BOOK 2

ZENDO

GOING DEEPER

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The first booklet should be enough to get you started, but as you continue to play Zendo, you will need to know more. This booklet provides a lot of additional information on the following subjects:

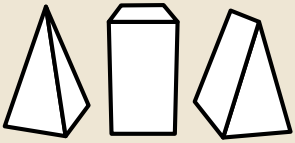
- ATTRIBUTE DEFINITIONS
- ADVICE FOR PLAYERS
  - Five Suggestions for Creating Structures
  - Five Tips for Thinking About Patterns
  - Five More Tidbits of Player Advice
- ADVICE FOR MODERATORS
  - Choose a Rule of Appropriate Difficulty
  - Be Careful When Going Off-Card
  - Avoid Ambiguities
  - Ease New Players into Complex Concepts
  - Create Simple Initial Structures
  - Always Watch for Marking Mistakes
  - Answer Questions Truthfully
  - Unintentional Hints
  - When The Game Goes On Too Long
  - When Mistakes Happen
- PLAYING WITH TWO
- HISTORICAL NOTES
- CREDITS

ATTRIBUTE DEFINITIONS

The purpose of this list of common terminology is twofold: to provide a way for players to conceptualize rules, and to provide a common language to aid the communication process between Moderators and players. For the player, formulating and communicating a guess is one of the most difficult aspects of the game. For the Moderator, understanding and probing that guess is just as difficult. Standard terminology makes this process easier for everyone. Listed below are the most common attributes that pieces in a structure can share.

Color: Every piece has a color, either yellow, red, or blue.

Shape: The three shapes are called Pyramids, Blocks, and Wedges. The term "piece" may refer to any shape.

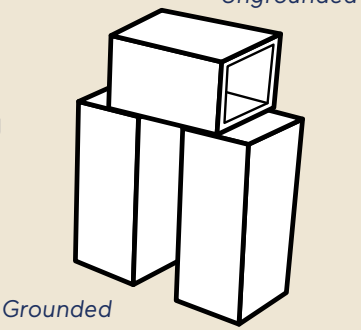


Number: Any group of pieces fitting a particular description has a number associated with it. For example, you can talk about the number of blue pieces, the number of pyramids in a particular orientation, or the total number of pieces in a structure.

Exactly / At Least: Avoid using indefinite statements like "contains a red piece," or "contains two wedge pieces," because it's not clear whether you mean exactly that number, or at least that number. Always use definite statements like "contains exactly one red piece," or "contains at least two wedge pieces."

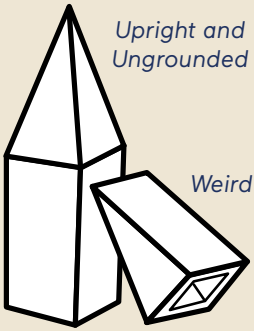
Touching: If two pieces are making physical contact in any way, they're touching. Unlike pointing, if one piece is touching another piece, the other piece is always touching it back.

Grounded / Ungrounded: A piece is "grounded" if any part of it is touching the playing surface; otherwise it's "ungrounded." Note that this attribute is entirely independent of a piece's orientation.

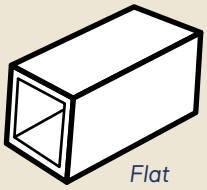


Orientation: All pieces in a structure will be in one of four orientations: "upright," "upside-down," "flat," or "weird."

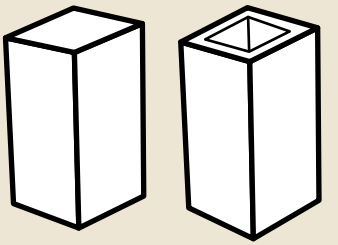
- **Upright:** A piece is upright when it is pointing straight upward, with its base parallel to the table. (The base is the side of the piece that is open and square. Each piece has one and only one base.)
- **Upside-Down:** A piece is upside-down when it's pointing straight downward, with its base parallel to the table.
- **Flat:** A piece is flat when its lowest side is parallel to the table.
- **Weird:** A piece is "weird" if it's not upright, upside-down, or flat.



Note that these four orientations are mutually exclusive—a piece cannot be both flat and weird at the same time. Also note that a piece's orientation has nothing to do with whether or not that piece is touching the playing surface. For example, the ungrounded block in the illustration on the previous page is still considered flat. Finally, note that a group of pieces has the same "orientation" as long as they're all upright, all upside-down, all flat, or all weird, even if they're not all pointing in the same direction.

