model. Games like sand-lot baseball, moreover, seem to contain a kind of meta-rule that permits changes in the rules authorized by consent or acceptance rather than by explicit procedures.

On the other hand, a game is not something we are born into; we expressly choose whether or not to play. Hence principles of contract or acceptance are peculiarly applicable to games. The elective nature of games and the comparatively small space they occupy in our lives suggest that the authority of game rules derives from the agreement of players and not from other rules from which the players cannot escape without great difficulty. If so, then Hart's acceptance model would apply to games much more perspicuously than Ross's inference model.

In addition to teaching many basic principles and pressures of a legal system, and allowing more intelligent adjustment of the degree of continuity and rate of change, Nomic has turned out to have many other unique and intriguing features. In other games, inept moves are their own punishments. Either they create a less interesting game or they increase the risk of defeat for their perpetrators. Initially the same is true for Nomic, but it need not remain true. The ineptness of a move may be measured along many parameters. A measure of ineptness may be instituted by rule, and then "inept" rules immediately met with punishment, price, or prohibition. In this way Nomic —like law— allows the blurring of a distinction fundamental to most other games: the distinction between constitutive rules and rules of skill, or between lawful and artful play, between permissible and optimal action.

Similarly, most other games do not embrace non-play and do not become paradoxical by seeming to do so. Children often invent games that provide game-penalties for declining

invitations to play, or that extend game-jurisdiction to all of "real life" and end only when the children tire or forget. ("Daddy, Daddy, come play a new game we invented!" "No, sweetheart, I'm reading." "That's 10 points!") Law does this too. One cannot choose not to play criminal law, and kill someone with impunity, or choose not to play tax law. These choices are not recognized by the rules of the "law game" as valid moves; one is liable anyway. Nomic can become law-like in this way, or child-like in the former way, to an arbitrary degree. A game of Nomic may embrace anything at the vote of the players. The line between play and non-play may shift at each turn, or it may apparently be eliminated. Players may be governed by the game when they think they are in between games or when they think they have quit. Part of the rationale of Rule 113 is to minimize the only obvious, disadvantageous consequence of this feature, or to require an explicit vote to institute those consequences.

For most games there is an infallible decision procedure to determine the legality of a move. In Nomic situations may easily arise in which it is very hard to determine whether a move is legal. Moreover, paradoxes may arise in Nomic that paralyze judgment. Occasionally this will be due to the poor drafting of a rule, but it may also arise from a rule that is well-drafted but mischievous. The variety of such paradoxes is truly impossible to anticipate. Rule 213 is designed to cope with them as well as possible without cluttering the Initial Set with too many legalistic qualifications. Note that Rule 213 allows a wily player to create a paradox, get it passed (if the rule seems innocent enough to the other players), and thereby win.

B. How to play Nomic

Nomic is a game in which changing the rules is a move. In that respect it differs from almost every other game. The primary activity of Nomic is proposing changes in the rules, debating the wisdom of changing them in that way, voting on the changes, deciding what can and cannot be done afterwards, and doing it. Even this core of the game, of course, can be changed.

Because the rules are always changing, there is no absolute set of rules to Nomic. There is only the starting or initial set of rules. There are 29 numbered rules in the Initial Set. Most are "procedural" and govern the process of changing the rules or the facts of life in a game where the rules are always changing. The chief exception is Initial Rule 202, which should be read first. Rule 202 is practically the only "substantive" rule in the Initial Set. It tells how to earn points to win. The mechanism is as simple as possible: one throws a die or makes a calculation. The substantive portion of the game is deliberately simple so that the players can decide, through rule-changes, what kind of game they want to play. If they make no decision here, they will be fully occupied in what I call a "procedural" game, which many players choose deliberately. In a substantive game, players aim to score points and win. In a procedural game, players try to tie the rules into the most interesting knots imaginable and to win not by points (Rule 208) but by paradox (Rule 213).

Two can play, but three or more make for a better game. With only two players, there is no (initial) difference between unanimity and majority rule, which takes away a lot of the fun. For two-person games, I recommend that an early rule-change add at least one "robot" player who cannot propose changes but who can vote on them by some mechanism (e.g. by a throw of the

die). That way two humans can simulate a larger game and distinguish unanimity from lesser majorities.

Players will need paper and pencil and, at least in the beginning of face-to-face games, one die. Each player should have a copy of the Initial Set of rules to consult.

