GAT110 — Fall 2011
Game History
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Paper 1
Race Games
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Game Analysis

Senet is an ancient racing game. It is played by two players with five pieces each, on a track of thirty spaces. To win, a player must move all of his pieces along the track and off the board before his opponent does the same. Players take turns throwing four two-sided dice to move their pieces along the track. A player may group his pieces to form barriers that limit his opponent's movement options, and landing on an opponent's piece sends it back to where the player moved from.

Sorry! is a modern board game. In *Sorry!*, each player must move her four pawns out of her START, around the board and into her HOME. Players take turns drawing and playing cards from a deck and following the instructions on each card. Most cards call for the player to move one pawn forward the number of spaces indicated by the card; some have special instructions that can allow a pawn to switch places with an opponent's, move backwards, etc. Landing by exact count on an opponent's pawn sends it back to its owner's START.

Super Mario Racing Tournament is a digital side-scrolling platform kart racing game. The player controls one of several *Mario* characters and attempts to reach the end of a variety of racetracks before his computer-controlled opponents. Items found in boxes in the tracks grant powers and bonuses, such as flight, speed boosts, invincibility, etc. Coins may be collected to shop between races for these items, as well as keys to unlock a bonus track.

In each of these games, the object is to move from the beginning to the end of a course before one's opponent or opponents. Each game has ways for one player to impose some form of disadvantage upon another: in *Senet*, by landing on an opponent's piece or by forming a barrier in front of him; in *Sorry!*, by landing on an opponent's piece or by the playing of certain cards; and in *Racing Tournament*, by attacking the opponents with items. Each game also incorporates some degree of randomness: in *Senet* by the roll of the dice and in

Sorry! by the luck of the draw; in *Racing Tournament*, each of the item boxes found throughout the racetracks contains a randomly-selected item.

The contours of the tracks in *Racing Tournament* differ in the placement of obstacles and item boxes, but the goal is still to move from one end of the track to the other, and there is, for the most part, only one possible route to take; the track in *Senet* and the board in *Sorry!* are similarly linear, and, akin to the bonus item boxes and obstacles found in *Racing Tournament*, *Senet*'s track features safe zones and a hazard space that sends pieces back to the start of the track, and *Sorry!*'s board has Safety Zones and Slides that can allow (or force) a player to attack an opponent (or herself).

Experience Analysis

The experiences of playing *Senet* and *Sorry!* are much more similar to one another than to that of *Racing Tournament*.

In *Senet*, I derive satisfaction from making good die rolls, blocking and switching with my opponent and bringing pieces into the safe zones and, rarely, off the board; I feel frustration when my opponent impedes my progress, or when the state of the game forces me to take an unfavorable action. In *Sorry!*, I enjoy and am frustrated by the same kinds of things as in *Senet*: I like playing a good card, attacking my opponent and entering my Safety Zone and HOME, and I don't like when my opponent attacks me.

However, *Sorry!* also requires the player to play a 1, a 2 or a SORRY card to bring a pawn onto the board. As such, it is frustrating to draw card after card waiting for one of these when one has no pawns that may be moved. *Senet* doesn't quite have a perfectly analogous frustration, though there is occasionally a similar slowdown to the game toward the end, when one or both players have their pieces clumped into barriers at the end of the track and mutually limit each other's movement options.

The joys and pains of playing *Racing Tournament* have, for the most part, little to do with those of the other games. Dexterity and coordination, which are not present at all in *Sorry!* or *Senet*, make or break a game of *Racing Tournament*, along with carefully deciding when to take advantage of the bonuses granted by the items. (Interestingly, if one plays *Sorry!* with the alternate rules of having a hand of five cards from which to choose one's play, a similarity arises with *Racing Tournament*, which allows the player to hold on to a "hand" of items.) *Racing Tournament* also suffers from imperfect collision detection, which certainly has no equivalent in the other games. *Racing Tournament* also adds additional elements of simulation to the play experience: the player sees his character driving a go-kart, and feels the effects of the physics simulation presented by the game, including acceleration and gravity.

The only clear similarity in play that *Racing Tournament* bears to the others is the analogy between landing on an opponent's piece in *Senet* or *Sorry!* and attacking an opponent with an item; all are conferred by a combination of luck and skill, and all confer a temporary advantage.

Modification

I modified the rules of *Sorry!* to change the flow of the game by requiring each player to choose who plays next. To discourage any one player from endlessly taking turn after turn, players keep track, using a six-sided die, of how many consecutive turns they have not gotten to play, and may take special actions when they have been skipped enough times. My primary goal was to increase the variety within a game, and secondarily I aimed to shorten the game and to make it easier to bring pawns into play.

The player currently taking his turn is known a the Active Player, or AP. After the AP completes his turn, drawing and playing a card as per the normal

rules of the game, the other players increment their dice. When a player's die matches the total number of players, he resets the die back to 1, and then has the choice of either bringing a pawn out of START or moving a pawn already on the board the roll of one die. If he rolls a 6, he instead moves a pawn from the board directly to his HOME. Finally, the current AP chooses the next AP, who may be anyone playing, including the current AP himself. The new AP resets his die back to 1, and takes his turn normally, drawing and playing a card and following its directions. Play continues in this manner until a player brings each of his pawns to his HOME, either by the draw of cards, by die rolls or by some combination thereof.