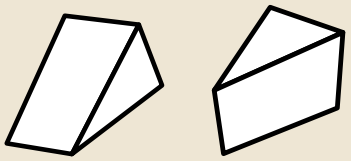


Vertical: A piece is "vertical" if its base is parallel to the table, whether grounded or not. Both "upright" and "upside-down" orientations are vertical.



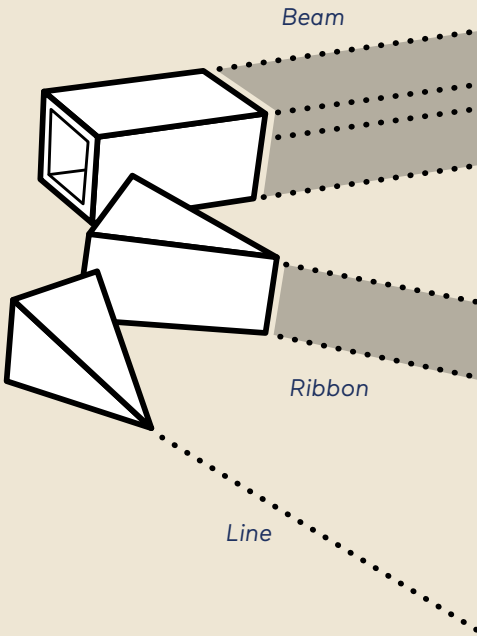
Direction: This term is used slightly differently than "orientation;" it refers to the direction that pieces are pointing relative to each other. Although absolute direction (e.g. North, South, etc) is not allowed, multiple pieces may be said to be pointing in the "same direction," or "different directions," or even "opposite directions."

Cheesecake / Doorstop: Wedges have two ways of being "flat." If its triangular sides are parallel to the table, it is considered to be in the "Cheesecake" position. If one of its rectangular sides is parallel to the table, it's called a "Doorstop." Both variants are considered "flat."

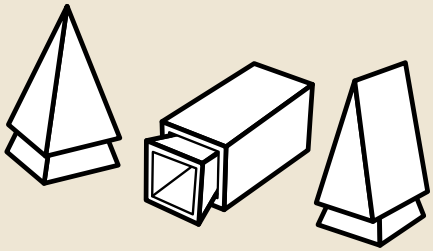


Doorstop *Cheesecake*

Pointing: All shapes can point, although each does so differently. In all cases, you should imagine a "pointing ray" that shoots directly out of its top, perpendicular to its base. It only shoots away from the top of the piece, and any pieces this ray strikes are considered to be pointed at. Pyramids shoot a very precise laser-line, whereas Blocks are more like a flashlight, shooting out a square beam as wide as the piece itself. Wedges shoot a "ribbon of light." The pointing ray will pass unhindered through any other piece. However, if the ray hits the table, the ray will bend to skim along the table's surface. A piece may be referred to as "the first piece being pointed at," or "the second piece being pointed at," and so on.

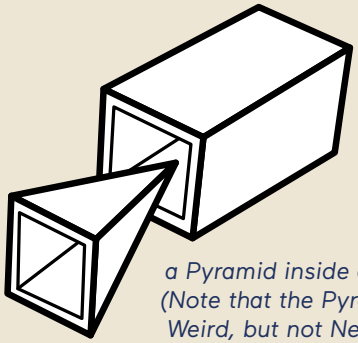


Nested: Only pyramids can nest, but they can be nested inside any type of piece. A pyramid is considered nested if it has been pushed into another piece as far as it will go.

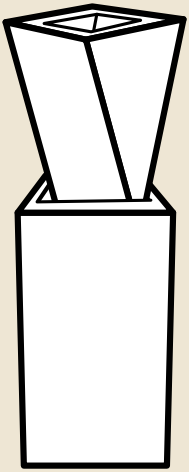


Nested Pyramids

Inside: If any portion of a piece is pushed through the open base of another piece, it is said to be inside that piece.



a Pyramid inside a Block (Note that the Pyramid is Weird, but not Nested)



a Wedge inside a Block

Height: The physically highest point of a piece marks the height of that piece within the structure. A piece may be higher than, lower than, or at the same height as any other piece in the structure. There will always be at least one highest piece and at least one lowest piece in a structure. It's possible for the same pieces to be both the highest and the lowest in a structure.

