

Verbal Japanese Rules: Status Assessment

Version 1, 2010-11-24, Robert Jasiek

Preface

Since Verbal Japanese Rules are verbal, an official written rules text does not exist. Instead the knowledge about what the rules are comes from a context of a) verbal tradition, b) other written Japanese style rulesets, c) commentaries on such written rulesets and d) insight by rules experts. Tradition varies with time and location and the verbal rules nature allows for some scope of ambiguity; therefore one cannot speak of only one universal ruleset of Verbal Japanese Rules but tiny variation occurs. For the sake of this paper, neither Japanese style online rulesets nor Korean rules are included because they differ too significantly from what is commonly perceived as Verbal Japanese Rules in usage for mainly real world games.

The easy parts of Japanese style rules have been explained often enough. Here only the difficult part is explained for Verbal Japanese Rules - the status assessment after the regularly played alternation's first succession of two passes. In this paper, the following assumption is made: The players have already filled all two-sided dame, teire and basic endgame kos.

The players have the choice between agreement and disagreement about status assessment.

In practice, agreement is the by far more frequent case. If, by using the best available Go knowledge about life and death, the players agree on the status of all strings and on which intersections not in sekis are territory, then they remove stones as dead and score accordingly. Usually the players' agreement is created implicitly and averbally by performance of the removals of dead stones and the counting. Either player or both players have a right to seek verbally performed agreement by both though.

The scarce case is disagreement. The rest of the paper deals with it. For exceptional needs, extra procedural means of resumption or reconfirmation are also possible but beyond the scope of this paper; the reader can refer to their description in commentaries on written rulesets. Players might sometimes prefer to agree on abbreviating variations; for the sake of greater clarity, the examples always show non-cyclic variations up to their ending passes though.

Basic Rules

Rules

Regardless of the Verbal Japanese Rules' verbal nature, the basic Go rules apply also during status assessment. In particular, one must abide by these rules:

- There are two types of moves: plays and passes.
- Successive passes end alternate moving.

- Suicide is prohibited.
- Immediate recapture in a [basic] ko is prohibited.

The rules about successive passes and basic ko are ambiguous and usually Verbal Japanese Rules do not become more precise about them. Nevertheless, it cannot be avoided to interpret these rules better.

Rule of Move Types

A player can request that his opponent performs any pass explicitly so as to avoid confusion, which informal means like asking "Finished?" can create when possibly misinterpreted, e.g., as seeking the player's strategic advice about teire aji or as self-talk wondering whether indeed time for passing has come. In other words, saying "pass" when passing is recommended by the author and some tournament rulesets require it.

Sometimes (especially in former times in Japan) pass is not consciously accepted as a move type. Then informal means (like saying "I abandon my [current] right to move.") is used by a player: doing nothing on the board while giving the turn to the opponent and while retaining the player's right to possibly play again unless the opponent also does nothing on the board. Such an informal means is equivalent to a pass though, except for the failure to call it by the name "pass".

Rule of Successive Passes

The successive passes rule does not specify the necessary number of successive passes. However, if one thinks about it, then one notices that already two successive passes are successive passes and that hence this number is implied as sufficient to end alternate moving. I.e., the following more explicitly formulated rule has the same practical meaning for Verbal Japanese Rules: "Two successive passes end alternate moving."

Everybody understands the alternate moving from the game's beginning to the first succession of passes. However, status assessment relies on alternate moving, too. Besides status assessment can consider different variations (sequences of moves); usually each such variation must also end and here we see that in principle the successive passes rule affects every variation, too: A formally executed variation ends on two successive passes.

Basic Ko Rule

Often a "basic ko" is just called "ko". Since there are also long cycle kos, the author prefers to be more precise though.

In the rule itself, it is ambiguous whether "immediate" recapture allows intervening passes. The by far predominating opinion among rules experts on Verbal Japanese Rules is: Recapture is allowed after intermediate passes. I.e., the "immediate" prohibits only a recapture exactly two moves later, which also implies that both moves are plays. As a practical consequence, starting a new status assessment's variation or resuming the game disregards even the ko ban of a basic ko capture just before the alternation's ending passes.

The basic ko rule applies also during status assessment! The reader should not even dare to wonder whether instead any special hypothetical ko rules like in the Nihon Kiin 1989 Rules would apply. Verbal Japanese Rules are beautifully naive: "Let's simply assume that usage of the basic ko rule produces the desired behaviour!" Many players would not even know what a hypothetical ko rule is. Not every written Japanese style ruleset referred to as context has special hypothetical ko rules. And the good news is: Rules experts could find only a few rare shapes with possible status changes. Shapes at the game end are rarer than the already rare hidden basic ko bent-4-in-the-corner, which works just as desired also with the basic ko rule.

Thus application of the basic ko rule during a status assessment variation is very simple: Just apply it exactly as you would during the regular alternation.

Statuses

General

Under Verbal Japanese Rules, a player's string can be of one of these statuses:

- independently alive
- alive in seki
- dead

An intersection can be of one of these territory statuses in favour of a particular player:

- empty territory intersection
- territory intersection occupied by dead opposing stone
- not territory

After the final removal of dead stones, the case "territory intersection occupied by dead opposing stone" does not exist any longer.