The physical method of play, other than the die and a requirement to write down all rule-changes, is not specified in the rules. Players can keep track of rule-changes in any way they like. One good way is as follows. Take 29 index cards and number them from 101 to 116 and from 201 to 213. Lay them out on the floor or a large table. Their layout (and perhaps their color as well) should indicate which rules are "immutable" (101-116) and which are "mutable" (201-213).

New proposals for rule-changes are also written on index cards, or (to save money) on scratch pads of the same size. If a proposal is adopted, the card is put in its place in the numerical order. If a proposal is an amendment to an existing rule, it lies on top of the card whose rule it amends. If a rule is repealed, its card is simply removed. Save the 29 cards numbered with the Initial Set for use in future games.

For more complex games players may prefer to transcribe into their own notebooks the text of each new rule or amendment and to keep a separate list, by number, of the rules still in effect. If this method is adopted, the rules should probably define a "master book" that contains the authoritative text of each rule in case of conflicts or transcribing errors.

The constantly changing body of rules makes Nomic a natural for word processors. Players who can share equipment or use a network to display the same file of rules might try to do so. A single player should probably be assigned the responsibility of entering and editing the text. Computers will permit very complex, long-term games to develop. Players may want to plan ahead when they start such a game, attempt to date each amendment and addition, and provide separate files for amended and repealed rules, and defeated proposals, in order to keep a record of the game.

Players who try to go beyond text processing and actually put some Nomic bookkeeping in a program are warned that the complexities are subtle. First, such a program should be as easy to modify as the rules of the game, or else the difficulty of changing it will put an unwanted brake on play. Moreover, it is very easy inadvertently to give the program decisions to make that are not actually clerical and that belong to the players, that is, to change Nomic without realizing it. This is true even of the most deceptively simple decisions such as renumbering rules after amendment, computing scores, and deciding who plays next. For the same reasons, mere word processing can introduce distortions. Decisions necessary to write a program or edit text may require a precision not explicit in the rule as written, in which case the programmer usurps the power of the game Judge if she simply chooses a reading of the rule. In any case, the game Judge should be the final arbiter of all questions and decisions, even those made by a program, unless of course a rule has changed the role of the Judge.

Nomic

Initial Set of Rules

Immutable Rules

101. All players must always abide by all the rules then in effect, in the form in which they are then in effect. The rules in the Initial Set are in effect whenever a game begins. The Initial Set consists of Rules 101-116 (immutable) and 201-213 (mutable).

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102. Initially rules in the 100's are immutable and rules in the 200's are mutable. Rules subsequently enacted or transmuted (that is, changed from immutable to mutable or *vice versa*) may be immutable or mutable regardless of their numbers, and rules in the Initial Set may be transmuted regardless of their numbers.

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103. A rule-change is any of the following: (1) the enactment, repeal, or amendment of a mutable rule; (2) the enactment, repeal, or amendment of an amendment of a mutable rule; or (3) the transmutation of an immutable rule into a mutable rule or *vice versa*.

(Note: This definition implies that, at least initially, all new rules are mutable; immutable rules, as long as they are immutable, may not be amended or repealed; mutable rules, as long as they are mutable, may be amended or repealed; any rule of any status may be transmuted; no rule is absolutely immune to change.)

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104. All rule-changes proposed in the proper way shall be voted on. They will be adopted if and only if they receive the required number of votes.

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105. Every player is an eligible voter. Every eligible voter must participate in every vote on rule-changes.

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106. All proposed rule-changes shall be written down before they are voted on. If they are adopted, they shall guide play in the form in which they were voted on.

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107. No rule-change may take effect earlier than the moment of the completion of the vote that adopted it, even if its wording explicitly states otherwise. No rule-change may have retroactive application.

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108. Each proposed rule-change shall be given a number for reference. The numbers shall begin with 301, and each rule-change proposed in the proper way shall receive the next successive integer, whether or not the proposal is adopted.

If a rule is repealed and reenacted, it receives the number of the proposal to reenact it. If a rule is amended or transmuted, it receives the number of the proposal to amend or transmute it. If an amendment is amended or repealed, the entire rule of which it is a part receives the number of the proposal to amend or repeal the amendment.

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109. Rule-changes that transmute immutable rules into mutable rules may be adopted if and only if the vote is unanimous among the eligible voters. Transmutation shall not be implied, but must be stated explicitly in a proposal to take effect.

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110. In a conflict between a mutable and an immutable rule, the immutable rule takes precedence and the mutable rule shall be entirely void. For the purposes of this rule a proposal to transmute an immutable rule does not "conflict" with that immutable rule.