On Top: A piece can be placed on top of another piece or pieces. To be designated "on top of" another piece, the piece must be both higher than and touching that piece, with at least some portion of the topmost piece directly above the piece that's underneath. A piece may also be described as being "above" or "below" another piece, whether the pieces in question are touching each other or not.

Plurality / Majority: When there are more red pieces in a structure than any other color, the structure contains a "plurality" of red pieces. When there are more red pieces in a structure than all the other colors put together, the structure contains a "majority" of red pieces. Many people use the word "majority" when they mean "plurality." If players use either of these terms while you are the Moderator, ask for clarification.

ADVICE FOR PLAYERS

Because Zendo is an inductive logic game rather than a deductive one, there is no formula for thinking of possible secret rules. The rule options provided by the cards are vast, and if Moderators start creating rules of their own, the possibilities become truly endless. This is what makes Zendo both fun and challenging. So how should a player go about figuring out the one and only correct secret rule from possibilities too numerous to name? We have found that the most successful players are those who are able to constantly be seeking patterns on a global level while simultaneously creating very focused experiments on individual structures that help lead them in the right direction. In other words, they are constantly thinking of all the possible rules that could fit the structures on the table, while also thinking about how to create very specific new structures that will narrow down that list of possible rules.

FIVE SUGGESTIONS FOR CREATING STRUCTURES

Your goal when creating structures is to figure out what attributes matter for this particular rule. Interestingly, it is possible to determine with certainty that a particular attribute *does* matter, but there is no way to determine with certainty that a particular attribute *doesn't* matter. Therefore, you'll want to be careful not to develop false ideas about what doesn't matter simply because it hasn't mattered *yet*. But if you can determine that some particular attribute matters, it will help to focus the list of potential secret rules considerably. The best way to determine if some attribute matters is to build your new structures with calculated incremental differences from existing ones. Here are five suggestions for what kinds of incremental differences will be informative:

1. **Reduce:** Build your new structure so it's missing a certain piece, with all other pieces being exactly the same in every way. If the new structure is marked differently from the old, you know that the piece you removed was important in some way, be it color, shape, size, groundedness, relationship to other pieces, or something else (or maybe more than one of these!). If the marking token doesn't change color, continue to remove pieces from the structure one at a time until you find a piece that matters. Then begin thinking about how this piece might matter.

2. **Substitute:** If you believe a specific piece is important because of its color, build a similar structure in which that piece is a different color but everything else is the same. If the marking token changes, you have definitively proven that color matters in the secret rule. As is true for all of these suggestions, this technique can be used for many different attributes. Again, remember that you can't prove that color or any other attribute *doesn't* matter... only that it *does*. If you systematically

substitute every single color and the marking token never changes color, this does not mean that color doesn't matter. Consider the rule, "A structure must contain three pieces of the same color." Now imagine a structure containing two pieces. No matter how you change the colors of the pieces, this structure will never change from a black marking token to a white one. Color does matter in this case, but this particular structure is never going to show us that it matters.

3. **Homogenize:** Sometimes information can be gained by homogenizing a particular attribute. For example, if there is a white structure on the table that has all three shapes in it, try making a new structure that keeps everything exactly the same except that all the pieces are the same shape (such as all blocks or all wedges). If the marking token color stays the same, this suggests that shape doesn't matter. Remember you can never know for sure that an attribute doesn't matter, but you can build evidence to support that conjecture.

4. **Single-Piece Structures:** There are exactly 24 single-piece structures that can be made with this set of Zendo pieces (9 different color-shape combinations in either 2 or 3 orientations depending on the shape). Note that a single piece cannot be in the weird orientation, nor can it be stacked on, pointing at, or touching another piece. Though you won't want to test all 24 single-piece structure options, it is usually worthwhile to test a few, because if you find even one example in which the color of the marking token changes, you have vastly narrowed the field of possibilities for possible rules.