The purpose of the status assessment (aka the analysis) is to determine the statuses of all the board's stones and intersections, at least as far as the players disagree.

No Territory in Sekis

Verbal Japanese Rules do not have any territory in sekis.

It is ultimately ambiguous though whether and possibly how dead stones (and scarcely also any necessary additionally thrown in dead stones) from within sekis might still be removed during status assessment. That conceptually sekis do not have territory at all suggests No while a related, special, exceptional procedure in the World Amateur Go Championship Rules suggests Yes. Therefore the

author recommends: Perform all such removals by means of alternate moving before the regular alternation's first succession of passes! This is the safe way to avoid losing a dispute by referee decision.

Determination of Independently Alive

Verbal Japanese Rules do not define "independently alive". Written Japanese style rulesets and verbal tradition ("Has two eyes.") are ambiguous enough to confuse more than to help. (E.g., tradition leaves it unclear what is an "eye".) Answers come from research results and commentaries of rules experts. Since no particular description is mandatory, players and referees can choose their preferred one for application. Especially each of these descriptions, for which formal definitions are available elsewhere, is known to work in general, except that "on at least one intersection" versus "on all intersections" leads to differences in pathological cases and this minor variation cannot be dissolved due to the ambiguity of Verbal Japanese Rules:

- Necessarily the player can establish a two-eye-formation of his on at least one intersection of the string.
- Necessarily the player can establish a two-eye-formation of his on all intersections of the string.
- Necessarily the player can establish an n-eye-formation of his on at least one intersection of the string.
- Necessarily the player can establish an n-eye-formation of his on all intersections of the string.
- Necessarily the player can establish a pass-alive formation of his without inside opposing stones on at least one intersection of the string.
- Necessarily the player can establish a pass-alive formation of his without inside opposing stones on all intersections of the string.

Instead of the traditional "having two eyes", these modern descriptions imply "necessarily can be transformed into having at least two single empty intersections".

Determination of Alive in Seki

With respect to Verbal Japanese Rules, it is unclear in how far especially research (about capturable-1 and capturable-2) by the author as rules expert may already serve as context overriding the much weaker descriptions by written Japanese style rules, not to mention the per-shape-example tradition. Given the overwhelming ignorance by regular proponents of Verbal Japanese Rules of the relation between these and the research results, currently it appears still safer to assume the following:

- Uncapturable strings might be alive in seki: A not independently alive but uncapturable string is alive in seki.

- It is ambiguous which capturable, not obviously dead strings might be alive in seki: A distinction is made on a per-shape-example basis.

Determination of Dead

A string is dead unless it is alive.

Once one has verified that a string is not alive, it is as simple as that. More complicated considerations are not needed.

Determination of Territory and Non-Territory Intersections

After removal or imagined removal of all those dead stones surrounded (regardless of the empty intersections being surrounded together with those stones) by independently alive opposing stones, a player's territory intersections are exactly the then empty intersections surrounded by independently alive opposing stones.

An intersection is not territory unless it is either player's territory.

The noteworthy aspect is the static nature of territory determination. One does not need to consider any move-sequence variations for the territory determination itself. They are necessary only for status assessment of strings.

Other General Aspects of Status Assessment

General Verification Methods

Verbal Japanese Rules do not prescribe any particular general verification method. Therefore players or referees may choose whichever method they consider the most suitable. Especially the following methods are known:

- Purely hypothetical analysis: Everything like move-sequences, decision-making and status assessments is discussed only verbally and without putting any stones on the board.
- Hypothetical analysis using physical stones on the playing board: The final position and its numbers of prisoners are stored mentally. Then one variation after another is laid on the board using physical stones and related aspects are discussed. Afterwards the final position and its numbers of prisoners are restored.
- Hypothetical analysis using physical stones on a different board: The final position and its numbers of prisoners are left untouched during the analysis. Another board and other stones are used for studying variations and related aspects.

Whichever method is used, it is essential to use analysis only for the purpose of determining statuses: life and death statuses of strings and territory statuses of intersections. Never may any status assessment alter the final position and its numbers of prisoners. Be careful not to alter them accidentally!

What to Analyse

For the final position, strings can be analysed for their life and death status and intersections can be analysed for their territory status. Since all stones of a particular string have the same status, one should analyse on a per-string basis rather than on a per-stone basis.

The players do not need to analyse all but it suffices that they analyse just all they disagree on.

Where possible and preferred, possibly several questions can be answered together, e.g., the status of same-coloured nearby strings or the territory status of connected intersections surrounded by independently alive stones of the same colour. It is also possible to reuse earlier analysis variations. If at least one of the players did not understand such an over-efficient procedure, then one could fall back to more detailed procedures again.

Order of Analysis

Life and death statuses of all strings must be known before one can safely assess territory statuses of the intersections because the latter depends on the former. Since in principle (except for pathological positions exhibiting the limits of Verbal Japanese Rules) statuses of every two strings can be determined independently from each other, it does not matter in which order the strings are analysed for their statuses, provided both players always know which object is currently being analysed. Similarly the order in which the intersections' territory statuses are determined is immaterial.