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111. If a rule-change as proposed is unclear, ambiguous, paradoxical, or destructive of play, or if it arguably consists of two or more rule-changes compounded or is an amendment that makes no difference, or if it is otherwise of questionable value, then the other players may suggest amendments or argue against the proposal before the vote. A reasonable time must be allowed for this debate. The proponent decides the final form in which the proposal is to be voted on and, unless the Judge has been asked to do so, also decides the time to end debate and vote.

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112. The state of affairs that constitutes winning may not be altered from achieving *n* points to any other state of affairs. The magnitude of *n* and the means of earning points may be changed, and rules that establish a winner when play cannot continue may be enacted and (while they are mutable) be amended or repealed.

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113. A player always has the option to forfeit the game rather than continue to play or incur a game penalty. No penalty worse than losing, in the judgment of the player to incur it, may be imposed.

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114. There must always be at least one mutable rule. The adoption of rule-changes must never become completely impermissible.

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115. Rule-changes that affect rules needed to allow or apply rule-changes are as permissible as other rule-changes. Even rule-changes that amend or repeal their own authority are permissible. No rule-change or type of move is impermissible solely on account of the self-reference or self-application of a rule.

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116. Whatever is not prohibited or regulated by a rule is permitted and unregulated, with the sole exception of changing the rules, which is permitted only when a rule or set of rules explicitly or implicitly permits it.

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Mutable Rules

201. Players shall alternate in clockwise order, taking one whole turn apiece. Turns may not be skipped or passed, and parts of turns may not be omitted. All players begin with zero points.

In mail and computer games, players shall alternate in alphabetical order by surname.

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202. One turn consists of two parts in this order: (1) proposing one rule-change and having it voted on, and (2) throwing one die once and adding the number of points on its face to one's score.

In mail and computer games, instead of throwing a die, players subtract 291 from the ordinal number of their proposal and multiply the result by the fraction of favorable votes it received, rounded to the nearest integer. (This yields a number between 0 and 10 for the first player, with the upper limit increasing by one each turn; more points are awarded for more popular proposals.)

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203. A rule-change is adopted if and only if the vote is unanimous among the eligible voters. If this rule is not amended by the end of the second complete circuit of turns, it automatically changes to require only a simple majority.

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204. If and when rule-changes can be adopted without unanimity, the players who vote against winning proposals shall receive 10 points each.

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205. An adopted rule-change takes full effect at the moment of the completion of the vote that adopted it.

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206. When a proposed rule-change is defeated, the player who proposed it loses 10 points.

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207. Each player always has exactly one vote.

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208. The winner is the first player to achieve 100 (positive) points.

In mail and computer games, the winner is the first player to achieve 200 (positive) points.

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209. At no time may there be more than 25 mutable rules.

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210. Players may not conspire or consult on the making of future rule-changes unless they are team-mates.

The first paragraph of this rule does not apply to games by mail or computer.

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211. If two or more mutable rules conflict with one another, or if two or more immutable rules conflict with one another, then the rule with the lowest ordinal number takes precedence.

If at least one of the rules in conflict explicitly says of itself that it defers to another rule (or type of rule) or takes precedence over another rule (or type of rule), then such provisions shall supersede the numerical method for determining precedence.

If two or more rules claim to take precedence over one another or to defer to one another, then the numerical method again governs.

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212. If players disagree about the legality of a move or the interpretation or application of a rule, then the player preceding the one moving is to be the Judge and decide the question. Disagreement for the purposes of this rule may be created by the insistence of any player. This process is called invoking Judgment.

When Judgment has been invoked, the next player may not begin his or her turn without the consent of a majority of the other players.

The Judge's Judgment may be overruled only by a unanimous vote of the other players taken before the next turn is begun. If a Judge's Judgment is overruled, then the player preceding the Judge in the playing order becomes the new Judge for the question, and so on, except that no player is to be Judge during his or her own turn or during the turn of a team-mate.

Unless a Judge is overruled, one Judge settles all questions arising from the game until the next turn is begun, including questions as to his or her own legitimacy and jurisdiction as Judge.

New Judges are not bound by the decisions of old Judges. New Judges may, however, settle only those questions on which the players currently disagree and that affect the completion of the turn in which Judgment was invoked. All decisions by Judges shall be in accordance with all the rules then in effect; but when the rules are silent, inconsistent, or unclear on the point at issue, then the Judge shall consider game-custom and the spirit of the game before applying other standards.

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213. If the rules are changed so that further play is impossible, or if the legality of a move cannot be determined with finality, or if by the Judge's best reasoning, not overruled, a move appears equally legal and illegal, then the first player unable to complete a turn is the winner.

This rule takes precedence over every other rule determining the winner.

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