5. **Spreading:** A good way to start teasing out whether a rule has any relational elements (such as touching, stacked on, or pointing at) versus only population elements (such as number, color, shape, and orientation) is to spread out any structures that have pieces that are touching. This can be done several ways. If pieces are stacked in a tower, you can see what happens if you turn that tower on its side and remove the pieces from inside each other, while still having them touch. If the marking token doesn't change color, then it's possible that stacking doesn't matter. Next keep that same stack on its side and pull the pieces apart so they are no longer touching. If the marking token still doesn't change, then touching may not be involved. Finally, leave the separated pieces in place, but rotate them so they are not pointing at anything. If there is still no change in marking token, pointing may not be important to the rule. Another method of spreading is to leave each piece in its current orientation, but to spread all the pieces out on the table so that they are not touching or pointing at each other. Each of these methods is not perfect, as orientation, groundedness, and other factors are also being changed, but they can be helpful in thinking about relational elements.

FIVE TIPS FOR THINKING ABOUT PATTERNS

In addition to thinking about what structures you can create to give you the best information, you should also constantly be scanning the field of structures, looking for patterns. In the beginning when there are very few structures, it will be fairly easy to think of many rules that fit the current structures. But as the number of structures increases, your list of possible rules will dwindle to a more manageable level, and at some point you may find yourself with no remaining workable rules. Here are some tips for how to get unstuck if you find yourself without any idea what the rule could be:

1. **Review the Attribute Definitions:** There are many aspects to consider.

   - Keep in mind that it's quite possible that more than one of these attributes is involved in the secret rule. For example, if there are pyramids in both white and black structures, does that mean that shape doesn't matter, or does it mean that there is another attribute that matters in conjunction with shape, such as color or number or height?

   - It can also be helpful to think about not only the attributes that a structure does have, but also those attributes that it does not have. For example, if all the white structures have a yellow piece, perhaps yellow is important to the rule; but it may be that the rule is actually about not having blue pieces. To be good at guessing Zendo rules, you need to consider both rules that include and rules that exclude.

   - Keep in mind that the attribute definitions list is not at all exhaustive. If all else fails, try thinking about other possible attributes that may be coming into play. For example, when laid flat, pyramids and cheesecake wedges make a triangular footprint, while blocks and doorstop wedges make a rectangular footprint. Perhaps "footprint" is an attribute that matters. Or maybe it's number of "corners" on top (1 for pyramids, 2 for wedges, and 4 for blocks), or whether air can flow freely into the inside of the pieces ("breathing"). All of these attributes and more have been used in Zendo rules.

   - And finally, remember that even when you think you only changed one factor in your structure experiments, you almost undoubtedly affected many factors. For example, if you change a single upright blue piece into an upright red piece, you have: increased the number of red pieces, decreased the number of blue pieces, changed the number of red pieces in relation to blue pieces and vice versa as well as the number of red pieces in relation to yellow pieces and blue pieces in relation to yellow pieces, changed the number of upright red pieces, upright blue pieces, grounded red pieces, grounded blue pieces, the number of red and blue pieces that are pointing at

nothing, etc. Try as you might, you'll never manage to only change a single factor at a time. The best you can do, therefore, is simply be aware of all the different factors that your experiments are changing so that you don't draw unjustified conclusions from the results.

2. Consider the Various Types of Rules: Rules can be either specific (i.e. must contain three red pieces) or general (i.e. must contain three pieces that are all the same color). They can be simple (i.e. must contain exactly one block), relational (i.e. must contain at least two pieces that touch each other), or make use of multiple attributes (i.e. must contain at least one yellow upright pyramid). More complicated rules can involve "and phrases" (i.e. must contain a red piece and an upside-down piece), "and/or phrases" (i.e. must contain either a red piece or an upside-down piece or both), or number relationships (i.e. must contain more upright pieces than wedges). Particularly complicated rules might contain "both-or-neither phrases" (i.e. must either contain both a red piece and an upside-down piece or neither of these pieces).

3. Look for Partial Patterns: If you can't find an overall pattern that leads to a viable possible rule, try looking for partial patterns. For example, perhaps you have noticed that all the white structures on the table have exactly two pieces. You think this may be important, but the problem is that several of the black structures also have exactly two pieces. Now your job is to figure out the pattern among just the black pieces that have exactly two pieces. Do they all also have yellow pieces? Perhaps the rule is, "The structure must contain exactly two pieces and no yellow pieces."

4. Try to Break Your Own Rule: Once you have narrowed the field to just a few viable possible rules, don't create structures that confirm those potential rules. Your job now is to try to create structures that falsify your ideas... that break your potential rules. Create structures whose outcomes are difficult to predict. If these difficult structures do not succeed in breaking your potential rule, it's probably time to make a guess.