Perfect Play?

As ambiguous rules, Verbal Japanese Rules do not prescribe perfect play in status assessment variations explicitly. Nevertheless, the context of Verbal Japanese Rules suggests that in case of doubt perfect play is the ideal. Since there are potentially infinite numbers of possible variations, one cannot analyse them all or even a noteworthy fraction. Still all relevant, representative variations and related decision making must be considered, if in doubt. Bad variations or decisions might be tested to be refuted and overridden by good variations and decisions. As long as the players or referees are unsure about what is the truth of a status question, further variations and decisions should be taken into account. As soon as agreement about a particular status question is reached beyond doubt, further alternatives can be ignored as being supposedly obviously equivalent.

Unlike hamete during the regular alternation, intentional mistakes during status assessment are prohibited because the rules concepts of status assessment for the final position are about life, death and territory and not about deceiving one's opponent about that. Beginners and sometimes stronger players are bound to make occasional unintentional mistakes though. This cannot be helped. In a tournament, only whoever is officially involved in a game may directly influence it. First of all, this is the game's players themselves. In case of a dispute or a watching referee, this can also be the referees in charge. During the game and until the result agreement, kibitzers should contact only the referee but not the players.

Decision Making for String Status Analysis

Suppose you are analysing a particular status question like "Is the string X alive or dead?". How

does decision making work? It works pretty much like mentally reading ahead during the regular alternation. Instead of having a current position, you have the final position to start from. You look at that particular position, ask yourself, e.g., the aforementioned question, imagine variations of move-sequences that test possible answers for the question and bring such variations in relation to each other to decide the relevant ones. To consider a more specific example, let us ask: "Is your string X alive?" Then, in each variation studied for answering this question, you are assumed to try bringing it to life while your opponent is assumed to try bringing it to death. If necessarily you succeed, then it is proven that X is alive. If necessarily your opponent succeeds, then it is proven that X is not alive, i.e., dead. Such a process is called proof-play. How does one find out which of the two statuses can be forced necessarily? This involves relating different variations to each other.

Usually, in Verbal Japanese Rules disputes, players use informal talk. Particularly cute players or referees might prefer a more methodical study, as is outlined below.

Different variations are related to each other if they have the same move-sequence up to a particular next move decision or if the next move decision just starts those variations. It is the same player's turn for the next move. Usually that player has several legally available alternative moves. These cases can occur during the decision making for the example question "**Is your string X alive?**":

- The **player** of string X has the turn and **all** next moves yield the answer "String X is **alive**.": This answer is forwarded upwards in the game tree.
- The **player** of string X has the turn and **part** of his next moves yield the answer "String X is **alive**.": This answer is forwarded upwards in the game tree. It is possible because one assumes the player to choose some suitable next move.
- The **player** of string X has the turn and **none** of his next moves yield the answer "String X is alive.": The answer "String X is **dead**." is forwarded upwards in the game tree.
- The **opponent** of string X has the turn and **all** next moves yield the answer "String X is **alive**.": This answer is forwarded upwards in the game tree.
- The **opponent** of string X has the turn and **part** of his next moves yield the answer "String X is alive.": The answer "String X is **dead**." is forwarded upwards in the game tree. It is possible because one assumes the opponent to choose some suitable next move for that opposing aim.
- The **opponent** of string X has the turn and **none** of his next moves yield the answer "String X is alive.": The answer "String X is **dead**." is forwarded upwards in the game tree.

Analysis of a decision making for a particular string status question starts at the game tree's leaves (i.e., where the variations end in successive passes) and ends at the game tree's root (i.e., where the variations start from the regular alternation's final position) by outputting the answer to the question.

By the above cases with their all / part / none conditions, one can see the relevance of perfect play or, in other words, the impact of exhaustive next move consideration. In simplifying theory, one must always study all possible next moves. In practice, this is impossible of course. However, one must be aware of the immanent danger that just one overlooked or misread move at any level of the

game tree might alter a condition from "all" to "part", from "part" to "none" or vice versa and thus possibly might alter also the output answer. Partial analysis does not in general always produce correct answers. This risk belongs to the nature of Verbal Japanese Rules. Therefore players and referees have an implied duty of preferably great carefulness.

First Move

The predominating view of rules experts and the implied suggestion from official rules example diagrams is: The opponent of the currently analysed string moves first. Needless to say, the start position of each analysis variation is the "final position" of the game's regular alternation.