  For example, Red, Blue, Yellow and Green are playing. Red is the AP, so her die shows 1. Blue, Yellow and Green's dice show 3, 2 and 3, respectively. Red draws and plays a 2, and moves a pawn from START. The 2 card calls for a second draw, so the other players do not increment their dice, as the AP's turn is not yet complete. Red draws and plays an eight, and moves a pawn forward eight spaces. The AP's turn is now complete, and Blue, Yellow and Green increment their dice to 4, 3 and 4. Blue and Green's dice have reached 4, so, in clockwise order from the AP, they take their special actions: Blue moves a pawn from start and Green rolls a four, and moves a pawn forward four spaces. Blue and Green reset their dice to 1. Red, Blue, Yellow and Green's dice now show 1, 1, 3 and 1, and Red may now choose the next AP. To prevent Yellow from taking a special action at the end of the next turn, Red declares him as the next AP, and Yellow must reset his die to 1 and take a normal turn.

Testing Report

  This modification underwent multiple minor revisions throughout the testing process. Originally, a player's die only had to reach 3 to trigger its special actions, and for a few games, a roll of either a 5 or a 6 would allow a

player to move a pawn directly to HOME; these changes caused greater chaos, as they made it harder for the AP to curtail the advance of his foes, and it was more dangerous to force an opponent repeatedly not to play. The need to balance the potential power of taking a normal turn (and taking multiple consecutive turns) with the advantages of being skipped and taking the special actions associated therewith became the primary focus of testing.

Testing was very enlightening. At least ten sessions of play testing occurred with some twenty or so testers[1], occasionally with minor rule tweaks between games. Two-, three- and four-player games were played. The overall reactions of the players were generally positive: as expected, they were pleased to be able to introduce pawns to the board more easily than under the game's normal rules, and by the increase in the game's pace and the decrease in its length. Players appreciated the variety added by the new mechanic, and enjoyed the new opportunities for the development of cunning strategy that came with it. They frequently said that the game was "fun," and, more importantly, they seemed to mean it.

What was unexpected was the emergence of the desire to be skipped. Players seemed to prefer taking special actions over taking a normal turn. The addition of the mechanic of the dice was intended to alleviate the frustration of having one's turn skipped, but it brought with it the new frustration of being required to take one's turn and reset one's die to 1. The players' reaction to this new strategy seemed to be somewhat mixed; most players found it to be a novel and intriguing twist not to want to take one's turn, while others saw it as a chaotic disruption of the natural flow of the game.

In a few tests, the strategy of the opening player never giving the turn to anyone else was used, and in each case of such play, that player lost the game. The margin of victory varied greatly, so it could be that this tactic may

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[1]Due to imperfect bookkeeping, a complete list of play testers is unavailable. Confirmed testers were Matt Benson, Devon Brom, Niall Coursey, Austin Greene, Alek Hiebert, Tyler Harper, Dave Kanigle, Oliver Kring, Chris Morris, Khalil Moutrie, Ashley Olmsted, Riley Pannkuk, Tristan Schneider, Paul Schwarzwalder, Davis Standley, Keith Tallon, Matt Taylor, Rob Zwick and Val Zwick.

actually prove advantageous in certain cases or for certain stretches within a game: an intrepid player may be able to sniff out just the right time to begin hogging all the turns for the home stretch of the game. Further testing would be required to find whether such a strategy could exist.

Finally, the game was also tested using the alternate rules of *Sorry!* that give the player a hand of five cards. This proved to be a most interesting set of parameters: without these optional rules, a player's decision whether to take more than one consecutive turn was also tempered by the uncertainty of what card he would play next; with a five-card hand, however, a player can essentially see five moves into his future, and, even given the threat of the possibility of a string of lucky die rolls by his opponent, he may be much more willing to take that chance.

Further Modifications

The questions that remain to be answered are largely numeric: how many turns need to go by before a player may take special actions? Should there be a limit to the number of turns a player is allowed to take in a row? Should a hand of cards be used, and how many cards should be in it? With a great deal of further testing, these numbers may emerge.

Data seem to indicate that a slight advantage may exist for a player to take a great number of consecutive turns. This can be balanced by reducing the number that a player's die must reach before he may take special actions, thereby increasing the disincentive of this strategy. Alternately, a rule may be added that requires a player to declare a new AP after any player takes special actions. If a hand is used, it would be interesting if the AP were not allowed to replace the cards he plays until he declares a new AP.

Finally, an additional degree of chaos could be introduced with the

creation of a second deck of Global Effect cards. Another die is added to the game that increments on every turn and doesn't reset until it reaches its maximum, at which point a Global Effect card is brought into play that requires all players to move one or more pawns forward one space, or to bring a pawn out of START if possible, or to send a pawn directly to HOME, or various other dramatic effects.