5. Make a Bad Guess: If you feel like the rule is on the tip of your tongue but you just can't quite pull all the pieces together, try taking a complicated and inelegant guess just to see how the Moderator will refute it. Anything that describes all of the whites and none of the blacks will do. For example, you may guess, "The structure must contain a blue pyramid or a yellow block or exactly one ungrounded piece." Most likely, that isn't the rule. But if it fits everything on the table, then you may gain valuable information from the structure the Moderator creates to disprove your rule. However, other players will be getting the same valuable information, so only use this tactic if it's late in the game and you have plenty of guessing tokens to follow up with!

FIVE MORE TIDBITS OF PLAYER ADVICE

1. Pay attention to the two initial structures. Consciously or unconsciously, the Moderator will almost always give clues to the rule in their choices for the first two structures.

2. Use "Quiz" sparingly so as not to give too many guessing tokens to other players, and so as not to give any clues about what you are thinking. Try to use "Quiz" only when you have a guess in mind for which you need a stone, or when you think you can create a structure that other players will mark incorrectly and you alone will mark correctly.

3. When "Quiz" is called, use all the knowledge you have gained to date, and any intuitive hunches you have, to make an educated guess. But if you really have no idea what to guess, go with the odds. If most of the structures on the table are black, it's likely that the structure in question will also be black, and vice versa.

4. Don't guess too early or too often. Every guess you make has the potential of helping your opponents think of something they hadn't thought of before, so only guess if you fear someone else may win before your next turn, or if you have narrowed your list of potential rules down to fewer rules than the number of guessing tokens you possess.

5. Though incremental changes are most likely to give you useful information, if you are really stymied, try shaking things up by creating a structure that is totally different than anything else on the table. These structures can sometimes create that "ah-ha" moment!

ADVICE FOR MODERATORS

When you're the Moderator, it's important for you to remember that you're not really a player. You are a facilitator. You're not in competition with the players. Instead, your main objective is simply to provide an enjoyable playing experience for everyone. There are many things you can do to ensure that the game is fun for everyone.

CHOOSE A RULE OF APPROPRIATE DIFFICULTY

One of the most important choices that you must make when you are the Moderator occurs before the game even starts—the choice of what rule to use. The most common mistake that beginning Moderators make is to choose rules that are too difficult for the current group of players. Remember, your goal as Moderator is not to stump the players with a really tough rule—it's to provide them with an enjoyable experience. Also remember that what counts as "too difficult" depends not only on the experience level of your current group of players, but also on what they're currently in the mood for. Don't be afraid to discuss rule difficulty with them before you choose a rule. Ask them what kind of rule they feel like playing; if they're in the mood for a tough one, they'll tell you. On the other hand, they may not want to know what difficulty you're choosing. They'll tell you that, too.

BE CAREFUL WHEN GOING OFF-CARD

At some point, you may wish to try inventing your own secret rule when you are the Moderator. We highly recommend that you first try playing with rule cards of all three levels of difficulty so that you will have a good sense of how difficult rules can be for the current players. Then, start with a rule that seems extremely simple, and work your way up slowly until you find a level that everyone's comfortable with. Even experienced players will have a hard time estimating the difficulty level of a rule they've never tried before. The best rule-of-thumb is to remember that rules are usually more difficult than they sound. If you are trying to decide between a few different versions of a rule, go with the one that seems the simplest. It's much better to choose a rule that's too easy than one that's too difficult. An easy rule will still be fun, and the game will probably be over quickly, at which point you're ready to simply start another. In contrast, a rule that's too difficult will generate a long and frustrating game—a punishing experience for both Moderator and player. We also suggest writing down your new rules. Nothing helps you clarify your thinking like committing the words to paper. Also, writing it down helps you avoid problems caused by forgetting or mis-remembering some detail about the rule in the middle of the game. Moderators seeking inspiration for new rules will find lists of ideas on the Internet.

AVOID AMBIGUITIES

Every rule must always provide an answer for any structure that a player could possibly build. That's why we use this standard structure: "The structure must contain X." Using this standard structure goes a long way toward avoiding ambiguity. Sometimes ambiguity will still sneak in through a misunderstanding about the definition of a term. For example, perhaps the Moderator is considering only pieces with their openings facing downward to be "upright," but one of the players is considering even upside-down pieces to be "upright." For this reason we recommend using common terminology and their definitions as much as possible.