Long Cycles

Treatment of any long cycle repetitions in the final position is undefined (and subject to arbitrary referee decisions) with these exceptions:

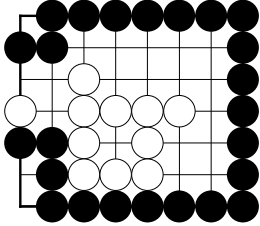
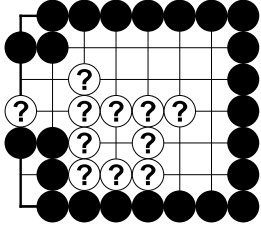
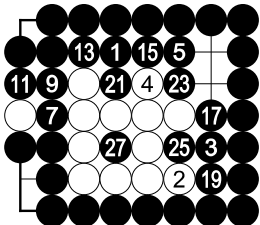
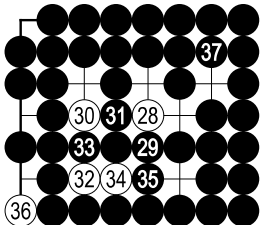
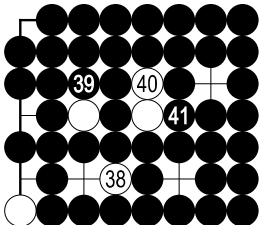
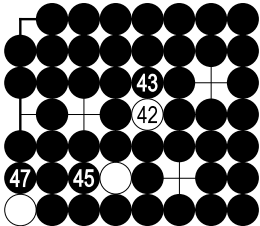
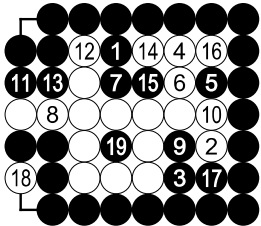
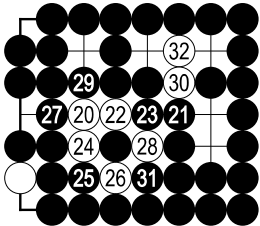
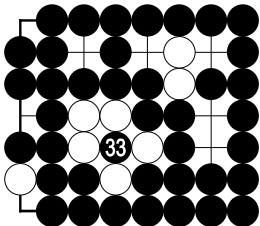
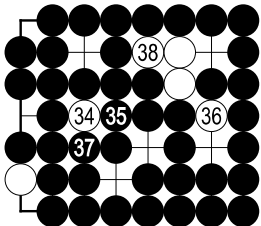
- Obviously dead stones of a sending-2-returning-1 shape are considered dead.
- The strings of a regular, stable-state sending-2-returning-1 seki shape are considered alive in seki. Per variation, infinite disturbance is prohibited.

Examples of Standard Shapes

<p>Example 1</p>	<p>Are the strings independently alive?</p>	<p>Suppose the players verify this by means of a black pass-alive formation without inside opposing stones.</p>	<p>① pass, ② pass. Var 1.1</p>
<p>③ pass, ④ pass. Var 1.2</p>	<p>③ pass, ④ pass. Var 1.3</p>	<p>Var 1.4</p>	<p>⑦ pass, ⑧ pass.</p>

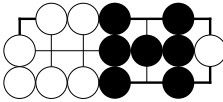
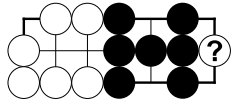
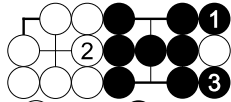
If the players study the four variations, then the decision making, if done formally instead of using informal reading ahead descriptions, is as follows: Var 1.3 + 1.4 have the same move-sequence until the next move 2, when it is Black's turn. Black as the defender of analysed strings wants to achieve the answer yes. **Part** of the variations 1.3 + 1.4 have this answer: Var 1.3 has it. Therefore, at move 2, Black chooses Var 1.3 and disregards Var 1.4. The answer for Var 1.3 and 1.4 at move 2 is forwarded upwards in the game tree to move 1 as in these variations.

Var 1.1, 1.2 and 1.3 all have in common that their first move as the next move just starts the variation. Therefore these variations can be related to each other at this moment. It is the turn of the opponent White. **All** these variations have the answer yes. Therefore the decision making's result does not favour the opponent; whichever first move he tries, the answer is yes. It is the answer at the game tree's root, so it is the final answer to the question and we know that the analysed strings are independently alive.

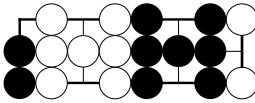
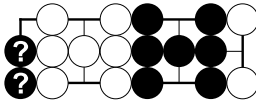
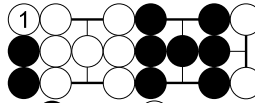
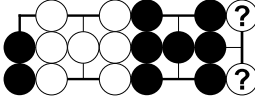
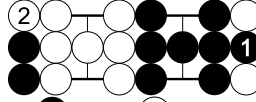
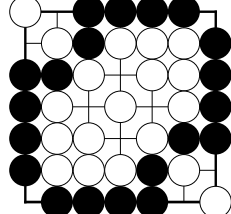
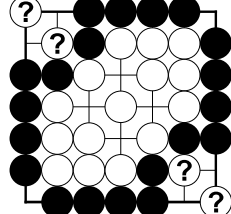
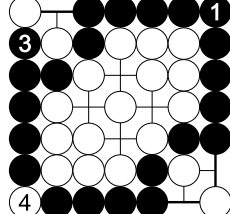
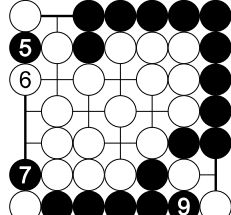
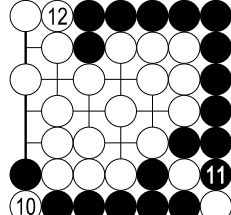
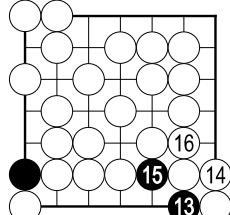
 <p>Example 2</p>	 <p>Are the marked white strings independently alive?</p>	<p>Suppose the players verify this by means of a white two-eye-formation on at least one intersection of the initial white strings' stones. In Var 2.1 + 2.2, White does not get any white two-eye-formation there.</p>
 <p> ⑥ pass, ⑧ pass, ⑩ pass, ⑫ pass, ⑭ pass, ⑯ pass, ⑰ pass, ⑲ pass, ⑳ pass, ㉒ pass, ㉔ pass. Var 2.1 </p>		
 <p> ④④ pass, ④⑥ pass, ④⑧ pass, ④⑨ pass. </p>	 <p>Var 2.2</p>	
	 <p> ③⑨ pass, ④⑩ pass. </p>	

