

TABLE 1  
Model of Expert Performance

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Win	<p><i>If there is a row, column, or diagonal with two of my pieces and a blank space,</i>  <i>Then play the blank space (thus winning the game).</i></p>
Block	<p><i>If there is a row, column, or diagonal with two of my opponent's pieces and a blank space,</i>  <i>Then play the blank space (thus blocking a potential win for my opponent).</i></p>
Fork	<p><i>If there are two intersecting rows, columns, or diagonals with one of my pieces and two blanks, and</i>  <i>If the intersecting space is empty,</i>  <i>Then move to the intersecting space (thus creating two ways to win on my next turn).</i></p>
Block Fork	<p><i>If there are two intersecting rows, columns, or diagonals with one of my opponent's pieces and two blanks, and</i>  <i>If the intersecting space is empty,</i>  <i>Then</i>  <p style="padding-left: 40px;"><i>If there is an empty location that creates a two-in-a-row for me (thus forcing my opponent to block rather than fork),</i>  <i>Then move to the location.</i>  <i>Else move to the intersection space (thus occupying the location that my opponent could use to fork).</i></p> </p>
Play Center	<p><i>If the center is blank,</i>  <i>Then play the center.</i></p>
Play Opposite Corner	<p><i>If my opponent is in a corner, and</i>  <i>If the opposite corner is empty,</i>  <i>Then play the opposite corner.</i></p>
Play Empty Corner	<p><i>If there is an empty corner,</i>  <i>Then move to an empty corner.</i></p>
Play Empty Side	<p><i>If there is an empty side,</i>  <i>Then move to an empty side.</i></p>

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goals, this depth-based hierarchy alternates between considering rules oriented towards offensive and defensive goals, thus integrating them.

We hypothesize that expert tic-tac-toe players use such a depth-based conflict resolution method to decide among applicable rules. It seems to be the only simple conflict resolution method that invariably leads to the optimal move. The Appendix indicates that a computer simulation that utilizes this conflict resolution method produces perfect performance, far better than simulations that use five alternative schemes for resolving conflicts among