EASE NEW PLAYERS INTO COMPLEX CONCEPTS

When teaching new players to play Zendo, it's best not to overwhelm them with the full list of terminology. Simply begin playing, selecting rules that only utilize the simplest features like color and shape. After you play a few games, you can begin talking about some of the basic terms, since the players will then be prepared to digest them. In fact, after a few games, new players will begin asking about things like "pointing" and "ungrounded" without being prompted. The best time to discuss terminology is when this discussion arises naturally in the course of play.

CREATE SIMPLE INITIAL STRUCTURES

When you first play as Moderator, you may have the impulse to build large, complex initial structures, so that you will not "give too much away" before the game even starts. As you gain more experience playing Zendo, you will see that this is not necessary. It is impossible to give away any rule with only two structures, no matter how you choose to build them. Remember that your rule seems obvious to you because you already know what it is. The players will need many more than two examples of structures in order to see the patterns that seem obvious to you. Building large initial structures only serves to make the beginning of the game tedious, as the players reduce the sizes of those initial structures to manageable levels. We recommend keeping initial structures down to no more than four pieces each, and preferably fewer.

ALWAYS WATCH FOR MARKING MISTAKES

As the Moderator, your most important responsibility during the main portion of the game is simply to mark structures correctly. It's nearly impossible for players to mentally backtrack and undo the damage caused by faulty information. The best thing you can do to avoid this is to be careful. Don't move too fast. Think about every new structure the players make, and be sure you're marking it correctly. Also, use the "down time" while players are thinking to scan the table for possible mistakes.

ANSWER QUESTIONS TRUTHFULLY

Players may always ask the Moderator clarifying questions about the physical features of existing structures, such as, "Is this piece pointing at that piece?" or, "Which pieces are touching that yellow piece?" These questions are free and may be asked at any time. The Moderator must always answer them, even if they have no bearing on the actual rule. Players may even ask about a structure before they are done building it, such as, "Is this new structure just like this old one, except that the red piece is now blue?" In all matters of uncertainty, the Moderator's judgments are final. The players should be responsible for noticing borderline cases, and asking about them if they feel that they may be important. However, remember that you are only obligated to answer questions about the physical features of a structure. You are not obligated to answer questions about why a structure does or does not follow the rule.

UNINTENTIONAL HINTS

There are five main scenarios in which Moderators sometimes give hints without meaning to. Here's how to avoid giving hints that could spoil the players' fun.

1. Wait for the player to call "Tell" or "Quiz" before grabbing a marking token. If you grab a marking token before a player has the chance to call "Quiz," you basically force the player to call "Tell" (since everyone has now seen the answer). Therefore, train yourself to listen for "Tell" or "Quiz" before you ever reach for the tokens.

2. Look at all the aspects of a structure before marking it or answering questions about it, whether those aspects apply to your rule or not. It's possible to "give away" certain facts about your rule by the way you study structures. For instance, if your rule has something to do with "touching," the players may be able to glean this fact simply by watching you study the new structures they create. Therefore, study all structures as if all of its features matter, no matter what your rule is. For example, if there's a piece on the far side of a structure, and you can't tell whether it's touching some other piece or not, stand up and take a look, regardless of whether your rule has anything to do with touching. If you make this your standard practice, people will not be able to glean anything in particular about your rule from your behavior. Of course, if this kind of behavior becomes too elaborate, it begins to seem like misdirection, which should not be your goal as Moderator. Your goal should not be to consciously misdirect the players. It should simply be to allow them to figure out the rule for themselves, without any overt clues from you.

3. Don't give any indication as to whether it was easy or hard to decide how to mark a structure. When you're deciding how to mark a structure, you may have to make a silent judgment call about whether one piece should be considered to be touching another piece, or pointing at another piece, and so on. Be careful not to indicate to the players that you're agonizing over a tough judgment call. They will most certainly be able to glean important facts about your rule if you do. Try not to even indicate that a judgment call has been made.