Assume the players use informal talk about their two variations, which they consider representative. They would say something like: "In typical variations like Var 2.1 and 2.2 or in similar variations, White cannot get a two-eye-formation on at least one intersection of the initial white strings. Whatever White tries, he fails. Therefore the white strings are not independently alive." Note that, at the end of Var 2.2, White does not have any two-eye-formation; he has not even got any stone under his initial stones.

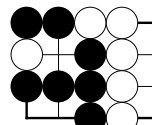
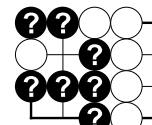
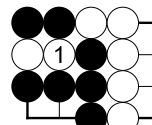
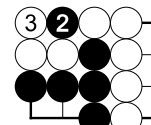
A next study question for the same strings might be: Are they uncapturable? By reusing especially the early parts of Var 2.1 and 2.2, one would conclude: no. Since the white strings are neither independently alive, uncapturable nor a traditionally known seki precedent, the next conclusion could be: Those strings are dead.

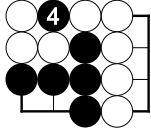
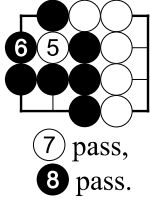
 <p>Example 3</p>	 <p>Is the marked white string independently alive?</p>	<p>Suppose the players verify this by means of a white two-eye-formation on at least one intersection of the initial white string's stone.</p>	 <p>④ pass, ⑤ pass. Var 3.1</p>
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In variations like Var 3.1, White does not get a white two-eye-formation under the string studied for its life and death status. The condition "on at least one intersection" refers to the initial string's intersection. It is immaterial that, in the variation, White establishes a two-eye-formation elsewhere. Life may be created only locally in relation to an initial, currently analysed string's intersection.

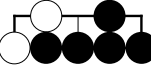
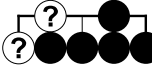
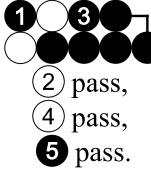
 <p>Example 4</p>	<p>Suppose the players want to analyse different sets of strings. They do so one set after another.</p>	 <p>Question 4.1: Is the marked black string uncapable?</p>	 <p>② pass, ③ pass. Var 4.1.1: Answer: No.</p>
 <p>Question 4.2: Are the marked white strings independently alive?</p>	 <p>③ pass, ④ pass. Var 4.2.1: Answer: No.</p>	<p>The marked white strings are not independently alive because White does not get any white two-eye-formation on at least intersection of the initial, marked strings' intersections.</p>	
 <p>Example 5</p>	 <p>Are the marked white strings uncapable?</p>	 <p>② pass. Var 5.1</p>	
 <p>⑧ pass.</p>		 <p>①⑦ pass, ①⑧ pass.</p>	

The players consider Var 5.1 to be sufficiently representative and conclude from it that the marked white strings are uncapable. Just what is to be expected from an "ordinary" seki like in Example 5.

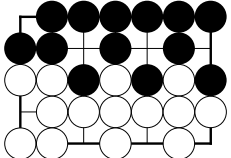
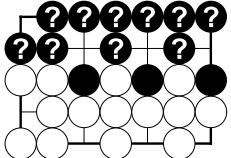
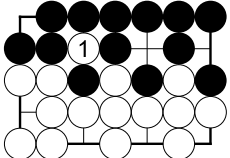
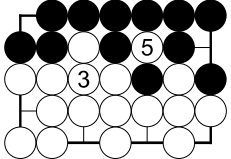
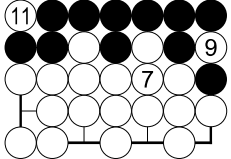
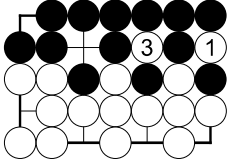
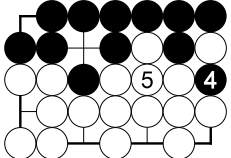
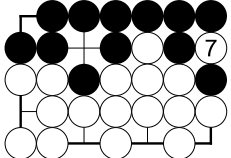
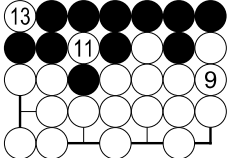
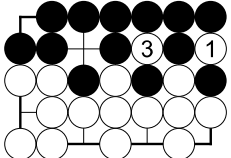
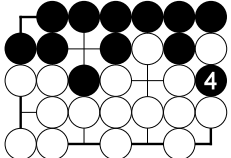
 <p>Example 6</p>	 <p>Are the marked black strings independently alive?</p>	 <p>Var 6.1</p>	
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	 <p>⑦ pass, ⑧ pass.</p>	<p>Since even White's cutest attack does not prevent Black from getting a pass-alive formation of his without inside opposing stones on all intersections of the marked black strings, the players conclude that they are independently alive. Snapbacks or capturable nakade strings work as expected.</p>
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Examples with Basic Kos