4. Clarify a player's guess until all terms are defined and all ambiguities are resolved before creating your counter-example. You should understand the player's guess so well that you'd be able to Moderator a game of Zendo using that rule. Do not hesitate to ask the player clarifying questions if there's anything you don't understand. Ask the player to define any terms that haven't already been agreed upon as standard terminology. Look for and point out any ambiguity in the wording of the guess, and ask the player to clarify. In fact, it's in everyone's best interest to fully understand a guess. The other players are perfectly free to ask clarifying questions along with the Moderator.

5. Provide everyone with equally helpful or tight-lipped counter-examples. One of the things to keep in mind when you set up a counter-example is that you have a fair amount of control over how much information your new structure provides. This is an area in which your responsibilities as Moderator are very open to personal interpretation and style. On one extreme, you may choose to set up helpful counter-examples that lead the players away from error and toward the correct answer. On the other extreme, you may take the tight-lipped approach, building counter-examples which give away as little as possible, and perhaps even reinforce erroneous theories that they've developed.

For instance, let's say that a player guesses, "The structure must contain a red piece pointing at a blue piece," when in fact your rule has nothing to do with red pieces, blue pieces, or pointing. You could choose to build a very helpful counter-example, by (say) setting up a white structure consisting of a single yellow piece, which will strongly indicate to the player that the rule has nothing to do with any of those things. Alternatively, you can take the tight-lipped approach, and build a complex black structure containing many pieces, including a red piece pointing at a blue piece. This doesn't tell the players much at all, and may leave many of their erroneous theories about color and pointing intact.

You are under no obligation to be helpful or tight-lipped as a Moderator—this is a matter of personal style. The only official requirement is that you set up a new structure that definitively disproves the player's guess.

However, it is important that you be consistent. Over the course of a single game, choose a style and stick with it. Being helpful gives a slight advantage to the player who's guessing, because that player has the first chance to guess again using the new information. This is perfectly fair, as long as you're consistently helpful after all guesses. But if you're helpful sometimes, and tight-lipped at other times, you'll be providing an unfair advantage to the players who are lucky enough to get the helpful counter-examples. Of course, even when you've chosen to be tight-lipped, a particularly incisive guess may force you to build a very helpful counter-example. In that case, the guessing player deserves the resulting advantage.

WHEN THE GAME GOES ON TOO LONG

Sometimes, a secret rule can just be too difficult to unravel without help. Here's some advice for this situation.

Team-Style: In some cases, as players struggle with a challenging rule, they'll gradually begin working together, until the game becomes a kind of group effort, with players giving each other suggestions and telling each other their theories. They may even begin asking the Moderator for hints. In such a case, the Moderator may decide that a hint is in order, particularly if the players are openly sharing ideas about the solution.

Guidance Mode: If the players are floundering, the Moderator can decide to draw things to a close, by switching into Guidance Mode. At this point, they will take over the creation of all structures. The Moderator begins by making a structure that gives a small hint and marking it. After allowing a bit of time for players to consider the structure, the Moderator will create another structure, which provides a slightly bigger hint. The Moderator will continue to create and mark structures, each progressively more obvious than the last, until someone gets it. Guessing tokens are no longer required, players are allowed to call out possible rules at any time. The first person to call out the correct rule wins. Deciding when to switch to Guidance Mode is entirely up to the Moderator.

Surrender: When a rule is exceedingly difficult, one or more players may simply want to give up. That's OK. If someone chooses to drop out of the game, for whatever reason, the other players can simply continue playing. The Moderator may regard this as an indication that it's time to switch to Guidance Mode, but they should also be sensitive to the remaining players' desires. They might still be engaged and determined to figure out the rule themselves. On the other hand, if all players decide to surrender, the Moderator will reveal the rule (and remember to choose an easier one next time).

WHEN MISTAKES HAPPEN

Sometimes a Moderator will make a mistake that compromises the entire game. Being Moderator is a skill, not a science, and even the most experienced Moderator can make mistakes. When an error is discovered, any player may immediately demand that the game be terminated and a new game begun. If all players agree to continue, the Moderator should correct the mistake in the appropriate manner.

Mismarked Structure: The Moderator might incorrectly mark a structure and fail to fix it before a player has taken another action. If this happens, the Moderator should fix the mistake as soon as it's noticed.

Misunderstood Guess: The Moderator might misunderstand a player's guess and make a structure that does not disprove it. If this happens, the new structure must remain on the table and the Moderator must make another structure after the ambiguity is resolved.