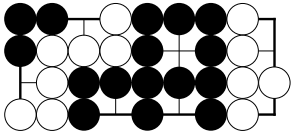
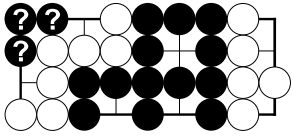
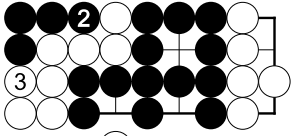
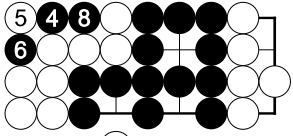
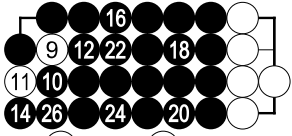
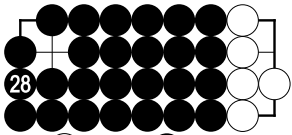
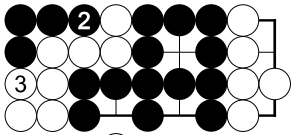
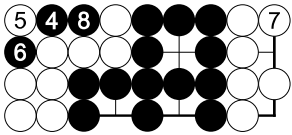
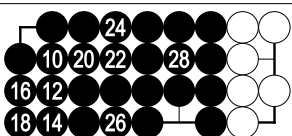
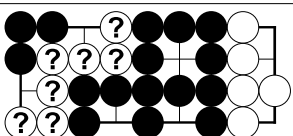
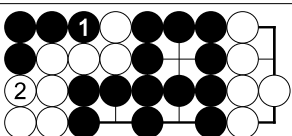
 <p>Example 1</p>	 <p>Are the marked white strings independently alive?</p>	<p>Suppose the players verify this by means of a white n-eye-formation on all intersections of the initial white strings' stones.</p>	 <p>① ② pass, ④ pass, ⑤ pass.</p> <p>Var 1.1: At move 2, the basic ko rule prohibits White to recapture in the basic ko immediately.</p>
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The marked white strings are not independently alive because White does not get any white n-eye-formation on all intersections of the initial white strings' stones.

 <p>Example 2</p>	 <p>Is the marked black string uncapturable?</p>	 <p>② pass. Var 2.1</p>
 <p>③ ④ pass, ⑥ pass.</p>	 <p>⑦ ⑧ pass, ⑩ pass, ⑫ pass, ⑬ pass.</p>	 <p>① ② pass. Var 2.2</p>
 <p>④ ⑤ ⑥ pass.</p>	 <p>⑦ ⑧ pass.</p>	 <p>⑨ ⑩ pass, ⑫ pass, ⑭ pass, ⑮ pass.</p>
 <p>① ② pass. Var 2.3</p>	 <p>④ ⑤ pass, ⑥ pass.</p>	

For the studied variations, the players use careful decision making. Up to the next move 5 by White, Var 2.2 and 2.3 have the same move-sequence. Therefore, at this moment, they may be related to each other in the decision making. Var 2.2 gives the answer "No, the marked black string is not uncapturable." while Var 2.3 gives the answer "Yes, the marked black string is uncapturable.". **Part** of these two studied next moves 5 give the answer no. White as the attacker chooses a variation with that answer: Var 2.2. The answer no is forwarded upwards in the game tree. Since the players study only the three variations, the next interesting relation between them is at move 1 being the next move, where the varying move choice must also be studied.

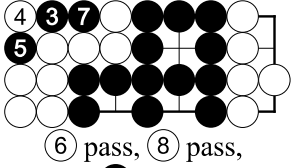
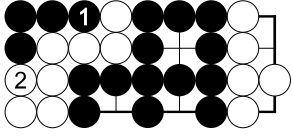
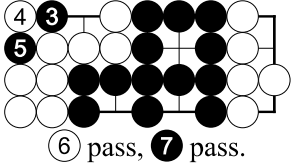
With move 1 being the next move, all the variations just start. As has already been said, move 1 of Var 2.2 and 2.3 yields the answer no. Looking at Var 2.1, also its move 1 gives the answer no. So **all** considered next moves 1 of White give the answer no. Thus White chooses one of them and the overall answer is no, the marked black string is not uncapturable.

 <p>Example 3</p>	 <p>Question 3.1: Is the marked black string independently alive?</p>	<p>Suppose the players verify this by means of a black two-eye-formation on all intersections of the string.</p>
 <p>① pass. Var 3.1.1</p>	 <p>⑦ pass. At move 7, the basic ko rule prohibits White to recapture in the basic ko immediately.</p>	 <p>⑬ pass, ⑮ pass, ⑰ pass, ⑲ pass, ⑳ pass, ㉓ pass, ㉕ pass, ㉗ pass.</p>
 <p>⑳ pass, ㉓ pass.</p>	 <p>① pass. Var 3.1.2</p>	 <p>At move 7, the basic ko rule prohibits White to recapture in the basic ko immediately.</p>
 <p>⑨ pass, ⑪ pass, ⑬ pass, ⑮ pass, ⑰ pass, ⑲ pass, ⑳ pass, ㉓ pass, ㉕ pass, ㉗ pass.</p>	 <p>Question 3.2: Is the marked white string uncapturable?</p>	 <p>Var 3.2.1</p>

To answer question 3.1, the players choose to study Var 3.1.1 and 3.1.2. At White's next move 7, these variations start to differ. Either sequence creates a black two-eye-formation on all intersections of the initially marked string though. Note that also the two single empty intersections belong to a two-eye-formation. Therefore **all** considered next moves 7 in the two variations give the answer "Yes, the marked black string is independently alive.". Whichever next move 7 the attacker

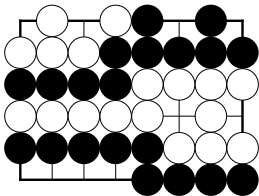
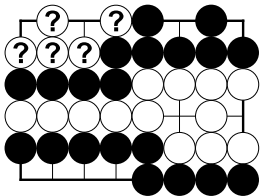
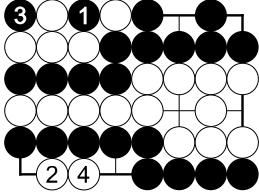
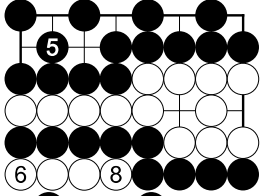
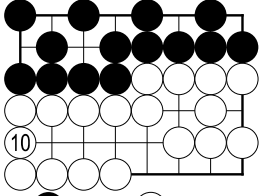
White chooses, the answer is yes; White has to choose some such move.

This answer is forwarded upwards in the game tree to its root. There the lazy players consider only one move (White's starting pass) as the next move 1 and, for it, the answer is yes. Therefore **all** considered (all of only one considered at all) next moves 1 give the answer yes. The studied black string is independently alive.

 <p>⑥ pass, ⑧ pass, ⑨ pass.</p> <p>At move 6, the basic ko rule prohibits White to recapture in the basic ko immediately.</p>	 <p>Var 3.2.2</p>	 <p>⑥ pass, ⑦ pass.</p> <p>At move 6, the basic ko rule prohibits White to recapture in the basic ko immediately.</p>
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To answer question 3.2, the players choose to study Var 3.2.1 and 3.2.2. At Black's next move 7, these variations start to differ. Var 3.2.1 gives the answer "No, the marked white string is not uncapturable." while Var 3.2.2 gives the answer "Yes, the marked white string is uncapturable." **Part** of the attacker Black's next moves gives the answer no and Black chooses Var 3.2.1 as some such variation.

This answer is forwarded upwards in the game tree to its root. There the players consider only one move as the next move 1 and, for it, the answer is no. Therefore **all** considered (all of only one considered) next moves 1 give the answer no. The analysed white string is not uncapturable.

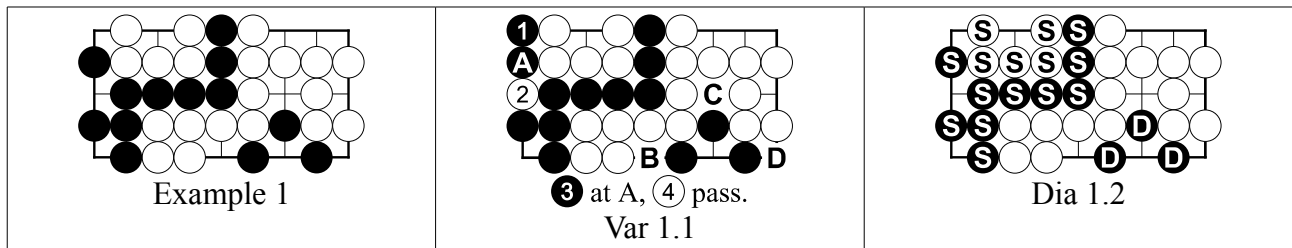
 <p>Example 4</p>	 <p>Are the marked white strings independently alive?</p>	<p>Suppose the players verify this by means of a white pass-alive formation without inside opposing stones on all intersections of the strings.</p>
 <p>Var 4.1: At move 2, the basic ko rule prohibits White to recapture in the basic ko immediately. Therefore he tries a ko threat.</p>	 <p>⑦ pass, ⑨ pass.</p>	 <p>⑪ pass, ⑫ pass.</p>

In a proof-play variation, remote, unrelated big ko threats are futile. The question to be answered is: "Are the marked white strings independently alive?" The question was not: "Can White improve his territory score?" Proof-play answers status assessment questions - it does not answer direct questions of territorial values.