Error in Disproving Structure: A similar mistake occurs when the Moderator sets up a structure that's (say) white according the player's guess, and then they realize that it's actually white according to the secret rule, too. Oops! As in the Misunderstood Guess, if this happens, the new structure must remain on the table and the Moderator must make another structure that actually disproves the guess.

Disproving Structure on the Table: The Moderator might miss the fact that one of the structures on the table disproves the player's guess and create another structure to disprove it. In this case, the guess stands, the new structure remains, and the player does not get their token back.

Declaring a Winner Incorrectly: There are many different ways to word any rule, and sometimes it's difficult for the Moderator to sort out whether or not a player's guess is identical to the secret rule. The Moderator will never accidentally declare a player's guess to be incorrect when it is in fact correct, because the only way to declare a guess incorrect is to provide a counter-example. However, it is possible to accidentally declare a guess correct, when in fact it's actually incorrect. When this happens, someone usually notices after the fact that the two rules are actually different, and a counter-example could have been constructed. Obviously, it's impossible to recover from such a mistake, since at that point everyone will have learned the secret rule. It probably won't have really mattered; given that the two rules were so similar, the game was probably about to end anyway. Nevertheless, the Moderator should be on their guard against this common mistake, as it does more or less invalidate the game, even when it's obvious who "would have won."

PLAYING WITH TWO

Zendo was originally designed for three or more people, but there are a couple of ways to play with just two.

Puzzle Mode: This option is basically assisted solitaire. One player simply serves as the moderator for the other, marking new structures when called upon, and building counter-examples as needed when guesses are made. There is no need for guessing tokens or quizzes.

Head-to-Head: If you're feeling competitive, players can alternate roles and compare scores. A game will consist of two rounds, with each player solving once and moderating once. After each round, the player will receive a score, based on how long it took them to guess the rule. The player with the lower score wins!

Score: Your score will be the total number of structures on the table at the end, with additional points added for any structures that were broken down during the game. You also receive two extra points each time you guess and are incorrect. Guessing tokens are used to track extra points for incorrect guesses and dissolved structures. There is no need for quizzes, so guessing stones will not be used for any other purpose. Be sure to make a note of the first player's score before starting the second puzzle.

Equal Difficulty: Before starting a head-to-head match, players must agree on the difficulty level of the rules they will be using. If the players choose to create their own rules rather than using the cards, they must still attempt to scale the difficulty level of their rules to match the challenge they agree upon.

HISTORICAL NOTES

Zendo was originally designed for Looney Pyramids, and many players will already have experience with the game in that format. Pyramid Arcade and other versions of the pyramid system will continue to provide a great way to play the game.

But for this standalone edition, Andrew Looney created a new, more exciting collection of shapes to play with. After trying numerous ideas, the trio of pyramids, wedges, and blocks emerged as the most fun assortment, best suited to the game. (Special thanks to Alison Frane for pointing out that the wedge was the missing link between the pyramid and the block, and to Tim Sieger for his help with 3D printing of prototype pieces in many shapes and sizes.)

Designer Kory Heath also acknowledges inspiration from the classic card game Eleusis, and has written at great length about the design history of the game. To read all about it, please visit his webpage: http://www.koryheath.com/zendo/design-history/

Zendo is presented here in an entirely abstract manner. However, it must be noted that the game was originally published with the theme of being students of a Zen master. Some players may still prefer this, while others may enjoy a different backstory, such as researchers using the scientific method. But after years of playing it with various themes, we've found that the best option is to present the game with no theme at all. Enjoy!

CREDITS

Game Design: Kory Heath
Piece and Rule Card Design: Andrew Looney
Packaging Design: Other Studio
Rulebooks Written By: Kory Heath, Andrew Looney, Laurie Menke

Zendo Turn Summary

- Build a New Structure
- Choose "Tell" or "Quiz"
- Guess the Rule, or Pass

Attribute Possibilites

(not a complete list)

Color:

- blue
- yellow
- red

Quantity:

- zero
- at least 1
- exactly 1
- exactly 2
- exactly 3

Shape:

- pyramid
- wedge
- block

Orientation:

- flat
- vertical
- upright
- upside-down
- weird

Interaction:

- touching / not touching
- grounded / ungrounded
- pointing / not pointing
- one on top of another
- more of a certain type

See page 3 for full definitions

LOONEY LABS