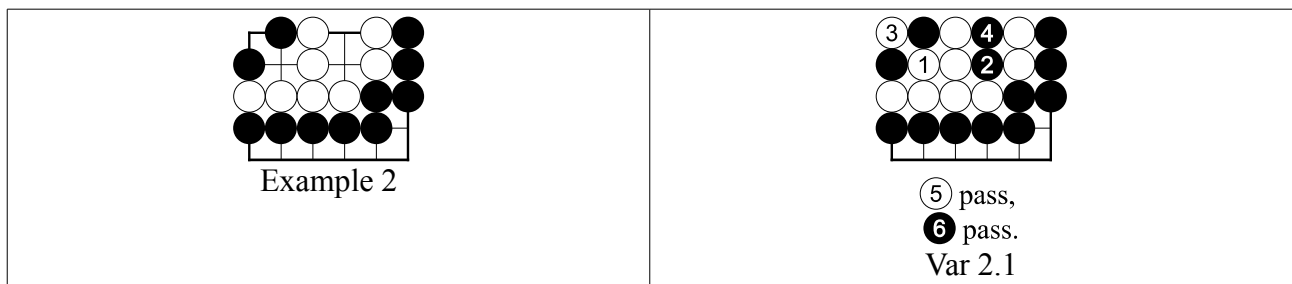
To answer the posed analysis question, Black tries to prevent while White tries to achieve a white pass-alive formation on all intersections of the marked strings. White does get a pass-alive

formation but it is at the wrong place and not locally related to the marked strings: The pass-alive formation does not cover all intersections of the marked strings. In fact, it fails to cover even one intersection of even one of the marked strings. Hence the answer is no; the marked white strings are not independently alive.

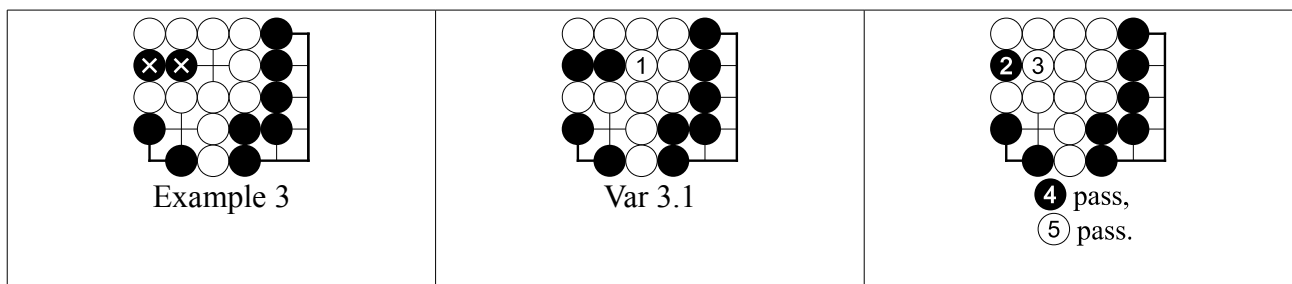
Examples of Difficulties



The cycle of Var 1.1 could recur forever. Verbal Japanese Rules say nothing about long cycles during status assessment (the collect prisoners concept in a cycle repeated a hundred times does not work because numbers of prisoners are restored after status agreement is done). Therefore the implied precedental rules about sending-2-returning-1 have to be applied. The strings of the regular, stable-state sending-2-returning-1 seki shape are considered alive in seki; they are marked by S in Dia 1.2. Similar cycles starting at B, C or D in the Var 1.1 diagram could be played but the black stones there are obviously dead (using other variations, White can remove them without playing in a cycle) and the related precedental rule about obviously dead stones in sending-2-returning-1 shapes applies, which lets the black stones there be dead (marked as D in Dia 1.2).



Due to the optional Var 2.1, Example 2 has to be considered a precedent for Verbal Japanese Rules: The white string and the small black strings form a seki.



The white string and the two black single stone strings are alive in seki and the marked black string is dead. Var 3.1 was possible during the regular alternation until the first succession of two passes. Verbal Japanese Rules are undefined as to whether throw-in prisoners may still be collected during the status assessment or later. If then Example 3 is still on the board, the referee is bound to make a rather arbitrary decision; e.g., unpredictably he might choose from these more or less reasonable options:

- The game is declared a default jigo.

- A substitute game has to be played.
- After the regular alternation, collecting prisoners from sekis is impossible.
- After the regular alternation, collecting prisoners by means of a seki-maintaining sequence like Var 3.1 is possible.
- 3 black stones are taken from the bowl and added to the prisoners.
- 2 black stones are taken from the bowl and added to the prisoners.
- If the game result (winner or jigo) is unaffected by 3 extra black prisoners, then that game result holds. Else use either of the first two options.
- If the game result (winner or jigo) is unaffected by 2 extra black prisoners, then that game result holds. Else use either of the first two options.

Because of the great scope of variety for the referee decision, White is very well advised to avoid any risk by getting his prisoners already during the regular alternation.